

GOLF COURSE NEWS

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MASTER GREENKEEPER

Terry Buchen (right) has earned Master Greenkeeper status, as bestowed by the Right Honourable Lord Griffiths MC (left), captain of the Royal & Ancient Golf Club of St. Andrews. Buchen is one of only three American superintendents to be so honored. See story on page 20.

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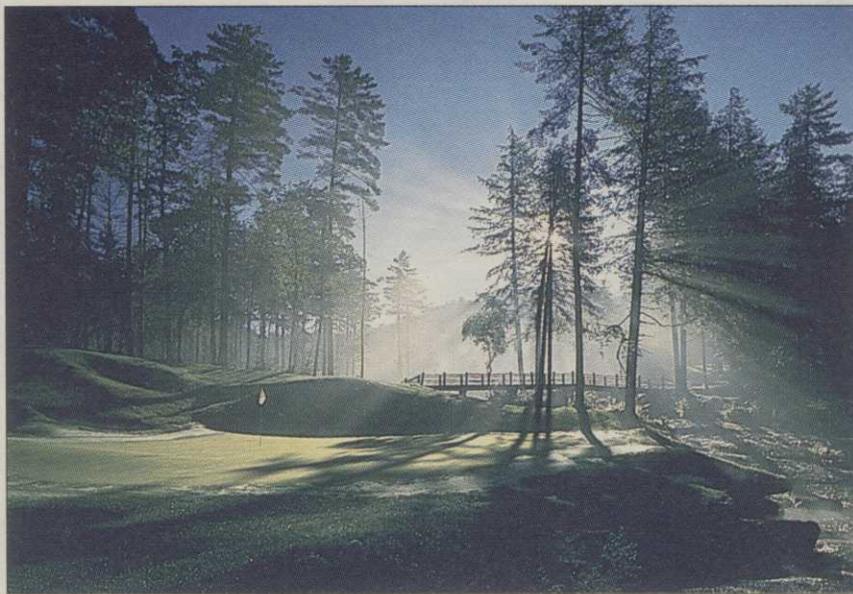
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HOW TO SPEAK A THOUSAND WORDS

The Wade Hampton Club in Cashiers, N.C., never looked so good, thanks to photographer Mike Klemme. Klemme and colleague Tony Roberts talk about how to prepare a course for photography, and how to market a course with pictures. See pages 22 & 47.

Turf grads face crowded job market

By PETER BLAIS

The job market for turf school graduates shows few signs of improving while the number of wannabe superintendents continues to grow, according to educators and practitioners.

"It's been noticeably slower the past few years," said University of Massachusetts Professor Richard Cooper.

"During most of the 1980s, we'd graduate 40 to 50 students every year and all would find jobs as assistant superintendents. Now about half find assistant jobs, a quarter are able to find work on golf course maintenance crews and the rest end up doing something else."

The situation is a little better in the South. Lake City (Fla.) College Profes-

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Wadsworth Golf: The training ground for aspiring architects

By MARK LESLIE

When project director Glen Doutrich told Craig Schreiner to oversee finished grading of the irrigation heads for an upcoming walk-through of the Fazio Course at Barton Creek in Austin, Texas, the young apprentice said, "Yes, the owners will probably get real touchy about that." Doutrich responded: "I'm not worried about the owners. We far exceed their expectations. The walk-through you've got to watch for is Mr. Wadsworth's."

The Wadsworth Way, Schreiner calls it. It refers to Brent Wadsworth. It defines how he runs his Wadsworth Golf Construction Co. And it may explain why that nationwide firm has become the

Continued on page 38

Openings maintain torrid pace

A third straight year of 350-plus courses

By HAL PHILLIPS

A whopping 358 golf courses opened for play during 1993, as public-access development continued to dominate a market that — despite a bevy of cool-headed forecasts — has sustained its considerable momentum.

According to a National Golf Foundation (NGF) report, a full 81 percent of those courses unveiled last year were either daily fee or municipal. Of the 14,639 courses now operating in the United States, 66.6 percent are public-access.

According to Rick Norton, vice president of the NGF, private course development is more adversely affected by recession, whereas public golf is more often aimed at a particular market segment.

"I think golf is being viewed more and more as a business," said Norton. "It was a very good year in 1993, and I think it shows courses are being built for the market. They're more

Continued on page 3

Study: Labor trouble on horizon for private clubs

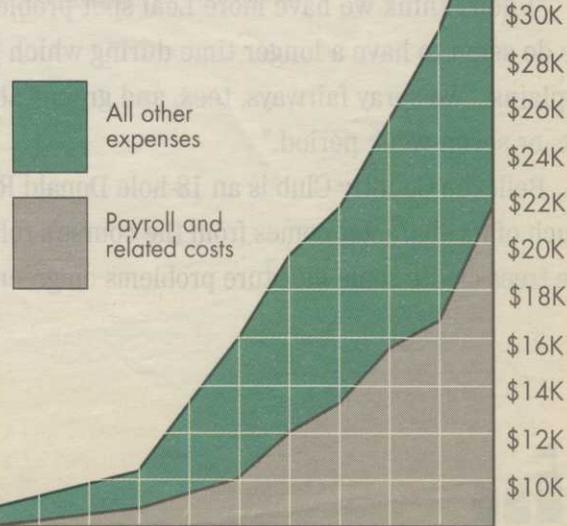
By PETER BLAIS

Increasing labor costs, declining membership and less money available for capital improvements are among the disturbing findings in an annual report on the health of private country clubs.

From 1972-82, private golf course maintenance personnel were paid less than the average income paid workers in that general labor pool. Since then, however, course employees have been and continue to be paid more than the pool average, according to Kevin Reilly, national tax director for the international accounting firm Pannell Kerr

Continued on page 48

Average Annual Cost Per Hole



Source: Pannell Kerr Forster



"WITH DACONIL 2787[®], WE'VE HAD NO PROBLEM WITH LEAF SPOT."



*Dave Southard,
Superintendent,
Bellevue
Country Club
Syracuse, New York*

Spring comes late in central New York, and Dave Southard, course superintendent at the Bellevue Country Club in Syracuse, knows he can count on plenty of moisture and cool temperatures. "That means Leaf spot," Dave says. "Then we go right from Leaf spot to Dollar spot to Brown patch to Snow mold."

That's why, when the last snow melts in mid-April, Dave begins a season-long program of turf protection that centers on Daconil 2787[®] Flowable Fungicide from ISK Biotech Corporation.

Fairways, tees and greens

"I don't think we have more Leaf spot problems than other courses, but we do seem to have a longer time during which you have to control it," Dave explains. "We spray fairways, tees, and greens about every two weeks for a six- or seven-week period."

Bellevue Country Club is an 18-hole Donald Ross course, built in 1916. Much of its character comes from the course's rolling, woody terrain. In fact, the trees create some moisture problems on greens, tees and fairways.

"We're trying to thin out the trees a little, but we're really overplanted," Dave admits. "Many parts of the course are slow to dry out in the morning. Early or late in the year, when the sun is low in the sky, there are parts of the course that really don't get any sun at all. The trees cut down on air circulation, too. And that increases disease pressure."

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You might say Daconil 2787 is the cornerstone of Dave's turf management program. While he sometimes uses other products, he always comes back to Daconil 2787 for dependable disease control, and to avoid resistance. As Dave puts it: "For 23 years, it's been one of the basic products I use. It's very cost-effective, and quite dependable."

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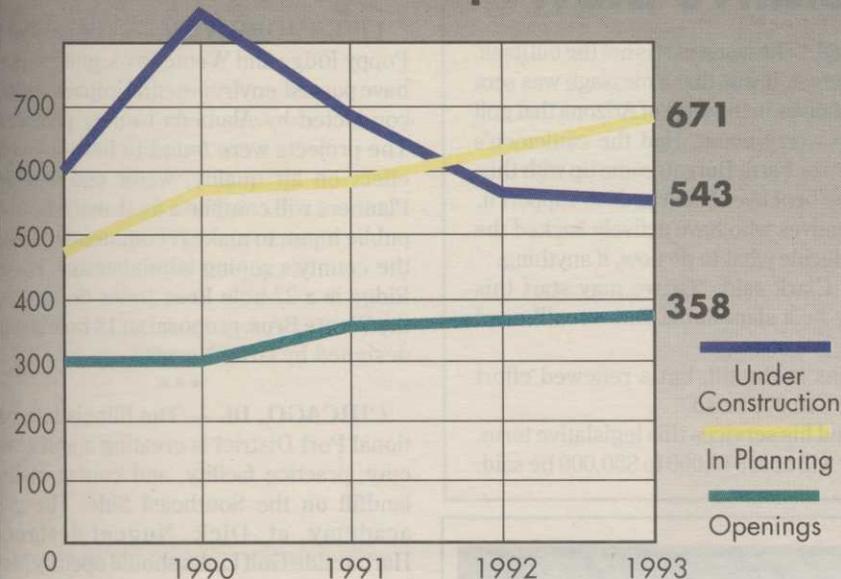


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Golf Course Development 1990-93



Source: National Golf Foundation

1993's Top Ten States in Course Openings

Florida	37
Illinois	26
Michigan	22
Ohio	17
Alabama	16
Texas	16
California	14
New York	14
Wisconsin	13
North Carolina	12
Virginia	12
Total	199
U.S. Total	358

NGF reports 358 openings last year; daily-fees continue to dominate

Continued from page 1

economically driven. Their capitalization is more in line with what they can expect to produce revenue-wise."

For two years now, the Jupiter, Fla.-based NGF has made a concerted effort to downplay its now-memorable rallying cry: Meeting demand with "one course opening per day, through the year 2000." Similarly, pundits and experts alike have agreed the market will settle down during this decade, with approximately 250 courses coming on line each year.

When figures for 1991 indicated that 351 courses were christened, everyone cried *Peak Year!* — sure that 1992 would restore sobriety. However, 354 courses opened in 1992, followed by this year's 358.

What gives?

"If we're talking about the same thing a year from now, we might have to say the NGF was right — this is demand-driven," said Don Rhodes, vice president of golf finance for Textron Financial Corp. "The golf industry has always financed new construction from non-traditional sources: membership sales, assessments, wealthy individuals who want to escape the North-east in the winter.

"To the extent that this new construction is coming from equity sources — as opposed to the 1980s when you just got as big a loan as you could — the industry is healthy."

The number of courses under construction continued to rise, as well. Of those 671 projects in the works, two thirds are expected to open during 1994.

"Apparently, these courses are being financed," said NGF Vice President Bill Burbaum. "That's 671 investments. The economy doesn't seem to have had an adverse effect on that."

The only sobering figures indicate a continued decline of projects in planning: 543 at the close of 1993, compared to 580 in 1992. However, even that downward trend may be misleading.

"The real reason the 'in planning' numbers are declining has to do with our own standards," said Catherine Suddarth, research associate at the NGF. "We're being a little more discriminating as to what goes into our data base. We're trying to determine whether there is some backbone to the project — meaning we try to find out whether the developer is already into permitting, looking for an architect or looking for funding.

"If someone just walks into a planning board meeting saying he wants to build a

golf course, we don't include that any more."

The NGF report reveals other trends and tidbits of development knowledge:

- Real-estate-based projects made a slight recovery in 1993. Though not up to pre-1990 levels, the percentage of real-estate openings rose from 27 percent of all openings in 1992 to 34 percent in 1993. The figure for 1991 was 33 percent.

- A moment of silence, please: 29 golf facilities ceased operation in 1993.

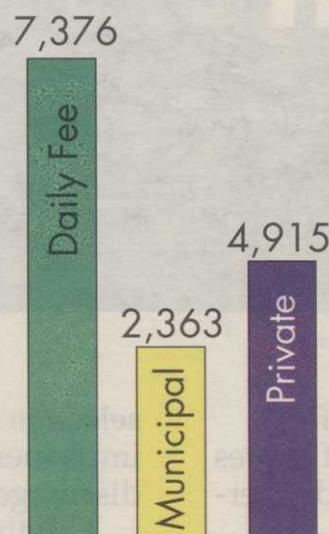
- All told, the eight South Central states showed uncharacteristic vigor: 59 courses opened, 90 percent of which opened to the public. "In the Sun Belt over the last year," Rhodes added, "the housing market has really turned around. In Atlanta, Dallas and Phoenix, new developments are springing up and some have golf courses attached to them. They were dead in the water three years ago."

- The North Central region led the public-access parade, opening 75 last year.

- Nearly 69 percent of the 358 were located at new facilities. Of these 246 new courses, 88 opened as nine-hole facilities, but 32 of the 88 had plans to ultimately go 18.

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Ariz. turfgrass research takes a legislative blow

By MARK LESLIE

PHOENIX, Ariz. — Arizona's green industry was "blind-sided" by two powerful legislators and saw the proposed assessment on golf rounds die in a state Legislature committee here. State Rep. Aldridge, R-PreScott, held the bill in committee until time ran out.

"We thought it was going to be the floor for a vote. It was a snafu that blind-sided us," said Mark Clark, president of Cactus & Pine Golf Course Superintendents Association. Similar to assessments that have been successful in the citrus and farming industries, the bill would have created a Commodities Group to fund turf research and public golf course development.

University of Arizona's Karsten Turfgrass Research Center would have been a major recipient. And Clark said, "That leaves our high-tech research facility hanging without any cash."

"It was an eye-opener. The scariest part was that the legislators

treated us very poorly," he said. "The worst part is not the bill itself. It's not the work that went into it. It was that a message was sent very clearly by our representatives in the state of Arizona that golf is not important enough to worry about. Had the cattlemen's association or cotton growers or Farm Bureau come up with this, they [legislators] would have bent over backwards to support it.

Green industry representatives who have actively backed the legislation were to meet to decide what to do now, if anything.

"It may die right here," Clark said. "Or we may start this again next year and it may be a slam-dunk. But we will need money for a lobbyist."

Clark said \$5,000 remains in the till, but a renewed effort next year will cost another \$40,000 or so.

A leading lobbyist donated his services this legislative term. To hire a lobbyist next year will cost \$40,000 to \$50,000 he said.

NEWS IN BRIEF

LIVERMORE, Calif. — The proposed Poppy Ridge and Wente Bros. golf courses have passed environmental impact studies conducted by Alameda County planners. The projects were found to have minimal effect on air quality, water and wildlife. Planners will compile a final analysis, with public input, to make recommendations to the county's zoning administrator. Poppy Ridge is a 27-hole Rees Jones design and the Wente Bros. proposal an 18-hole layout designed by Greg Norman.

CHICAGO, Ill. — The Illinois International Port District is creating a golf academy, practice facility, and course atop a landfill on the Southeast Side. The golf academy at Dick Nugent-designed Harborside Golf Links should open by May and the 27-hole golf course by spring 1995.

SCITUATE, Mass. — Architect Michael Hurdzan told the golf course study committee a course can be accommodated on a city-owned 120-acre site. Hurdzan offered three options — a full-size 18-hole course, an executive course with driving range or a nine-hole layout. The golf course would cost \$3 million to \$5 million. The proposal must receive a two-thirds approval at a May town meeting before plans can proceed.

MONROE TOWNSHIP, N.J. — The completion of a golf course here by December 1995 is one of many concessions made by Freehold-based U.S. Homes in order to receive Planning Board approval of changes to the original site plan. The former property owner, Union Valley Corp., aborted course construction after four holes. Further course construction could begin by early summer.

LA CROSSE, Wis. — A Common Council committee unanimously endorsed the Alden Corp. of Denver to operate the city golf course after the current lease on La Crosse Country Club expires in November. Alden group won the contract over five other companies. Alden's offer included \$895,000 in rent over five years, lower green fees for La Crosse residents, and continued maintenance at current levels.



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Montana course may be first layout on Superfund cleanup site

By PETER BLAIS

ANACONDA, Mont. — Construction of what is believed to be the first golf course ever built on a Superfund site could begin soon.

Nicklaus Design has routed a 21-hole layout (three practice holes) and a driving range through an abandoned copper smelting facility 30 miles west of Butte.

ARCO owns the 275-acre property, which it will turn over to Deer Lodge County this spring. ARCO will develop the \$5 million to \$10 million facility. The company and Environmental Protection Agency have agreed to indemnify the county against any future lawsuits that could arise over groundwater contamination or other pollution.

The county will build the clubhouse and operate the golf course, an attractive amenity in an area evolving from a mining-based to a tourism-oriented economy.

"It's a unique partnership made possible by the cooperation of the community and EPA's willingness to work with us," said Sandy Stash, ARCO's Montana Superfund manager.

Founded a century ago, Anaconda was one of the country's first planned communities. Copper mined in Butte was transported by rail to Anaconda. Plentiful water and favorable wind patterns to clear out refining-generated smoke made it the perfect site for the smelter. ARCO purchased the smelter in 1976, but had to close it in 1981.

The site is littered with large slag deposits containing arsenic, copper and zinc. Arsenic has the potential to leach into ground water, Stash explained. Copper and zinc could run off into nearby Warm Springs Creek. While not particularly harmful to humans, copper and zinc can be deadly to the Rocky Mountain trout that inhabit the stream.

A clay cap over hot spots containing large arsenic deposits was needed to eliminate leaching, according to Nicklaus architect Bruce Borland. Working with ARCO engineers, Nicklaus routed the course over the hottest spots, mounding additional soil over certain areas to create extra groundwater protection plus interesting design contours in the largely flat landscape.

An intricate drainage system channels any copper- and zinc-containing runoff into a holding lagoon far from the trout-laden stream. Lime and other amendments have been added to soils in the roughs.

"We want to remedy any potential problems now so that the superintendent won't have to worry and the owners end up with something that won't be a maintenance headache," Borland said.

On the plus side, the abandoned smelter afforded Nicklaus a creative opportunity.

"The tee shot on the 3rd hole, for instance, plays straight toward the foothills and the old smelter ruins," Borland said. "The approach runs parallel to the foundation walls. Passing from the 3rd green to the 4th tee you climb about 20 feet through

and to the top of the foundation."

The course winds through 25-to-30-foot-high black slag piles that are particularly striking on the 6th, 7th and 9th holes. Signage will describe historically significant sites.

"I was a little apprehensive about working on a Superfund site," Borland said. "But it's worked well. It's an interesting challenge with a lot of twists."

The course was five years in permitting, Stash said. All local, state and federal permits are in place. The only remaining roadblock in-

volves water rights. But since the project rests on what Stash describes as a prolific aquifer, she expects that to be resolved soon.

"We expect to go out to bid in mid-March, receive our permits by late March, and start construction in mid-to-late April," she said.

The course should be playable by early 1996. It will draw on urban areas within a 60-mile radius — Butte, Helena and Dillon — and tourist migration between Yellowstone and Glacier national parks. Greens fees will be \$20 to \$30.

Are any of the other 1,289 proposed Superfund locations potential golf course sites?

"If, and it's a very big IF, you determine the site will help with the clean up in the strictest sense," said EPA public liaison officer Michael Scott.

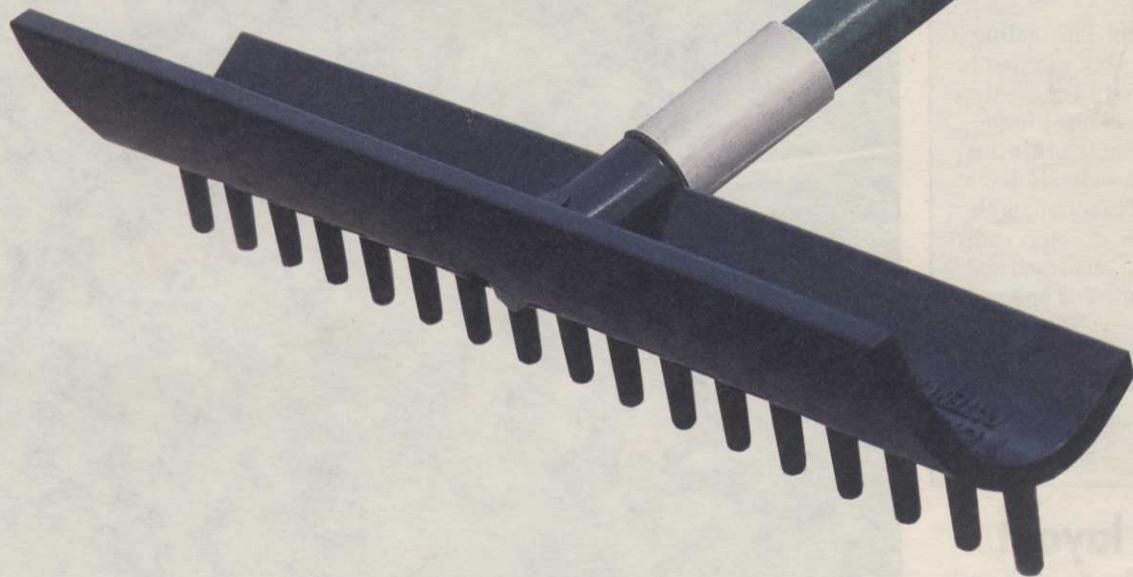
EPA divides Superfund sites into two categories — those requiring immediate emergency removal of toxic materials and those needing to be returned to something approaching their natural state.

Those needing emergency re-

moval, obviously, would not be appropriate golf course sites, at least in the immediate future, Scott explained. Those needing longer-term restoration work could be possibilities, he added.

Complicating development, however, is a federal law stating that any person or institution that owns a Superfund site can be held liable for emergency removal or clean-up costs if a problem arises. At Anaconda, for instance, if arsenic was detected in the ground water 20 years from now, the course operator *could* be held liable. That's why ARCO agreed to indemnify the county against future damages.

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Ark. course to close while greens rebuilt

BELLA VISTA, Ark. — Because of a change in plans for the rebuilding of its greens, Kingswood Golf Course here will be closed for most of 1994. Originally set to reopen on July 1, the course will stay closed until Oct. 1, and possibly later, according to Mike Shea, director of recreation for the Bella Vista Village Property Owners Association.

The course has been closed since last Nov. 15.

"We considered sodding the greens with bentgrass sod to speed up the process of reopening the course for play," Shea told the *Northwest Arkansas Times*. "While sodding would be more expensive, everyone had agreed that the reopening of the course by July would be worth every penny."

Following lab testing, however, this approach was rejected because the fine sand base used in sodding would not work in this area. Golf officials have indicated that serious problems could develop with the application of heat and stress on the sod and soil mix.

Therefore, Shea said the greens will need to be sown by seed, which will require more time to develop.

Illinois layout expands to four-season facility

SHEFFIELD, Ill. — Despite weather delays, Hidden Lake Golf Club and Resort should be surrounded by a complete year-round resort by 1995. The four-phase expansion project is the brainchild of owner LeRoy Wirth.

Phase I, which started last fall, is the construction of five new golf holes and a new dam to raise the existing strip mine lake eight feet, according to Wirth. The dam will expand the three-acre lake to eight acres and put it in play on three of the five new golf holes.

Concurrently, there is an ongoing remodeling of existing buildings, including the full-service commissary-pro shop and a 30-by-35-foot meeting area with panoramic views of the golf course.

"Our plan is to get the first five new holes operable by September of this year," Wirth told the *Star Courier*. The original nine-hole golf course will remain in play through the 1994 season.

When the 18-hole layout is complete, it will play to a 35-35-70 par.

Plans for massive golf course community project unveiled in Arizona

PHOENIX, Ariz. — Details of development plans for the first phase of Desert Ridge — a huge, multi-use community in the city's northeastern Valley — include two 18-hole golf courses and approximately 2,000 residences on 1,346 acres, according to Donald L. Viehmann of Northeast Phoenix Partners, the community's master developer.

Northeast Phoenix Partners is a joint venture of The Viehmann, Martin Companies of Phoenix, and Thomas J. Klutznick Company of Chicago.

According to J. Michael Martin of the Viehmann, Martin Companies, the golf resort will be "a high-quality destination-type resort that will help set the tone and quality of the overall Desert Ridge development."

The golf and residential components constitute only the initial phase of the proposed development.

Construction of roads, storm drainage, utility connections and other infrastructure is tentatively scheduled to begin next year, Viehmann said.

Zoned for an eventual 25,000 residences, Desert Ridge is estimated to house 50,000 people when the community is completed in 2020.

Northeast Phoenix initially acquired a grazing-rights lease for the site 12 years ago and obtained zoning for the entire tract on behalf of the Arizona State Land Department, the actual owner of the site.

On July 7, 1993, Northeast Phoenix acquired the rights for the acreage that constitutes the first phase of the development,

acquiring lease rights for 99 years on 570 acres of land designated for commercial use and purchasing 780 acres of land designated for residential use.

For the leased land, Northeast Phoenix will pay rent that will net the state approximately \$500 million over the life of the lease. The venture paid \$9.36 million for the residential land.

Access to Desert Ridge from throughout the Phoenix metropolitan area will be enhanced with the opening in 1997 of the four-lane interim Pima Freeway.



WHAT THIS MACHINERY DOES TO YOUR GRASS, PRIMO



Palmer to design course at former missile plant site

RANCHO CUCAMONGO, Calif. — In terms of golf course design, General Dynamics landed a giant.

Arnold Palmer announced his course design company is drawing up plans for a golf course to be bisected by Sixth Street and bordered by Milliken Avenue. "The area is perfect for it," said Palmer, citing the area's sizable population combined with a lack of public golf courses.

The announcement comes three months after General Dynamics unveiled plans to build a public golf course on the site of its former missile-production facility. The course will take up about a quarter of the 375-acre site.

The defense contractor is asking the city to rezone the remainder of the property for a mixture of commercial, office and residential uses. Given rezoning, the company intends to sell this part of the property, according to Dick Hadinger, director of the property management division.

In addition to an 18-hole course, the complex will feature a clubhouse and practice facility. Estimated construction costs will total \$10 to \$15 million.

Developer Stephen Eimer, working as a consultant to General Dynamics on the project, anticipates the project will receive City Council approval this summer, in time for a late 1995 opening.

Developer angry, opponents pleased over Calif. settlement

GOLETA, Calif. — A settlement paving the way for a new golf course across from Do Pueblos High School has infuriated developers and pleased environmentalists here.

Environmentalists agreed to drop their Superior Court lawsuit — which sought to overturn the Santa Barbara County Board of Supervisors' approval of the project — when Dos Pueblos Golf Course Partners agreed to build a

900-foot-by-86-foot creek with wetland corridors for wildlife. The developers also agreed to build a 50-foot, densely vegetated buffer zone near Glen Annie Creek.

"I will never, ever plan to build anything here again," John O'Shaughnessey, managing partner of Dos Pueblos, told the *Santa Barbara News Press*. "I wanted to build a golf course for the middle class, with greens fees of \$25. Now the price will have to be \$35."

O'Shaughnessey said the lawsuit cost \$938,000 in legal fees and design changes will cost \$104,000. Environmentalists objected most to grading on the project that would bury 1,500 feet of Devereaux Creek with dirt.

With construction set to begin in July, the 18-hole public golf course and clubhouse will be built on 156 acres at the northwest corner of Glen Annie and Cathedral Oaks roads.

Financial deal assures Minn. muni's future

NORTH MANKATO, Minn. — North Mankato Golf Association has reached a tentative agreement with the City Council that guarantees the association's long-term financial support for North Links Golf Course and opens up the possibility of adding 18 holes, creating a 36-hole municipal facility.

Under the agreement, the golf association will pay \$40,000 a year to the city for five years. Half of the annual payment will go toward the purchase of additional land, the rest toward the existing course's debt and improvements.

The debt was caused by an estimated \$750,000 overrun in the course's construction, which created a \$430,000 shortfall. The course lost \$175,000 its first year.

One tenet of the agreement is the city will keep an option on 200 acres of additional land.

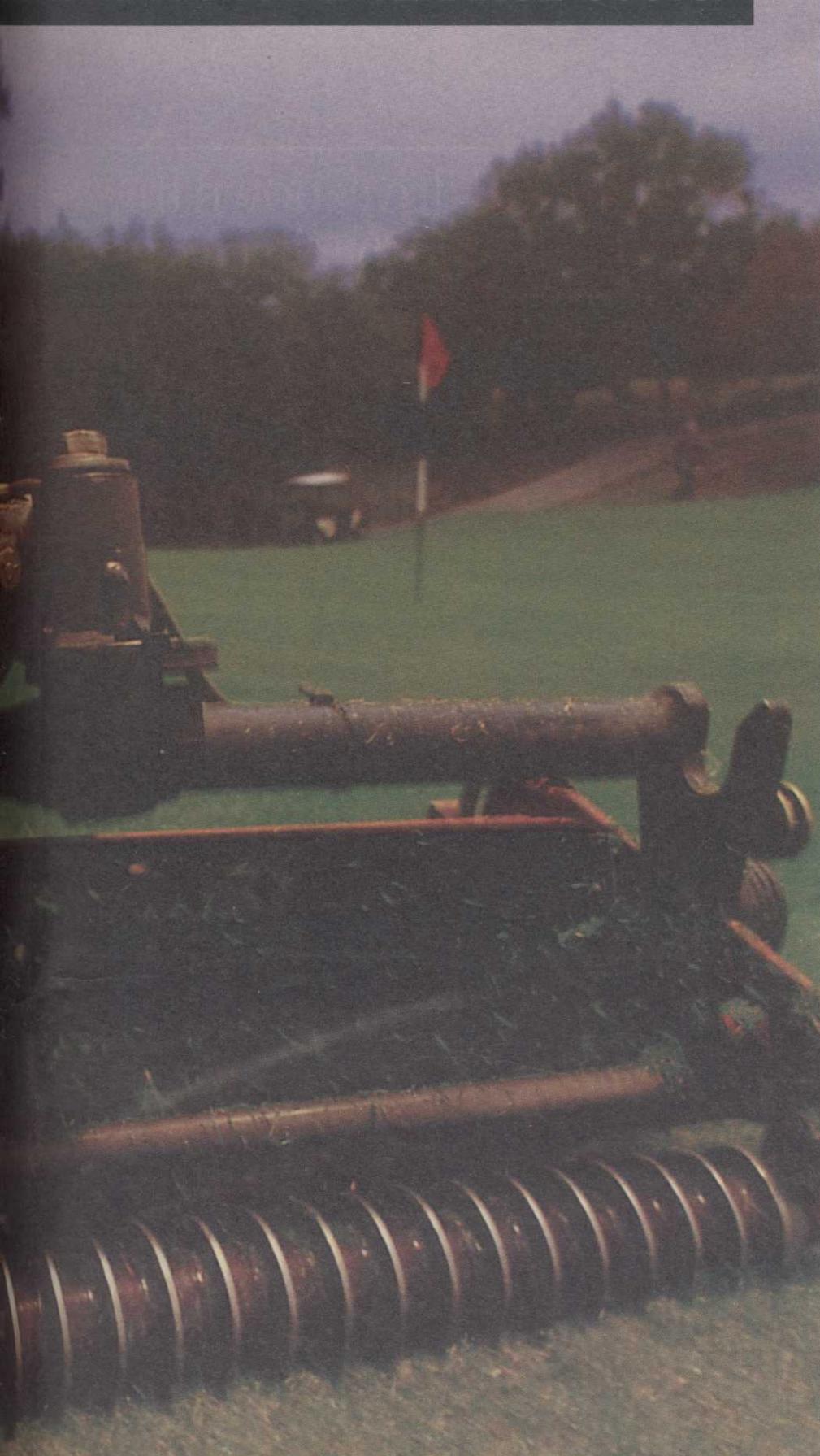
Ill. course could make comeback

TUSCOLA, Ill. — Mayor Dan Kleiss has announced the proposed Tuscola golf course may be back on track, depending on the status of the city's mall project.

Although the city had given up on the golf course project about two years ago, the Tuscola Area Improvement Association, a local development association, has taken on the task of trying to revive interest in the course.

"Things are still very preliminary," said Kleiss. "A lot of the developer's interest is tied to the mall's announcement."

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CIRCLE #105

Lawsuit targets Michigan golf course project

SAGINAW TOWNSHIP, Mich. — The proposed Sawmill Golf Club, an 18-hole course and subdivision, is up against a lawsuit claiming township officials illegally negotiated the sale of 58 acres for the 283-acre project.

The Jan. 12 filing in Saginaw County Circuit Court demands a halt to the \$5 million project, saying the township violated the state Open Meetings Act by not informing the public of its plans to sell land to project developers. The project's developer, Masters Development Corp., is not named in the lawsuit.

Environmentalists seem to be most critical

of the golf course project. The Lone Tree Council, a group of environmentalists who formed in the 1970s to oppose the Midland Nuclear Plant, has unanimously voted to oppose the project.

Council Chairman Terry Miller says the group wants to stop further loss of the state's wetlands. Miller is one of eight plaintiffs in the lawsuit.

Masters indicated its plans call for preserving the wetlands as much as possible.

Before Masters can develop the wetlands, it still must seek a permit from the Land and Water Management Division of the Department of Natural Resources.

Course could become part of Va. park

RICHMOND, Va. — Pending City Council approval, Richmond officials plan to transform Bryan Park into the city's first public golf course. The plan calls for an 18-hole course with a clubhouse, picnic area and playground.

There are also plans to build an Arthur Ashe tennis academy and 26 courts.

The city will pay for improvements to the lakes and roads. Then a developer will lease the land, build the course and run it. The project should run \$3 to \$5 million.

The course would likely be dubbed the "Azalea Gardens Golf Club," a name derived from Bryan Park's revered azalea gardens.

Richmond could use another golf course. In the immediate area, there are 513 golf holes and 7,130 people per hole, according to National Golf Foundation spokeswoman Judy Thompson. That is far enough below the national average to rank Richmond 259th out of 321 metropolitan areas.

The proposed club would be the 11th public course in the metropolitan area.

Indianapolis pair break ground on 27-hole affair

WESTFIELD, Ind. — An exclusive golf course and residential area is being planned not far from the Boon-Hamilton County line.

The golf course and development, expected to break ground in October, are the dream of Dick Perk and Richard Pollak of Indianapolis. Pollak is an architect.

Plans call for the 18-hole course and 9-hole par-3 to be the center of a 256-lot, 326-acre development. The course and development will be known as Royale Links.

Anyone who buys a lot gets free membership in the course and a riding cart. Total cost of the project is expected to reach \$50 million.

City hopes to buy Ohio course

NORTH OLMSTED, Ohio — A proposal to buy the Springvale Country Club has been presented to the city council, but the city has not made a final decision on the purchase.

Plans are to borrow \$4.1 million to buy the country club and use it as a golf course and recreational community center.

For the first full year of operation, officials estimate the city should expect \$1.2 million in revenue and \$850,000 in expenses. According to Councilwoman Duane Limpert, financial projections show the purchase could be a "cash cow."

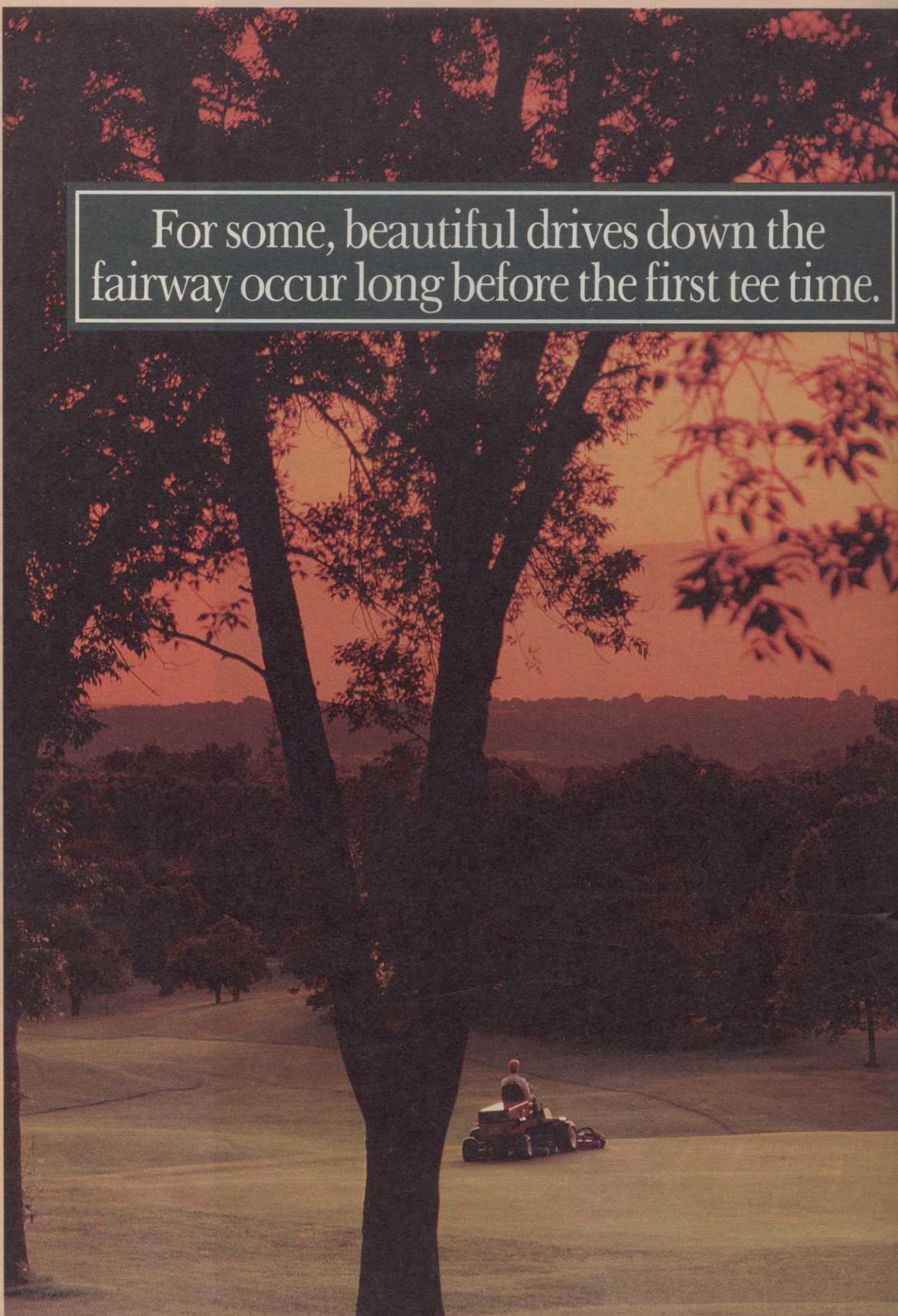
Between \$50,000 to \$100,000 in course improvements are needed.

Permits sought for Minn. track

BRAINERD, Minn. — Crow Wing County planners postponed action on a conditional use permit for The Preserve golf course while it determined whether an Environmental Assessment Worksheet (EAW) is needed.

An EAW is a review of a project's environmental impact.

This issue was brought about because neighbors of the proposed golf course collected enough signatures to petition the Environmental Quality Board.



For some, beautiful drives down the fairway occur long before the first tee time.

Okla. layout to close temporarily for update

EDMOND, Okla. — Contrary to some rumors, this town's oldest public golf course, Kickingbird Golf Club, will not be closing down permanently.

"Yes, we may have to shut down temporarily for 10 months to rebuild the greens, but again, nothing is cut and dried at this point," said head pro Mike Heinen.

A tentative closing is scheduled for July of 1995 or 1996.

Heinen, who took over as head pro last year, would eventually like to replace all 18 substandard greens, elevating them to PGA

specifications.

Kickingbird officials are working on an overall master plan with the architectural firm of Slack, Hayes and Associates. The firm is led by former touring pro Mark Hayes.

These renovation plans still have a ways to go. "First we have to raise the money, then run it through the public works authority," said Heinen.

In the meantime, Kickingbird will aerate heavily to temporarily fix the greens on holes 12, 13, 14 and 15.

Golf could be profitable for Utah city, study says

OREM, Utah — If the city is willing to spend up to \$3.5 million, a proposed 18-hole municipal golf course could be profitably operated here, according to E. Peter Elzi Jr., a senior economist for golf consultant THK Associates, Inc.

The city council voted 4-0 to accept the conclusions of the feasibility report and look into following its recommendations.

According to Elzi, the THK study found the city has a potential customer base of 49,000 golfers.

With the existing nine area golf courses reporting only 240,000 rounds played a year, the

supply of courses has not kept up with the demand, the study indicated.

By the third year of operation, with greens fees set between \$9 and \$15, the course could make \$607,000 dollars a year, said Elzi.

This Utah Lake area would be the most feasible location for a golf course according to Elzi. The site is easily accessible from Interstate 15, irrigation water could be supplied from the city waste water treatment plant and the area has easy access to utilities.

THK would not be involved in the design of the municipal golf course, if the city were to build one.

Government to seek penalties on Pa. project

LEHMAN TOWNSHIP, Pa. — In order to decide whether to pursue civil penalties against Huntsville Golf Club, the U.S. Army Corps of Engineers has turned over a wetlands enforcement case to the U.S. attorney's office in Harrisburg.

The private Huntsville club faces fines up to \$25,000 per day for allegedly illegally excavating an irrigation pond on wetlands last August, according to Mark Patterson, a Corps of Engineers biologist.

Even though club officials were fully aware of the permitting process required, said Patterson, they never applied for the state and federal permits needed for the wetlands construction. The club had acquired other permits, but not for the 4.45 acres in question, he said.

The Corps and the state Department of Environmental Resources are negotiating with the club regarding how many acres of wetlands will need to be restored or created to replace those that were lost.

"We're willing to do what has to be done," said George Evans of Killiam Associates, the club's engineer.

Wash. layout set to open May 1

BELLINGHAM, Wash. — With a blessing from the birthplace of golf, the Shuksan Golf Club is scheduled to open May 1.

The 18-hole, par-72 layout features elevation changes of 100 or more feet on some holes; contoured mounding covered with fine, 6-inch rough; and a view of Mt. Baker from the clubhouse.

Rick Dvorak, the general managing partner of Shuksan, is convinced of the course's success due to the "blessing" he received from a memento request to St. Andrews' Old Course in Scotland.

He received two coins, an Old Course yardage book and a good luck letter signed by the secretary/general manager of St. Andrews to commemorate the opening of Shuksan.

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CIRCLE #106

NGF report reveals a host of hidden trends worth watching

There is always room between the lines, even when the lines are crammed with numerical analysis. Case in point: The "Golf Facilities in the U.S." report just released by the National Golf Foundation (see page 1).

The report doesn't spell it out, but it doesn't take a genius to see that golf course development continues to defy nationwide lending trends. When the bulk of last year's new courses were conceived, in 1991-92, *recessionitis* gripped American financial institutions, and few — especially golf course projects — could secure funding.

But somehow these projects *were* financed and built, which proves a couple things: That funding was probably secured from local sources, and golf's perceived "profit potential" remained high through the worst of economic times.

Despite the recession, despite the difficulty in securing financing, despite overbuilding in certain metropolitan areas, and despite the supposed prevailing wisdom that said golf can't possibly maintain its current course-a-day pace — loads of folks believed they could make money by building daily-fee golf courses.

They still believe it. There are 671 courses now under construction, about half of which will come on line during 1994.

That brings us to another trend: While golf courses are being opened at record pace, an overwhelming portion of them — 80 percent — are public.

Public-access golf development — daily-fee and municipal — is dwarfing private course construction. Why? Because the demand for public golf is clearly there and money to finance new private courses isn't. Apparently, lenders believe there are enough private courses — and they're probably right.

A full two-thirds of the nation's 14,000-odd golf courses are now public-access. And get this: 80 percent of the 1,360 that opened between 1990 and '93 are either daily-fee or municipal.

I believe these two figures will meet during the next



Hal Phillips,
editor

Continued on page 31

Okay, the game's over... Close down the courses

Editor's note: I am herewith adding one more acronym to the industry parlance. *AHA!* now stands for American hyper-activist. That is the type of person who will stop at no deviant behavior (like spiking trees or pouring chlorine on a golf course) to stop another person from imposing his will on the environment.

"To a pure ecologist, there's no such thing as a pest. Instead, they're competing organisms," said Prof. Karl Danneberger. That pure ecologist could easily fit the mold of the *AHA!*

Some people make things happen. Some people ask, "What happened?" In the ongoing battle against certain vocal hyper-activists (*AHA!*), it seems the golf industry too often throws up its hands and collectively sighs: "What happened?"

Thank God for those stalwarts who don't — who stand up, present the facts (not the *AHA!*'s factoids) and stomp down on opinion with science. But let's, for a moment, play **What If**.

The proposition: What if Golf Nation collectively succumbed to all the *AHA!* demands and declared: "Okay. The game's over. The gig's up. We're tossing in the towel."

"No more fighting in board meetings and the courts to win approval for golf course developments. No more clashes over fertilizer and pesticide use. Go ahead, folks. Outlaw fertilizers, fungicides, insecticides, rodenticides. Close down golf courses the country over."

All you *AHA!*s out there, here's a sampling of what would happen if you had your way:

- **Get out the help wanted ads and dig deeper into that bottomless welfare till:** Golf course operations pay \$6.1 billion annually to more than 380,000 full- and part-time employees.

- **Get ready to ante up more of your paycheck; you won't miss it:** Golf courses five years ago paid \$1.8 billion in federal taxes, \$530 million in state taxes and \$350 million in local taxes.

And Clinton economic adviser Laura D'Andrea Tyson told congressmen the United States is "an undertaxed nation." There is "no relationship between a nation's tax burden and its rate of economic growth," she said (*Reason*, Aug.-Sept 1993).

- **Discover some new technologies and open some busi-**



Mark Leslie,
managing editor

Continued on page 32

Letters

EPA CHIEF BROWNER REFUTED BY RISE

To the editor:

The guest commentary by U.S. EPA administrator Carol Browner in the January issue of *Golf Course News* contains a surprising amount of misinformation regarding golf course use of pest control.

We share the Administrator's interest in a clean environment, as well as in the safety and health of all our citizens, including golfers. And, we support her recommendations regarding Integrated

Pest Management (IPM) — practices to which members of RISE ascribe.

Unfortunately, however, many of Ms. Browner's comments skirt the facts, deal heavily in innuendo, and serve only to raise unwarranted fears. Presumably, her commentary is written to advance a questionable agenda which stresses reduced pesticide use solely for reduced use's sake, rather than a program which emphasizes responsible use and reduced risk. One would like to believe that these comments were

BROWNER POINTS? ...HARDLY

To the editor:

Your newest guest commentator, Carol Browner, shows great ignorance about the golf course industry in her January piece. She should get her facts and her thinking straight! "Thousands of geese" dropping dead could not possibly fit onto one green! It is a typical exaggeration for the sake of scaring her audience.

Ms. Browner's admonition that "pesticide run-off can severely threaten the drinking water supply," is old hat to golf course superintendents. Obviously, in her ignorance she has never heard of the Cape Cod Study or Dr.

Watschke's work at Penn State.

Golf course superintendents practiced IPM long before the word was invented. We chuckle when the GCSAA and the USGA come on the bandwagon and obviously convince the EPA what a good bunch we are. Now that you have a president who plays golf and we a prime minister who does likewise, we no longer have anything to worry about. Except that both gentlemen of the same stripe tend to make appointments based on quotas rather than merit.

Ah well, we'll survive!

Gordon Witteveen
Golf Course Superintendent
Board of Trade Golf Club
Toronto, Ontario, Canada

More letters on page 30

submitted, under Ms. Browner's name, by a writer totally unacquainted with the extensive amount of EPA and industry-required pesticide testing and the proper practices followed by golf course management.

- Many may not know — but Ms. Browner certainly should — that all pesticide products used in the United States must have EPA registration and bear an EPA-approved label. To gain EPA registration, each product must undergo eight to 10 years of stringent scrutiny involving as many as 120 separate laboratory and field tests. On average, only one in 20,000 chemicals makes it through this intensive testing. Many of these tests — especially those involving laboratory animals — are specific for the human health and environmental concerns to which Ms. Browner refers. The EPA-approved label sets out the proper, legal instructions for pesticide use which golf course applicators, and other users, follow.

- Ms. Browner's statement that "heavy pesticide use doesn't just affect golfers..." deals in innuendo,

not fact. There is no evidence that pesticide use on golf courses is heavier than that needed for specific pest control, as recommended on the EPA label. Nor is there any evidence that golfers — or their children "who walk the course" — are affected by golf course pest control.

- Ms. Browner's comment that "... pesticide run-off [from golf course] can severely threaten the drinking water supply of the nearby community," is not backed by EPA's own studies. In its extensive survey of the nation's rural and urban drinking water, EPA reported that "concentrations of pesticides... detected were usually well below levels of health concern," and that "greater than 99 percent of the wells tested are free of any pesticide traces exceeding safe drinking water standards." There is no evidence that pesticide run-off from golf courses threatens community water supplies.

The Administrator's concern for a healthful, safe environment is proper and appreciated. That is a goal to which the pesticide industry subscribes, as well, and one to which we are committed.

Allen James
Executive Director
RISE (Responsible Industry
for a Sound Environment)

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There's more to ponder than pesticide use

By PETER BLAIS

SUPERINTENDENTS=PESTICIDES=CANCER

It's an equation the golf industry claimed (and hoped) never balanced. The latest GCSAA study showing the increased likelihood of superintendents dying of cancer has caused some to re-examine that belief.

Certainly, opponents of the golf industry will jump all over any potential connection between pesticides and cancer. But before you run off to join their holy crusade against golf and the chemical companies, let's take a look at those plying the course management trade.

Superintendents are a hard-working lot. Their make-up and the nature of the job put them on a collision course with a number of factors that have been linked to increased cancer risk.

• **Stress.** Anxiety is a constant companion of anyone whose job is dependent on the whims of a doctor/lawyer/businessman who thinks he is an expert on growing grass because of his two-week golfing vacation in Scotland back in 1987. Throw in a million-dollar maintenance budget, 70-hour work week, responsibility for 20 employees and increasing contact with EPA, DEP, OSHA and the like, and the stress rarely ends. *Stress* has been linked to cancer.

• **Smoking.** I don't have the scientific data to support it, but the cloud of smoke I walked through on my way to educational sessions and exhibits at the recent GCSAA Conference in Dallas leads me to suspect that superintendents smoke more than the general population. Maybe it's the stress that makes you light up. *Smoking* has been linked to cancer.

• **Weight.** On more than one occasion in the GCSAA Conference Exhibition Hall, I noticed two well-fed superintendents finding it difficult to pass by one another between those tightly spaced booths. Being 30 pounds overweight myself, it's hard for me to recommend people shed the extra pounds. What's that old saying? People who live in cellulite houses shouldn't throw calories. Maybe it's the stress. Maybe it's spending too much time in the office satisfying DEP, EPA and OSHA paperwork requirements rather than physically working the course. But whatever, excess *weight* has

Continued on page 31

Recognizing, preserving golf courses as open space

By DAVID MACDONALD

I see golf courses in a different light than most of you. I don't play golf, but I do enjoy hiking, fishing, sledding and cross-country skiing. I value greatly three nearby golf courses that provide undeveloped open space for these and other outdoor activities to our local communities.

Golfers and conservationists are forging new partnerships, including the New York Audubon Society's efforts to preserve natural habitats — through its Golf Course Wildlife Sanctuary Program — and on Kiawah Island in South Carolina, where it recently took over stewardship of the



David MacDonald

David MacDonald lives and works on Mount Desert Island for the Maine Coast Heritage Trust, a state-wide non-profit land trust that has helped protect more than 55,000 acres and 160 islands in Maine.

Ocean Course.

Here on the coast of Maine, there is potential for similar efforts, in order to stem development pressure, buffer a national park and protect traditional recreational uses of golf courses by local residents.

In addition to the three golf courses, our community also happens to be the home of Acadia National Park, which offers some of the most diverse outdoor opportunities in the nation, drawing millions of visitors each year. Even in such a setting, with dozens of mountain trails and miles of shoreline from which to choose, golf courses hold their own as providers of significant open, recreational space.

What makes the courses so appealing as community open space is they usually back right up to the village — you can walk to them. Better yet, around here, the other side of the course often abuts an Acadia National Park boundary. The open space serves

Continued on page 60

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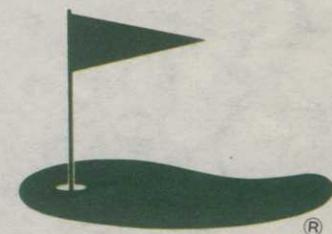
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CIRCLE #108

BRIEFS



NICKLAUS PICKS SORRELL

HILTON HEAD, S.C. — Steve Sorrell of Colleton River Plantation has been selected Superintendent of the Year by GolfTurf, a division of Golden Bear International. GolfTurf President Edward A. Etchells cited Sorrell for doing “an absolutely phenomenal job in completing the grow-in stage and developing the maintenance operations.” Sorrell joined Colleton River in 1993 after serving as superintendent at Grand Cypress Resort and Metro West Country Club in Orlando, Fla.

MINNESOTA CLEANUP IN FRONT

The Minnesota Pollution Control Agency's Leaking Underground Storage Tank Program leads other Midwest states in cleaning up tank leaks, according to figures released by the Environmental Protection Agency (EPA). The EPA reported that in Minnesota, more than 42 percent, or 1,837 of the 4,337 confirmed leaks had been cleaned up by the end of the 1993 fiscal year. That compares with 25 percent of the 50,000 known releases in all the EPA's Midwest states. Those figures do not include tanks with less than 1,100-gallon capacity.

OHIO LANDFILL DELAY

Lack of funding has forced Ohio to postpone its ban on dumping yard wastes in landfills. Expected to go into effect last Dec. 1, the ban has been delayed until as late as July. The Ohio Environmental Protection Agency said staff shortages prevented it from writing rules the state Legislature approved four years ago.

RESEARCH FUNDS RAISED

DENVER — A silent auction at the Rocky Mountain Turf Conference and Trade Show provided \$4,000 toward the Jackie Butler Memorial Endowment Fund. Money earned through the conference will be donated to the Rocky Mountain Turfgrass Research Foundation.



SCIENTIST-AUTHOR SPEAKING IN NAPLES

NAPLES, Fla. — Dr. Michael S. Coffman, author of two books and former professor of forest science at Michigan Technological University, will conduct a six-hour seminar on environmentalism on May 13 at Naples Beach Club. The president of Environmental Perspectives, Inc., in Bangor, Maine, Coffman will explain how to handle environmental extremism on the local level. To register, people should contact David Court, director of education for the Florida Golf Course Superintendents Association, at 407-482-5000.

Water-recycling, chemical-free, tackling difficult issues, Pheasant Run was...

Ahead of Its Time



S T. CHARLES, III. — Whether it was foresight or visionary, long before it was politically expedient — or even recommended — Pheasant Run Resort Golf Course was chemical-free and recycling its own water.

In the early 1960s, McArdle Enterprises President Ed McArdle stood on 160 acres of Illinois prairie 40 minutes west of Chicago and envisioned a resort and convention center where a dairy farm then stood.

When Pete Mirkes Jr. took his first supervisor's position with McArdle, in February 1963, he faced major challenges.

“From Day One, we knew we had a challenge in front of us,” Mirkes said. “The property literally was tree-less, and had no

Continued on page 14

Dr. Danneberger: 'Don't give up on IPM' too soon

By MARK LESLIE

R OCKPORT, Maine — Integrated pest management (IPM) plans are fun to discuss in the off-season, but oftentimes “come July, they're the first thing out the window when the spray tank starts up,” said Prof. Karl Danneberger.

Urging his Maine Turfgrass Conference audience to develop — and not abandon — IPMs at their facilities, Danneberger said: “If you're doing good practices ... they get better each year. If it is sound practice but doesn't work well the first year, don't throw it out the window.”

The concept of IPM is minimal disturbance, he said. “You will do as little, under optimum maintenance, as you can. That doesn't just mean reducing pesticides. Cultural practices can cause disturbances. Anyone who has dropped a height of cut on a green for a term knows that.”

The Ohio State University professor said the technical approach to IPM strategies involves cultural and biological practices, resistant cultivars and chemicals.

By using IPM, “you're hitting [application] rate with cultural practices, number with biological control, and resistance with chemical control,” he said.

“Most of our problems relate to resistance,” Danneberger said, explaining that the more a chemical is applied the faster pests develop resistance to it. “Fungicides are applied more often and that is why we experience more resistance with them,” he said.

Danneberger said superintendents should “quantify what you have on the course. If you have data you have knowledge. And if you have knowledge you have power.”

Having that data as a baseline makes it possible to gauge effectiveness of a maintenance program into the future.

“If you're doing good cultural practices you will see a lot

Continued on page 29

Walter Woods makes mark far beyond bounds of St. Andrews

Walter Woods is head superintendent at St. Andrews Links in Scotland, the holy Mecca of golf. Woods has been the links supervisor the past 20 years. He consults worldwide and is past chairman of the British and International Golf Greenkeepers Association. Contributing Editor Terry Buchen interviewed him during January's British Turfgrass Management Exhibition Seminar '94 in Harrogate, Yorkshire, England.

Golf Course News: How has the golf course changed over the past 20 years?

Walter Woods: We have had many [British Open] championships and that has improved us. To deal with the top players playing our courses I had to get more education. I did that by going to America. Your education system had a lot to offer and I was able to incorporate what I learned into the conditions we find here. I think we've improved St. Andrews because of what I learned in America combined with what we knew about British conditions.

GCN: Have British and Scottish courses evolved toward what we find on American courses?

Woods: I think they have. Despite the romantic things they say, I don't think golfers today would want to play courses with the conditions we had 20 years ago. We fertilize more than we used to. We're cutting fairways with triplexes rather than the gang mowers we used to use. During



In preparation for the 124th British Open Championship next year, St. Andrews is refurbishing its famed sod-wall bunkers — the Hell Bunker on the 14th hole, above, and Shell Bunker on the 7th, below — worn by the wind and golfers' sand blasts.

the Open, greens are cut two or three times a day because the pros demand putting conditions be faster.

Nowadays we would never succeed by closing our courses in winter. During the winter we expect people to play golf, use the gaming machines, buy food and drink. Therefore it's important we have a 12-month season. That's another reason education is so important.

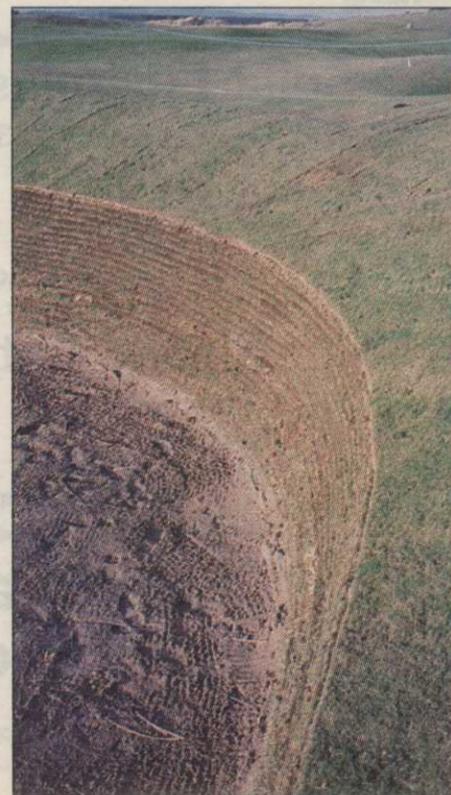
GCN: Sundays are interesting at St. Andrews.

Woods: We've always closed Sundays. Many people have suggested we stay open to get the extra revenue. But Old Tom Morris said many years ago that if people don't need a day of rest the golf courses still do. We've always stuck by that. People are allowed to walk the golf course Sundays. You see couples and children and people with babies in their arms. It's more recreation. And then on Monday, it's back to golf again.

GCN: What time does your maintenance staff start work and golfers begin playing?

Woods: In Scotland we have long nights

Continued on page 28



Terry Buchen photos

Super Focus

Canada's Super of the Year

An aquarange in summer, ski trails in winter — Palmer has it all

By MARK LESLIE

Twenty-eight years ago the city of St. John, New Brunswick, asked Blake Palmer to operate its nine-hole Rockwood Park Golf Course for one year. He had no turfgrass knowledge, no managerial experience — and no budget.

Today, Palmer's 2,000-acre Rockwood Park boasts 18 holes of golf, an aquatic driving range that was one of the country's first, and something that truly sets his facility apart — more than 50 miles of cross-country ski trails.

And in March, the Canada Golf Superintendents Association named Palmer its Superintendent of the Year. That one-year appointment back in 1966 has reaped benefits for St. John — and proven a challenge to the 57-year-old Palmer.

Faced with keeping grass alive, the St. John native studied turf management at Nova Scotia Agricultural College in 1975-76; tapped his colleagues for all the knowledge he could; and succeeded in earning his way onto the CGSA board as Atlantic director in 1984, enroute to the national presidency in 1990-91.

In the meantime, play at Rockwood Park Golf Course rose continually until it built the aquatic driving range in 1980 and hired architects Geoffrey Cornish and Bill Robinson to design a second nine holes in 1983 — a job finished in 1987.

The 16-bay driving range has been a money-maker since Day One, staying open until 10:30 p.m. from mid-April to mid-October, Palmer said. "We keep it lit up at night, which is when we get most of our clientele."

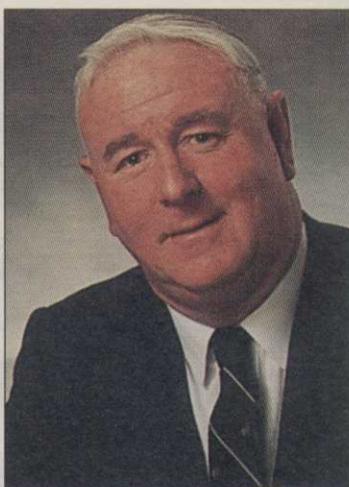
A pontoon boat with a funnel in the front floats over the balls and picks them up. A boom keeps the balls in the driving area so they don't float out into the 10-acre lake.

Reflecting on his CGSA presidency, Palmer said: "It was a great experience. The only problem is, you don't prepare yourself for when you come off the board and there's that time to fill. 'Personal time' is once again truly personal."

Yet, even during the winter, there is plenty to occupy Palmer's work time. Fifty miles of cross-country ski trails beckon him and his crew for grooming. And the summertime golf pro shop has become a "viable operation" as a ski shop, he said.

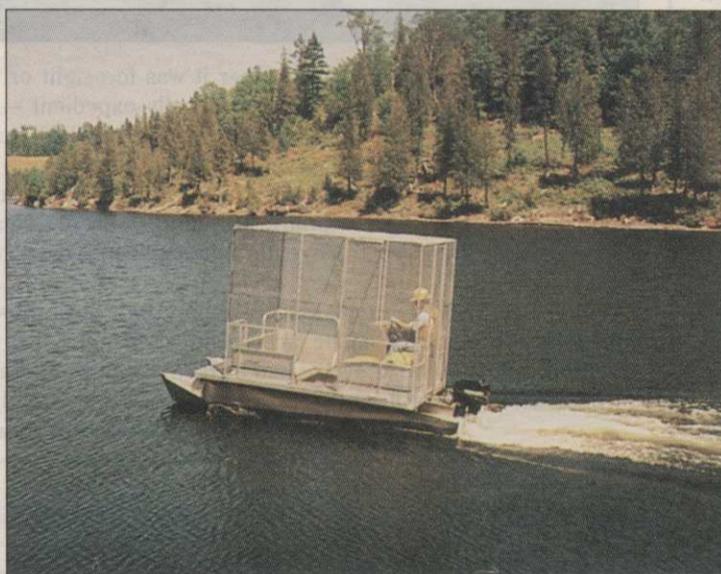
While Palmer and Rockwood Park Golf Course have met success at every turn the last two decades, he fears the Canadian economy may imperil the sport.

"If I have a concern about the industry as a whole," he said, "it's with the public and municipal golf courses. There has been a lot of talk of budget cuts and even privatization of golf courses, and if that hap-



'Golf once again may become available only to the elite. The public and municipal courses have made golf available to the blue-collar worker.'

— Blake Palmer



pens, we could be going backwards.

"Golf once again may become available only to the elite. The public and municipal courses have made golf available to the blue-collar worker."

Palmer said evidence of that has already been seen in Atlantic Canada. "There are only rumbles now, but it might become reality in a few more years. I don't think it's a question of making money. Rather,

government simply wants to get out of entrepreneurship and turn it over to the private sector.

"The golf industry is probably going to have to come in with some counterproposals, or try to win public support."

Born and bred in the world of agriculture, Palmer has seen many changes — "technology in general" — in his current world of turfgrass management.

"When I came here, we were watering by hand," he said.

"Now it's fully automatic and computer-operated. This is the way of the '90s. A lot of the chemicals we used years ago are now restricted. It's been 13 years since we've had a new fungicide registered for turf in Canada. All our chemicals have to be approved by Agriculture Canada. And Health and Welfare plays a part as well."

Palmer said Integrated Plant Management [IPM] is the key to drive the greenkeeping engine now, and in the future.

Will the role of superintendents change?

"The younger generation has a lot going for them, educationwise," he said.

"Certainly, IPM is going to have a dramatic effect on how we manage our golf courses in the year 2000. The way we're faced with recession and cutbacks, a lot of guys will operate with smaller crews. But the technology out there will take up the slack."

Ahead of its time

Continued from page 13

water to speak of. To create the type of course we envisioned — a park-like, recreational course — was going to take considerable effort."

Some of their solutions could be models for many golf courses today, including a water-recovery system that ties together rainwater roof run-off, surface water, ground water and six manmade lakes.

RECYCLING WATER

From the beginning, Mirkes and his crews were concerned about developing methods to maximize available water to maintain and irrigate the property. They turned to recycling natural resources.

"There were no natural lakes on the property when we began development... We knew that eventually there would be a limit to the availability of water. So we turned our attention to recycling what we did have."

Mirkes' crews developed a network of underground tiles and built the lakes, which average a half acre in size and are four to 12 feet deep. Three of the lakes are interconnected.

"Our system is built to recycle and re-use our own water," Mirkes said. "Rainwater from all roofs on the property is caught and retained, as is water from air-

conditioning units and the pools. We then use this water to irrigate the hotel property and golf course."

Mirkes' concern for natural resources extends to the manner in which the property is tended. "Throughout the property, we considered the various uses and demands that would be placed on the grasses, including the demands placed on natural elements," he said. "Illinois seasons — both summer and winter — can be harsh on tender foliage. That's one of the reasons we selected bluegrass — for its resistance to drought. It gives us the durability for both weather demands and foot traffic."

CHEMICAL-FREE AND TREE-LINED, TOO

Near the start of opening the course, Mirkes also decided to use no pesticides or chemical enhancements, striving "to control weed growth through healthy grass and proper cuts ... to maintain natural treatment and spot treat trouble areas."

Mirkes said Pheasant Run has also returned to lighter, smaller equipment "that doesn't damage the grounds, plant life, or our ability to do our jobs."

Meanwhile, while there were "exactly 38 trees" when the 7,100-yard track was built, Mirkes has planted more than 1,000 maple, locust and crabapple trees over the years — a couple of hundred a year for the first few years.

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Trevor Smith heads up Canada's 1994 officers

CALGARY, Alberta, Canada — Trevor Smith, superintendent at Rivershore Golf Club in Kamloops, B.C., is the new president of the Canadian Golf Superintendents Association.

CGSA members elected Smith president during the 45th annual Canadian Turfgrass Conference and Trade Show here in March. He succeeds Mark Dufresne of Beaconsfield Golf and Country Club in Ile Perrot, Quebec.

Michael DeYoung of Hartlen Point Forces Golf Club in Shearwater, Nova Scotia, was elected vice president, while David Boyd of Heritage Pointe Golf and Country Club in Dewinton, Alberta, secretary-treasurer and Alberta director.

Other providential directors are Merlin Affleck of Stanhope (Prince Edward Island) Golf and Country Club; Doug Meyer of Cedarbrook Golf and Country Club in Ste. Sophie, Quebec; Rob Officer of Winnipeg, Manitoba; Dean Piller of Cordova Bay Golf Course in Victoria, B.C.; Pelino "Paul" Scenna of Burlington (Ontario) Golf and Country Club; and Glen Trentini of Emerald Park

(Saskatchewan) Country Club.

Executive Director R. Vince Gillis reported that close to 500 superintendents took part in various seminars and educational sessions at the event. More than 100 businesses displayed their products and services, and nearly 1,500 people attended.

The 1995 conference will be held in Ottawa, Ontario, on March 11-15.



Canadian Golf Superintendents Association members have elected their 1994 officers, including, seated, left to right, Director Pelino "Paul" Scenna of Burlington, Ontario; Immediate Past President Mark Dufresne of Ile Perrot, Quebec; President Trevor Smith of Kamloops, B.C.; Vice President Michael DeYoung of Shearwater, Nova Scotia; and Director Merlin Affleck of Stanhope, Prince Edward Island. Standing, Director Rob Officer of Winnipeg, Manitoba; Secretary-Treasurer David Boyd of Dewinton, Alberta; and Directors Glen Trentini of Emerald Park, Saskatchewan, Dean Piller of Victoria, B.C., and Doug Meyer of Ste. Sophie, Quebec.

ASPA funding research projects

Research grants totaling \$16,000 have been awarded to four university research bodies by the American Sod Producers Association's Ben Warren Memorial Foundation. These projects were selected by the foundation's Research Committee from among 14 projects submitted by 24 researchers at 13 institutions, requesting a total of \$75,580 for the 1993-94 fiscal year.

Projects receiving support are:

"Short and Long-term Irrigation Water Needs of Turf Established by Sodding, Seeding and Hydroseeding." Dr. C. H. Peacock, North Carolina State University.

"Evaluation of Genetically Changed Bluegrass For Resistance To Summer Patch Caused by Magnaporthe Poae." Dr. H. T. Wilkinson, University of Illinois.

"Development of a Technique to Determine Gray Leaf Spot Resistance in St. Augustine Selections." Dr. G. E. Holcomb, Louisiana State University

"An In-depth Analysis of the Direct and Indirect, Short and Long Term Costs of Sodding vs. Seeding and Hydroseeding." Drs. K. B. Marcum and A. B. Stevens, Kansas State University.

Funding for the ASPA Ben Warren Memorial Foundation Research Grants comes from a contribution from ASPA operating revenues, donations from individuals and firms, as well as a \$5,000 contribution received from the Ciba Turf and Ornamental Group.



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Bloch steps down, calls for golf to continue environmental progress

By Dr. MIKE KENNA

SCOTTSDALE, Ariz. — Armed with more than 70 years of experience maintaining golf courses and the scientific results from turfgrass and environmental research, the United States Golf Association (USGA) and allied associations continue the debate golf's future relationship with the environment.

"The player, club and ball have always been essential elements to the integrity of the golf equation," said outgoing president Stuart Bloch at the USGA's recent annual meeting here. "Our challenge today is to tackle the fourth element of that equation: the environment. Properly mastering the environmental element may be the USGA's most important contribution to preserving the future of golf."

"Golf's popularity has placed us on the world's stage," said Bloch. "From that view we can now see the challenges facing us such as blending golf course needs with the demands of wildlife, water and modified pesticide use. Many of the problems may have been created, in part, by the very practices which we have recommended. Now, we have learned that we must alter some cultural practices, for the health of people, preservation of our courses and the environment."

According to Jim Snow, national director of the USGA Green Section: "Our challenge now is not just to improve the quality of the game — we are also intent on improving the quality of the game's impact on our environment. There are many people outside the game of golf who believe golf courses are hurting the environment. These beliefs, whether they are accurate or not, can have real effects."

Snow said he felt the cost of building and maintaining golf courses has risen dramatically and that several new courses can not get beyond the planning stages because of environmental concerns.

"There are four areas of concern and the USGA is sponsoring impartial, scientific research and programs in each," said Snow. "These concerns may be about contamination of water supplies, irrigation water use, destruction of natural areas, or the effects of golf courses on people and wildlife."

A general overview of USGA sponsored research concerning water, pesticides and fertilizer fate, and new turfgrasses was given by Dr. Kimberly Erusha, director of education, USGA Green Section. "The USGA has funded studies at 10 leading universities investigation of how pesticides and fertilizers move

through the turf and soil system," said Erusha. "The most important fact we've learned is that turf acts as an excellent filter for pesticide and fertilizer movement through the soil. In other words, turf protects our valuable ground water from chemicals applied at the surface."

"Many of the models or mathematical estimates currently used by EPA are based on agricultural conditions," Erusha continued. "We now understand



Stuart Bloch

that leaching in agricultural and golf course situations are fundamentally different. Turfgrasses provide a complete ground cover and have a very extensive root system which contrasts what we have with row

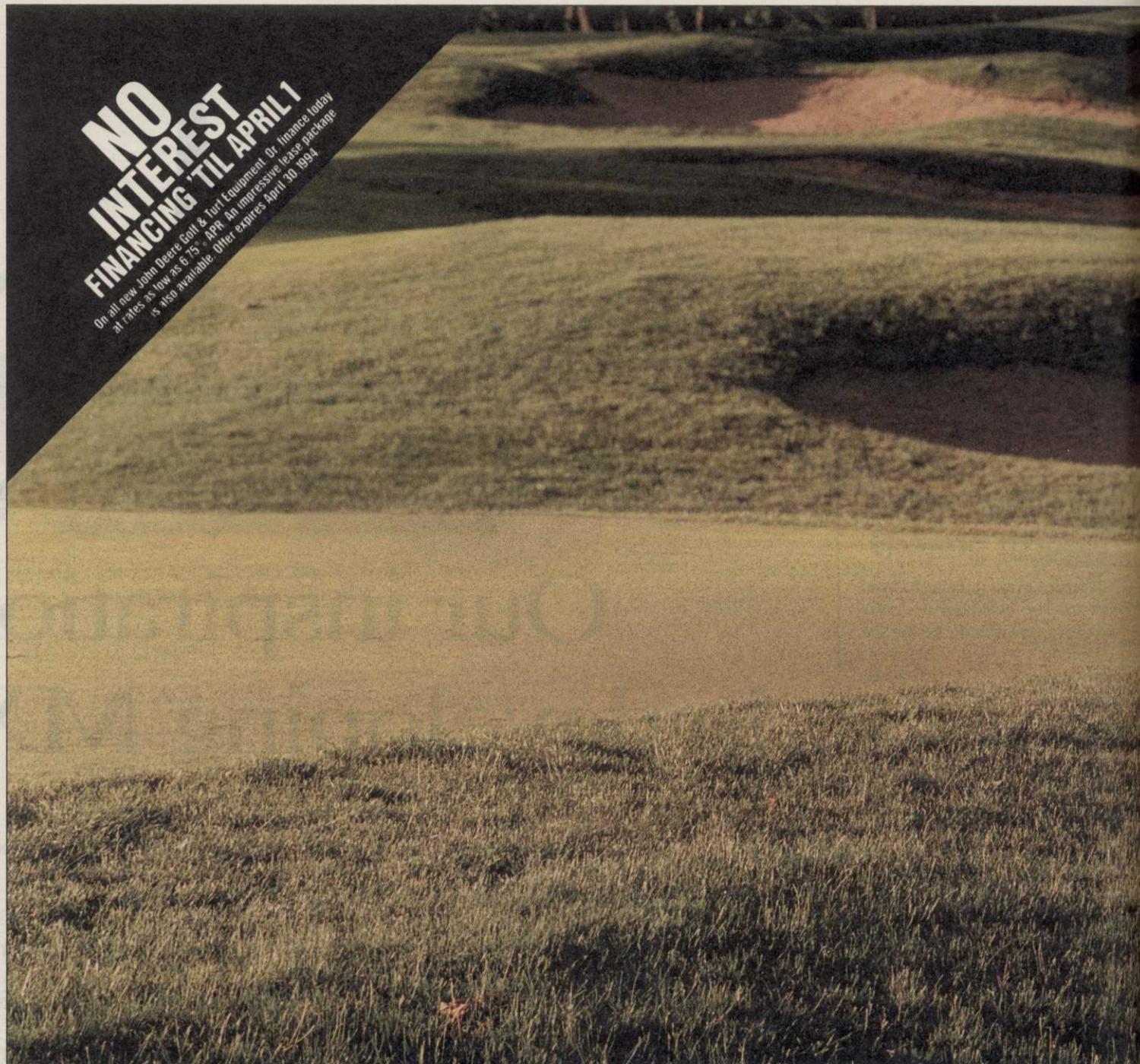
crops. The models used by regulators are based on agricultural situations and over-predict the amount of chemicals that leach through turfgrasses."

All the news was not good. "Pure sand greens tend to leach more fertilizer," said Erusha. "Research at Washington State University strongly supports why the USGA has recommended organic matter, like peat moss, in putting greens since 1960. The addition of peat moss greatly reduces fertilizer

leaching to within EPA maximum concentration limits."

"Probably the most significant finding is that well-established and maintained turf allows only one percent of the nitrogen applied to leach through the soil," reported Erusha. "This is a critical point, when many sensationalized media reports erroneously claim that up to 50 percent of the applied chemicals leach through the soil. There is a big disparity between

Continued on next page



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Hydraulic reel drive and John Deere 26-inch cutting units allow the new 2653 to power through tough conditions as well as precisely follow ground contours.

Thatch proven important to pesticide fate

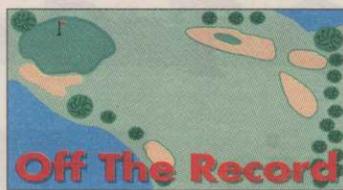
By DR. MIKE KENNA

Often overlooked by scientists responsible for predicting the fate of pesticides is the markedly positive effect of thatch in retaining and breaking down organic chemicals.

Four pesticides applied on a Kentucky bluegrass turf during a

joint research study conducted by University of Nebraska at Lincoln (UNL) and Iowa State University (ISU) appeared to break down faster than what is typical when these materials are applied to other agricultural crops.

As part of the United States Golf Association (USGA) Environmental Research Program, the overall goal of this sponsored research project was to determine the effects of golf course cultural practices on the persistence and mobility of selected pesticides in the turfgrass environment. The research sites, with established stands of Kentucky bluegrass, were located at the John



Seaton Anderson Research Facility in Mead, Neb., and at the ISU Horticulture Research Station in Ames, Iowa.

In 1991 and 1992, recommended rates of pendimethalin herbicide, isazophos and chlorpyrifos insecticides, and the fungicide metalaxyl were applied at both study sites. Before and after the pesticides were applied, leaves,

shoots, thatch and soil were evaluated for pesticide residues.

The turfgrass leaves, shoots and thatch intercepted most of the pesticide during application. Over time, the amount of pesticide recovered in leaves and shoots decreased due to irrigation, rainfall and clipping removal.

The thatch layer, which retains pesticide residues and is somewhat unique to turfgrass systems, generally contained the greatest amount of pesticide residue throughout the 16 weeks of monitoring.

Relatively little chlorpyrifos, and very low amounts of pendimethalin

moved through the thatch layer into the underlying soil. Slightly more isazophos was found in the soil, but did not increase beyond the amounts found one day after application, which indicates rapid breakdown and limited mobility of this product in the soil.

With the exception of metalaxyl, soil concentrations of the pesticide were generally highest at soil profile depths of 0 to 2 inches and 2 to 4 inches throughout the study. Metalaxyl moved through the entire 24-inch soil column tested and the concentration increased up to 28 days after treatment applications. However, the reported metalaxyl concentration found below 20 inches within the soil was less than 150 parts per billion (150 micrograms per kilogram).

Overall, the results reported by Drs. Garald Horst and Pat Shea from UNL and Dr. Nick Christians at ISU indicate that all four pesticides appeared to break down or degrade more rapidly in the turfgrass environment than what is typically reported for other agricultural uses of the same products.

The completed research emphasizes the need for an evaluation of current mathematical models used to predict pesticide movement in turfgrass and agricultural systems. Unfortunately for golf, the current prediction models do not adequately estimate the role of turf leaves, shoots, and especially the role of thatch.

USGA research

Continued from previous page media fiction and USGA facts."

Ron Dodson, president of the Audubon Society of New York State, discussed the success of the Audubon Cooperative Sanctuary Program which receives financial support from the USGA. "We felt it was time to stop telling people what they were doing wrong, and start helping them to do what we thought was right," said Dodson. "Golf and much of America have a perception-equals-reality problem. Most non-golfers, through negative media coverage, feel golf is bad or golfers are bad. The Cooperative Sanctuary program has provided golf an opportunity to tell the rest of the world what is good about golf with regard to environmental issues."

"We have a responsibility to educate the general public, regulatory agencies, and environmentalists," said Snow. "We need to learn—and then teach them—about the environmental benefits of golf courses and what is being done within the game to protect the environmental."

"In April, the results of several environmental studies will be presented to the USGA Turfgrass and Environmental Research Committee," said Snow. "We'll develop a variety of ways to get this information out, where it can be used to improve course management and the game. But the final success of our effort will depend on the willingness of golfers to learn and share the good environmental news about golf."



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O n T he G reen

48 hours — Not the movie

By MARK LESLIE

OVERLAND PARK, Kansas — Nobody's scoffing at Sandy Queen any longer. Not after he accomplished the impossible, stripping and resodding two greens at Overland Park Golf Course and returning them to play in two days.

Queen, manager of golf operations for the city's three courses, said a club

member who had been involved in a private club's green resodding project just laughed when Queen announced his 48-hour plans. But Queen, head superintendent/mechanical guru August Lietzen, and their crews proved all the skeptics wrong.

"In 24 hours you could hardly see the seams [of the sod]," Queen said. A day later, 175 to 200 golfers played the new greens.

"I was pleasantly surprised it was able to withstand play that quickly without any difficulties with the turf. It was probably more of a relief than a surprise," Queen said. "We try to set high standards, and I think if you spend the time in planning and organizing, you can do most things. The question was whether the plan would translate into being able to play on the turf that quickly."

The keys to success for Overland Park included a large (15-man) crew to remove the sod, wide (18-inch) rolls of sod, and a barbecue fork. But you can toss the fork, said Queen, convinced that the rest of the process is so effective, the fork is unneeded.

"We were looking for a way to expedite the process and minimize the downtime to our golf course," Queen said. "We found it."

Indeed, the process has been completed twice the last two years — two greens at a time — and the program has been improved from start (in the nursery) to finish (no top dressing is done until a week later).

Step by step, Overland Park's refined plan, which also restored the original contours of the greens, follows:

- First, establish a nursery. "The original size of our greens was 8,000 square feet. We established a 20,000-square-foot nursery."



Crew members at Overland Park (Kan.) Golf Course help roll out the green carpet in their record-time sodding program.

- Pick the best time of year for the project. "On the greens, we had original rooting in two days and knitdown in five days. So late-September timing was very good for us," Queen said. Temperatures were in the high 50s at night and the low-to-mid-70s in day.

- Examine the green profile and correct any problems before laying sod down on a bad area.

- Outline the original contours, and have a large crew remove the sod, starting at the centers of the greens and working out. Queen's 15-man crew, armed with sod cutters, removed the sod to a depth of 1-1/2 inches in about four hours.

- Run a Verti-Drain over the green "rather severely to break up the subsurface before putting the sod down. That works well."

- Put down a starter fertilizer.

- Cut strips of sod (Queen's was 3/4 inch thick) into 95-foot lengths. Roll them up with landscape tempers and load them onto utility vehicles to be transported to the greens.

- Here's where Lietzen's ingenuity saved the project. Since the rolls of sod were too heavy for less than a four-man crew to unroll, "August mechanized the process," Queen said. Lietzen rigged a

tractor bar on the back of a tractor to hold the roll. Plywood was laid down as far apart as the tires on the tractor. The tractor was driven down the plywood highway, so as not to disturb contours, and the sod unrolled.

A tip here: "With long rolls, the sod tends to build up in front of you and you have to pull it back to keep the sod tight. Basically, you cut a 90-foot roll in the nursery and it lays out to about 100 feet."

- After the sod is laid, take a two-by-four and press the edges of one roll firmly against the roll beside it.

"It became very easy to lay it down. The crew size kept getting smaller and smaller," Queen said, until "We had two people cutting the sod, two hauling it, two rolling it out, and one person interfacing the edges to the existing turf."

- Optional: Knit the rolls together. "Originally, we took barbecue forks and knit the rolls together. Basically, you center the fork over the two seams, give it a twist, and it interlocks the sod.," Queen said. "It did an excellent job and was a pretty quick process, but I don't think now that it was necessary."

- Water the sod as quickly as possible — "a key to our success."

Continued on next page

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The new Turfgrass Science Museum will be dedicated to Thomas Mascaro, left, and Eberhard Steiniger.

Penn State has Turfgrass Science Museum in works

UNIVERSITY PARK, Pa. — Pennsylvania State University and The Pennsylvania Turfgrass Council have announced a new Turfgrass Science Museum will be dedicated to Thomas Mascaro and Eberhard Steiniger. The museum will be named the Mascaro/Steiniger Turfgrass Museum.

The 40,000-square-foot museum is being constructed on the Penn State campus and will display many inventions, including those developed by

Mascaro and the collection of Steiniger. The need for a museum was conceived by Dr. Joseph Duich, now retired from Penn State.

Mascaro was president of West Point Products for 55 years. In 1986 he and his son, John, formed Turf-Tec International which designs diagnostic turfgrass instruments for golf course superintendents to obtain factual information. The business is located in Oakland Park, Fla.

Steiniger was golf course

superintendent at Pine Valley Golf Club in Clementon, N.J., for 57 years. Steiniger collaborated with Mascaro on more than 20 inventions in testing and evaluating their performance. His private collection of equipment will also be on display.

The formal dedication of the museum will be held at the Penn State Turfgrass Field Days, Aug. 10-11. For more information, contact Pennsylvania Turfgrass Council, P.O. Box 1078, Lemont, Pa. 16851-1078; 814-863-3475.

Quick sod

Continued from previous page

Afterward, Overland Park's maintenance schedule included "periodic mowing to get it down to [desired playing] height as soon as possible," Queen said. "We did not aerify until the next spring.

"In our new process we are immediately going in with a pre-emergent because the reason we renovated in the first place was the amount of poa annua we have. We've also integrated a turf growth regulator and it seems to fight the poa off the greens."

Queen recommended top dressing be delayed for a week after laying the sod. He did top dress and said, "It caused a sand layer across the seam and developed a slight ridge area that took 30 days to top dress it out."

While Queen found that using 18-inch rolls "significantly reduces the cross-seams on the green and greatly shrinks the size of the crew necessary," Lietzen has made a 30-inch sod blade to use this fall.

"This will reduce 75 percent of the seams," Queen reported.

No one in Overland Park is scoffing any longer. Plus, the reputation of the course, which plays 75,000 rounds a year, is intact.

"Being a public course, our philosophy is to be always open. We don't think we can get away with temporary greens for three or four months," Queen said. "If we closed nine holes it would cost us about \$3,000 a day. But more important is, what does it do to your reputation for the next two years? Whenever a golf course closes for renovation, people get the mind set that it is under construction and they steer away from it. Then, after the course opens up, people are used to visiting other facilities. We don't want them going anywhere else."

The project's total cost? "Not much," Queen said. "We built the nursery and spent \$400 to \$500 in sod blades.

"But, mostly, the results were successful because the staff was allowed, and had the initiative, to come up with ideas to improve the entire process."

GOLF COURSE NEWS

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Buchen a Master Greenkeeper

An American superintendent has been awarded the prestigious Master Greenkeeper Certificate from the British and International Golf Greenkeepers Association (BIGGA).

Terry Buchen, 47, of Double Eagle in Galena, Ohio, collected the award from Lord Griffiths, captain of the R & A, at BIGGA's recent Turf Management Exhibition in Harrogate, Yorkshire.

A contributing editor to *Golf Course News*, Buchen picked it up with two British greenkeepers, David Whitaker and Anthony Davies. Four years after the launch of the Master Greenkeeper Certificate, there are now eight Master Greenkeepers.



Johnny Burns' block modification, which attaches directly to the Verti-drain, adds major impact to aeration process.

Burns' invention greatly increases deep aeration

By PATRICK M. O'BRIEN

One of the first superintendents in the United States to buy a Verti-drain, Johnny Burns continues to add inventions to improve the machine's production.

The superintendent at Charlotte (N.C.) Country Club in Charlotte,

Patrick M. O'Brien is director of the United States Golf Association Green Section, Southeastern Region.

Burns last spring developed a new block modification that allows closer tine spacing and increases to about 66 percent the amount of root-zone material extracted. The new attachment may improve the efficiency of the Verti-drain aerator, so that fewer treatments are needed for even the poorest of soil conditions.

Verti-drain deep-tine aerification is a labor-intensive, disruptive maintenance operation for putting greens.

In 1987, the Verti-drain was introduced into the United States from Holland.

The new block is steel-reinforced and attaches to the existing tine holders of the Verti-drain. Four bolts are used to secure them to the machine. This block allows the superintendent to produce an alternative tine pattern with a three-by-three-inch rectangular spacing, compared to the existing irregular pattern of three-by-4-1/2-inch with the original tines. This allows for a significant increase in the amount of root-zone material that can be extracted during the aerification process.

With the use of a 1-1/8-inch hollow tine, and a normal penetration depth of 10 inches with the Verti-drain, approximately 3.4 cubic yards of soil per 1,000 square feet can be extracted with the new attachment.

The original block pattern using the same tines and depth penetration will extract 2.3 cubic yards of soil per 1,000 square feet. On a 5,000-square-foot green, it is possible to extract up to 10 percent of the root-zone material using this procedure, compared to six percent without the attachment.

However, it does take significantly more time and labor to complete this project, with the large volume of root zone extracted and the top dressing required afterward to fill the holes. At Charlotte Country Club, using the original tines normally took the aerification crew 18 hours to complete the project, but using the new blocks doubled the project time to 36 hours. With the increased number of holes made during the project, it took the bentgrass approximately three weeks to fully recover during pleasant spring weather.

The new block attachment has helped Charlotte Country Club become more efficient with its Verti-drain program. The membership has agreed to try this new program for the next four to five years in the hope it will delay the necessity for a green reconstruction project. For older golf courses with less-than-ideal soil conditions, superintendents may consider using this idea to reduce the number of Verti-drain treatments and to make more of an impact on changing the soil profile.

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Ice Breakers

Sweda, Witt handle mega-problems with dispatch

By MARK LESLIE

It seems an Ice Age ago since Columbia Hills Country Club in Columbia Station, Ohio, was open. Indeed, according to superintendent Don Sweda, anxious club members in March were toying with the idea of playing golf over and around the 14-inch-thick chunks of ice littering their course.

While Sweda struggled with ridding two-thirds of his grounds of the mega-load of ice — left from the backed-up floodwaters of neighboring waterways — hundreds of miles away, Randy Witt found a new way to tackle ice half that thick at his Oneida Golf and Riding Club in Green Bay, Wis. Witt ran an aerator over the greens to loosen up the ice a half-inch at a time, then brushed it off and started on the next half-inch.

The rule of thumb is that bentgrass will live 60 days under ice. That's when superintendents should spring into action.

Using an aerator to break up the ice wasn't possible at Columbia Hills.

"We used our front-end loader. We either loaded it onto trucks and hauled it away, or literally pushed it away into the roughs," said Sweda. "The ground being still frozen, we were able to do it without hurting much turf."

Twelve fairways, six greens and six tees were under ice at Columbia Hills, the worst-hit in that area.

Chain saws, normally used for felling and cutting up trees, became ice-cutters to saw the huge chunks into manageable sizes. And Sweda used every able body at his disposal, swelling his eight-man crew to more than 20 by using kitchen help and other club employees.

Sweda, who normally would have opened the course by the end of February, said he couldn't even see the ground in some areas, the ice was so thick.

"We're still evaluating the damage," he said.

Was he worried about upset golfers? "I worry about things I have control over," he said. "I can't stop a flood."

•••

Meanwhile, Witt was perfecting an alternative to the standard techniques of spraying activated charcoal and darkening agents like Milorganite. Using them, a superintendent has to assume he will get sunshine.

Reporting on Witt's method at the International Golf Course Conference and Show in Dallas in February, U.S. Golf Association agronomist Robert Vavrek Jr. said: "The most important key to success is to not get too greedy... Also, work early in the morning when the ice is more brittle. The aerifier breaks up the ice in bigger chunks then."

Vavrek related on this step-by-step procedure:

- Pass a GA30 aerifier across the putting green with 6 inches of ice cover. Use standard 1-inch-diameter

solid tines on thick ice. When you get close to the turf surface, switch to 5/8-inch-diameter solid tines. Use blunt-tipped tines for thicker ice, and pointier tines closer to the putting surface.

"If you try to set the depth of penetration more than a half-inch, you get broken tines, broken arms, foremasters and other parts," Vavrek said. "Remember, don't get too greedy. Spend a few more passes across the green and it works well.

Go 90 degrees in the opposite direction. After two or three passes, the ice breaks up easily."

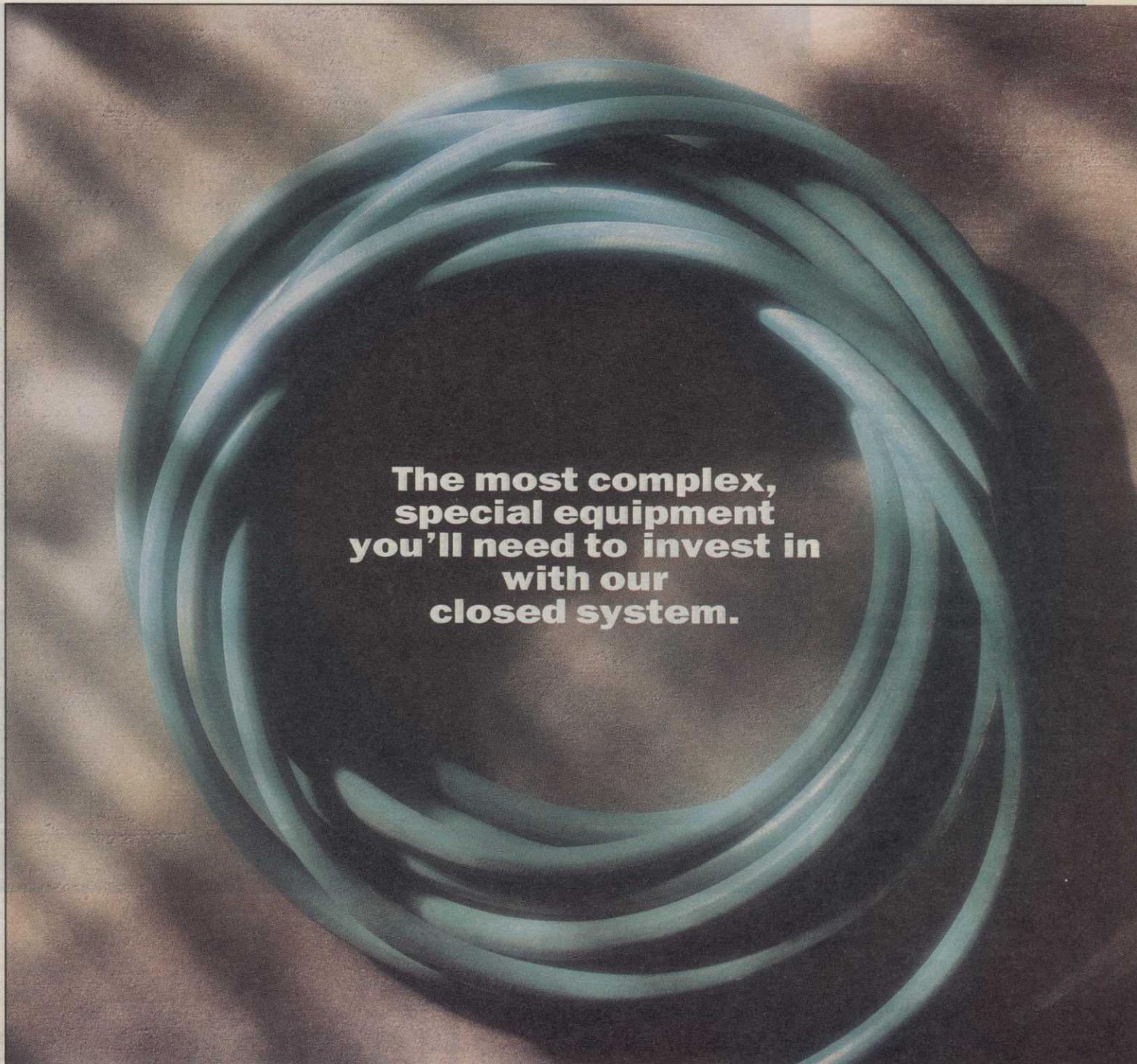
- Once ice accumulates, use a standard 72-inch mower equipped with a brush and sweep the ice off the green. If the ice does not break up into little chunks, use pusher bars instead of brushes.

Using this practice, Witt has managed in some cases to remove six to eight inches of ice from 19 greens within a week.



One of many huge chunks of ice at Columbia Hills Country Club sits ready to be hauled away.

Photo by Don Sweda



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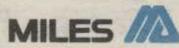
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Putting a pretty face on your golf course to make it photogenic

By MARK LESLIE

Since superintendents spend their lives beautifying their golf courses, what more welcome companions could they have than photographers?

"That's something I try to impress on them. My coming in to photograph their golf course doesn't just sell their facility. It furthers their career as well," said Mike Klemme, president of Golfoto, Inc. in Enid, Okla. "If Joe Blow from XYZ Golf Course has his course showing up in books, calendars and magazines all over the world, he's bound to get some credit. Spontaneous ads help everybody."

Golf course photography is serious business that can create big business, and a superintendent's role is crucial, according to Klemme and colleague Tony Roberts of Scottsdale, Ariz. They both contact the superintendent when hired to do "a shoot" for a course.

"In order to do a good job, I ordinarily talk to the point man and then the superintendent," Roberts said. "The reason is, what looks good to one person doesn't necessarily look good to me. They may think their brand-new grass popping up suddenly makes the place look like the Garden of Eden. To my eye, they may be a year away. They say, 'You're the magician. Make it look good.'"

"I like to talk to the superintendent two to three weeks in advance," Klemme said. "If I don't have a real good idea of the geographics and terrain, I like to visit with him about how tall the trees are, so I know how long the shadows are going to be, and it gives me an idea how long in the day I can shoot. If the trees are real tall and the shadows are real long, you can work a long time during the day. But if it's real open like Arizona, the only shadows you have are the undulations on the course, and it's a short day."

"If you don't have shadows, you don't have drama, and there's no sense of you being out there. Also, the shadows define the undulations and the feeling of the roll of the course. Without those, it's a flat-looking golf course and that doesn't sell anybody. We're trying to sell rounds."

"Practically speaking," said Roberts, "if it's an arid climate I'll ask if they can overwater the course for a couple of days beforehand, especially if there is any kind of brown grass or patches."

Saying the photographer's "not worth his salt if he can't work around the superintendent and his crew," Klemme added: "They are the ones who come first. Their job has to be done before the course looks right."

To that end, in his pre-visit conversation with the superintendent Klemme tries to

pinpoint the best time for him to get out on the course, working with the grounds crew's schedule as well as that of golfers.

"We also try to work with their maintenance schedule. Overseeding has to be done certain times of the year. Certain times greens have to be top dressed and fairways aerated."

The photographers' tips for preparing a course to be photographed include:

- Fine-tune the sand traps. "I

See related story, page 47

use traps as a foreground a lot," Klemme said. "Any kind of footprint really shows up. Also, the bunkers should be edged real well."

- Pick up all the rakes. "I guarantee, the quickest way to spot an unprofessional photo is the presence of rakes," Roberts said.
- Get ponds and lakes up to

level. "If water levels are down, it leaves a brown, ugly stripe between the water and the grass," Klemme said. "It doesn't hurt to put dye in the waters to blue them up, especially after a big rain."

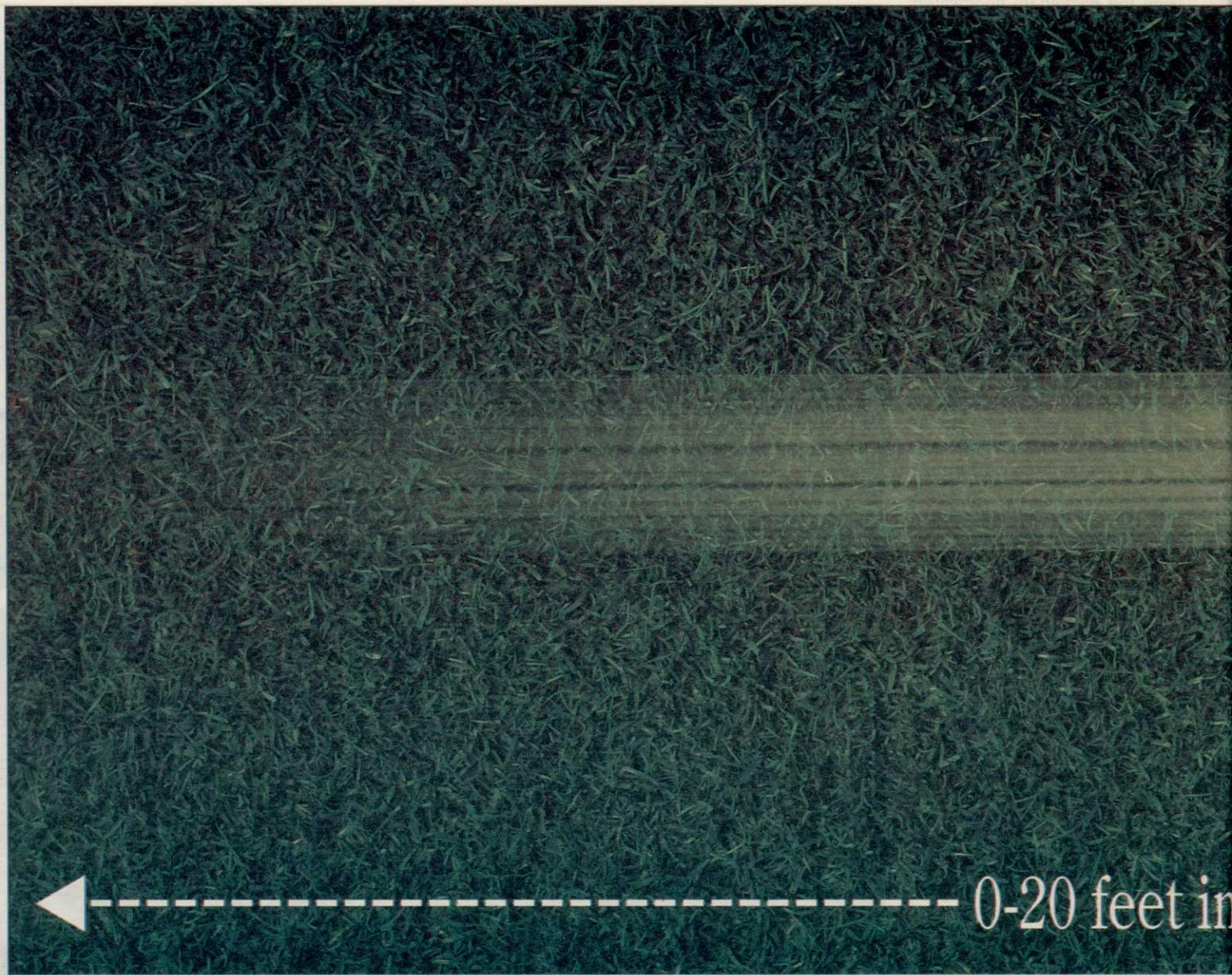
- In case of a heavy rain for two or three days before the photographer arrives, which keeps them from mowing the fairways, do not cut the grass all the way to normal height immediately. "Just bring the grass down a little bit, to where you

have definition but without scalping it too low," Klemme said. "Chop it low and it turns white. It plays havoc and looks terrible."

• If it's the time of year when dew appears, the pictures must be taken before ground crews track up the course or after they mow and drag the fairways to get off the dew.

• Send a crew member with the photographer in order to place the pins in the best places. "Usually, I'll

Continued on next page



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TGIF fortunes improve

First index of turfgrass library to roll off the printing presses this summer

By MARK LESLIE

EAST LANSING, Mich. — Turfgrass Information Foundation (TGIF) subscribers can expect their first printed index to the turfgrass library at Michigan State University by mid-year.

"It's new and exciting. There's nothing else like it," said Peter Cookingham, director of the Turfgrass Information Center which operates TGIF, the world's largest collection of turfgrass-

related material.

He said the index will list all articles in the library by author and subject. Volume 1, numbers 1 and 2, a combined issue for articles through 1993, should be mailed out by May. Numbers 3 and 4, covering articles through 1994, will be mailed 60 days later, Cookingham said.

Directors decided in February that the index will be updated semi-annually. TGIF is accessible

by telephone and computer.

•••

Within a year, turf managers in the Asia-Pacific region should be able to access TGIF through computers.

An Australian company is testing the use of the international computer network Internet to gather material from TGIF.

"Australians are disproportionately interested in this technology and dispro-

portionately perceptive," said Turfgrass Information Center Director Peter Cookingham.

Last December TGIF added access to Internet, which Cookingham called "the mother of all computer networks."

The work with the Australians, Cookingham said, "is prototype testing, but it is viable. I don't think there's any question it's going to work."

The bigger problem in the Far

East is gaining access to Internet — which is being called "the super-highway." The politics and mechanics of getting onto the network is difficult to generalize, varying from country to country.

"In some countries it's centrally and tightly controlled by the government. In other countries it's almost a free-for-all," Cookingham said. "But once it's 'do-able' it's totally location-independent."

Long-time super Crosby dies

Lonnie Crosby, an honorary member of the West Texas Golf Course Superintendents Association and a board member of Lake Cisco Country Club, died Christmas Day in Eastland Memorial Hospital.

Between 1968 and his retirement in January 1993, Mr. Crosby was superintendent at Snyder Country Club, Meadowbrook Golf Course and Winkler County Golf Course. He is survived by his wife, Dixie; a son, Russel of Lubbock; and a daughter, Brenda of Abilene.

15,386 attended GCSAA conclave

Registration totaling 15,386 highlighted the Golf Course Superintendents Association of America's (GCSAA) 1994 International Golf Course Conference and Show in Dallas. A total of 1,309 attendees from more than 50 countries attended the week's events. A record 671 exhibitors showcased their products and services during the three-day trade show at the Dallas Convention Center.

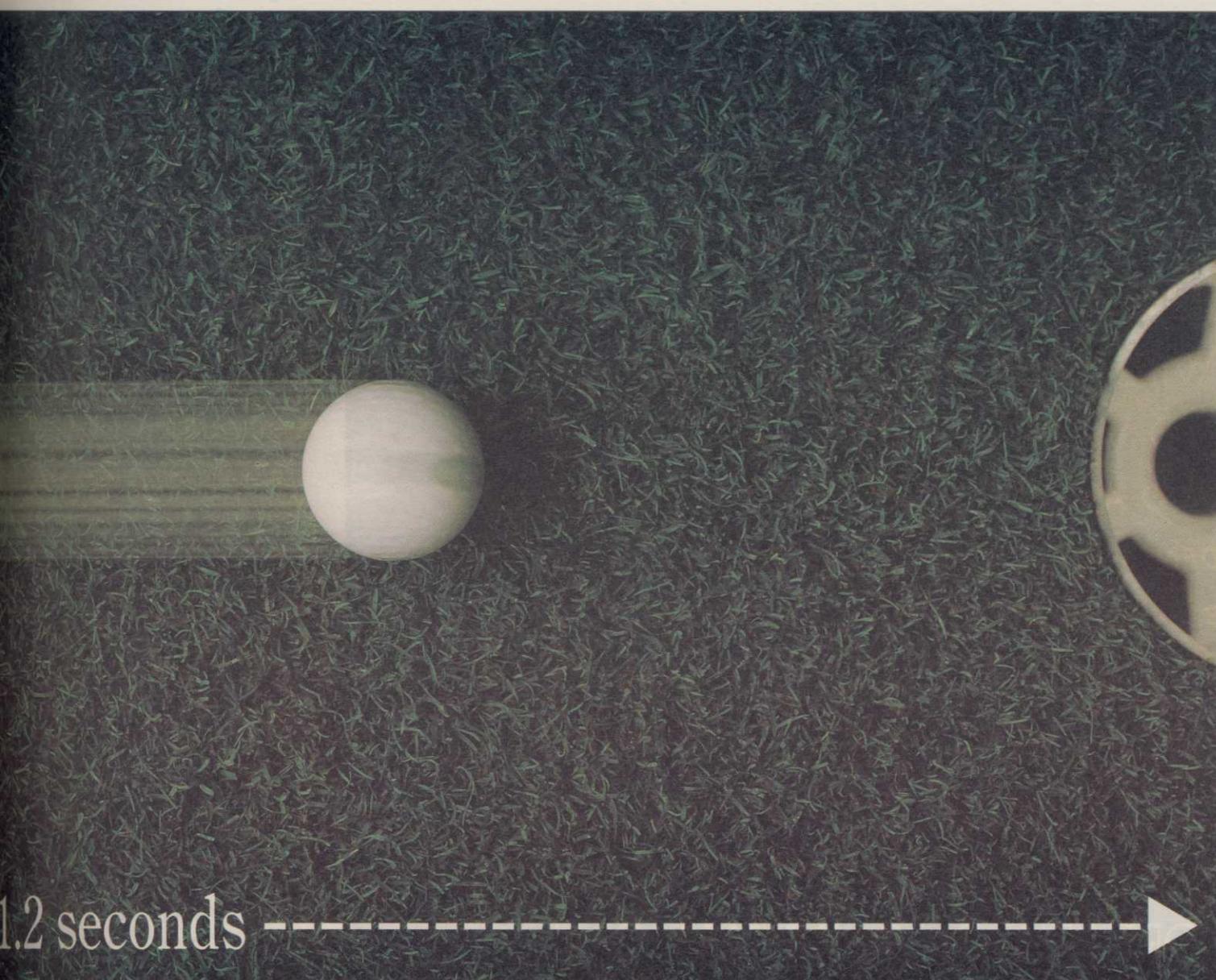
Beauty turf deep on golf courses

Continued from previous page
get to a position I think will make the hole look good and make sure they move the pin so it's not in front of the tree, and that the photo is balanced," Roberts said.

Klemme, who prefers to work alone, asks for a two-way radio. "It's nice to have that backup if you need ropes, signs or something else moved. If it's for a big-time ad campaign, I'll have them pull all the stakes, too."

To help the superintendent, Klemme arrives at least two or three hours prior to shoot, rides the course quickly, and tells the superintendent which holes he will shoot that afternoon and the next morning (providing photos with the light coming from both directions).

"That way, they'll be prepping just a few holes rather than the whole course," he said.



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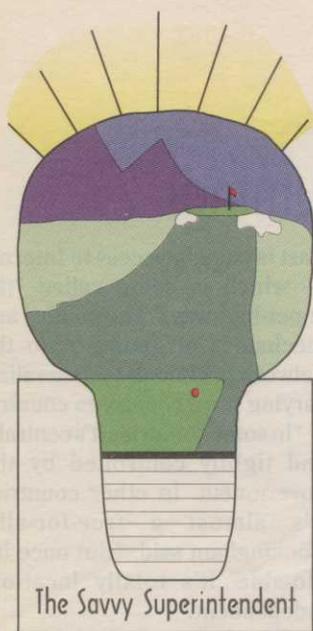
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Bird's-eye view of course a major help in many ways

By TERRY BUCHEN

From golf course superintendents to architects, builders and irrigation system designers, color and infrared aerial photography is taking off in the 1990s.

"We are starting to get requests from superintendents to have their as-built irrigation blueprints blown up to 50 scale after initial construction, and even on existing courses," said Larry Rodgers, an irrigation system designer from

Lakewood, Colo.

"Architects are using infrared photos as an alternative type of feasibility study, especially on inaccessible sites," said Bruce Hepner of Renaissance Golf Design in Traverse City, Mich. "It sure beats trying to dig test pits to tell what soil types there are on heavily wooded potential building sites and areas with wetlands and swamps."

Aerial photography has myriad uses for superintendents. Here's

some advice on how to use this tool.

Before the photos are taken, mark all irrigation sprinkler heads, gate valves, isolation valves, air-relief valves, wire splices, controller locations, quick coupler valves, etc., with round white-colored cardboard pizza discs, or with rectangular white plastic kitchen trash bags held down with metal sod staples.

Have a large white letter "X" marked for your surveyor to use

to mark "ground zero," where a permanent benchmark ground elevation is kept eternally.

Ask the aerial photographer to take color pictures, at a scale one inch equals 50 feet. Most aerials are shot at one inch equals 100 feet, or one inch equals 200 feet. But 50 scale is the most useful and productive size. It is so large that a 10-by-10-foot wall is needed to display it properly. Cover it with clear, non-reflective glass. The glass protects the picture and a magic marker can be used to mark areas on the course.

While the aerial photographer is making a shoot, consider having them do a topographical mapping overlay, which is usually a transparent velum that can literally lay over the 50 scale photo, showing all of the contour drainage elevations measured in feet. It can be rolled up and stored when not in use.

Consider taking the as-built of the entire irrigation system with piping, heads, etc. with the measurements in feet, and putting that information on a transparent velum, blowing it up to 50 scale that can also be overlaid on the color as-built aerial photograph. An irrigation designer with a computer CADD system can change an existing 100 or 200 scale as-built by blowing it up to 50 scale; a blueprint shop can then create a transparent velum.

Underground drainage as-built blueprints of the entire course, including greens, can be put on another transparency, by an irrigation system designer, changing the 50 scale for yet another overlay. This velum can be laid over the color photograph together with the irrigation and topographical velums to pinpoint everything about irrigated and drainage high and low spots.

THE GOVERNMENT

Another source for aerial photography, with budget limitations in mind, is to visit the local county Extension Service office and scrutinize its black-and-white aerial photographs — usually taken every three to five years. Reproductions, in a variety of scales and print sizes, can be ordered from the U.S. Department of Agriculture's office in Salt Lake City. They also have some color negative photography and color infrared positive photography.

Some counties routinely take color aerial 35mm slides, shot usually at an angle instead of overhead, that usually include golf courses. Making duplicates of the slides usually costs a dollar or two; then decorative blow-up prints can be made. This usually occurs in rural counties that take pictures of farms.

INFRARED PHOTOGRAPHY

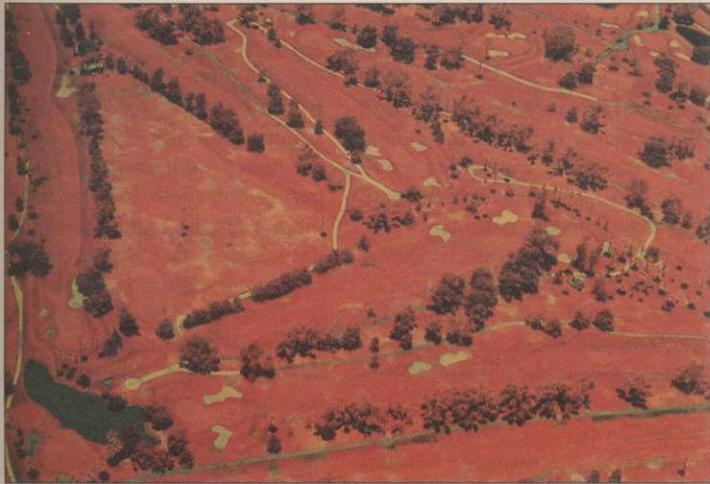
Another interesting tool in our arsenal is to have a company that specializes in infrared aerial

Continued on next page

GOLF COURSE NEWS

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Infrared photography captures the unseen.

Savvy Super: Overlaid aerial photos tell whole story

Continued from previous page
 photography shoot the golf course.

It is usually done on four 35mm slides after making as many flyovers at much lower altitudes than conventional aerial pictures. It is the only existing method of seeing the unseen and detecting the undetected. It can reveal:

- Irrigation system patterns, leaks and underground water-flow patterns.
- Drainage problems.
- Photosynthetic changes in

soils and all kinds of vegetation to help discover areas susceptible to stress, disease and insects.

- Rocky areas.

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The cost is about \$1,800 for a 150-acre site. The hardest part of infrared photography is interpreting the film. The most renowned — and perhaps only

trained professional — who takes his own pictures and then interprets them is John Seid, formerly of Innova Corp.

Seid interprets his photos with the superintendent, who can help him with plant types, history, etc., on existing courses, and with architects on newly planned sites.

Further information is available from Jim Raden of J.W. Raden Enterprises in Akron, Ohio, at 216-773-2932.

Supers share feelings on mortality study

David Gardner, Eagle's Landing Golf Club, Stockbridge, Ga.: I'm not concerned with it one bit. If I were a super 20 years ago, when they were using all those mercury compounds and arsenic compounds for insect control, it would be different. But these days, with integrated pest management, if you follow the rules and read the labels, you should have no problem.

Beside, I haven't personally applied a pesticide in five years. I have somebody else doing that.

Personally, I have changed my philosophy on pest management. I am a curative type of person now. I wait for a problem and then I try and address it. We have not sprayed a broad-spectrum or pythium product in five months. Five or six spots of brown patch is not a problem... I wait for a population that justifies putting an insecticide out.

That's my theory. Some other superintendents may say I'm an idiot, but my turf is healthy. And I would stack this golf course up against anyone's.

...

Mark Esoda, Atlanta Country Club, Marietta, Ga.: Well without having read the report, I think there's a tremendous opportunity to move forward with the study and protect people in the industry. If there is a higher lung cancer rate, which is 30 percent higher than normal, they ought to look further and deeper into it. And I think they're doing that.

I think that, if they find a cause, it may be gasoline fumes or something surprising — who knows? They may be able help protect people in other industries, too.

...

Larry Wood, Oak Cliff Golf Club, Dallas, Texas: I'm not worried about it. I'm very confident in my program.

I was born and raised on a farm and I've worked with chemicals all my life — long before EPA and all the regulatory agencies got involved. I was raised to use them in a safe way. Chemicals are a lot like automobiles. It all depends on how you use them. If you drive safely, go 55 miles per hour and mind your business, you've got nothing to worry about.

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Job market tightens up

Continued from page 1

sor John Piersol said the employment outlook for this spring's graduates will be about the same as a year ago.

"It's a reasonable job market, but not a boom like we had in the 1980s," said the director of the school's golf course operations program. "We're back to more normal times."

Part of the problem is too many students. In response to a shortage of superintendents in the 1980s, some colleges beefed up programs while others added new ones.

Pushed by the large number of laid-off, high-tech workers returning to school to develop new careers, UMass saw the number of turf students in its two- and four-year programs nearly double from 75 in 1985 to 140 in 1994, according to Cooper.

Penn State's Stephen Edkin, 35, is among the growing legion of returning students. Edkin earned a four-year degree in finance in the early 1980s. He was a banker for eight years before deciding to change careers. He played golf as a

youth and worked as an assistant pro for two years after high school.

"I thought about becoming a superintendent after high school," Edkin recalled. "But I didn't have a good role model for the profession. So I went into banking. But banking changed a lot in recent years and I needed something else. I did a lot of research and decided this is what I wanted to do."

Edkin will graduate this spring with a four-year degree in turfgrass management. He hopes to land an assistant job in the Northeast.

The Florida Golf Course Superintendents Association is concerned enough about the

growing number of graduates that President Paul Crawford of Palm Beach Country Club recently assigned Joel Jackson of Orlando's Walt Disney complex to chair a long-range planning committee to look into the supply-and-demand aspects of the job market.

"Recently in Palm Beach County, 75 qualified, educated superintendents applied for one job opening," Crawford wrote in *The Florida Green*. "Given our climate, I don't think the situation is going to get better."

Mark Kuhns, head superintendent at suburban Pittsburgh's Oakmont Country

Club, site of this summer's U.S. Open, agrees colleges may be grooming too many turf students. But, he adds, many experienced superintendents believe recent graduates are passing over lower-paying entry jobs that could earn them valuable experience in the unrealistic hope of landing a high-paying first position.

"There are a lot of jobs for hard workers who are flexible and up on new technology," Kuhns said. "But they have to get experience."

One of the best ways is through internships. Kuhns, a Penn State graduate, estimates 14 to 15 interns will have passed through Oakmont and helped prepare the course for the U.S. Open.

"If you've interned or worked at a big-name club, the possibility of moving up is just that much better. And it's a good thing to be able to put on the resume — helping prepare for the U.S. Open at Oakmont," Kuhns said.

Recent graduates should consider alternatives to assistant superintendent positions for their first job, Piersol recommended.

"Most of the jobs we hear about are still for assistant superintendents," he said. "But we're also hearing about more irrigation and spray technician openings."

In Florida, those positions generally pay \$18,000 to \$20,000 annually, as opposed to the \$20,000 to \$25,000 assistants usually earn, Piersol said. While lower salaries may make these jobs less attractive, they may be the best way to get experience, he added.

There is also a shortage of qualified golf course mechanics, Piersol said. Lake City offers a one-year certificate for course mechanics. Pay generally ranges from \$7.50 to \$10 hourly, with abundant overtime often available.

"We'll graduate just seven mechanic students this year. We'd like to get that figure up to 25 to 30. I could place 100 graduates right now," Piersol said.

Texas A&M University's Karen Lodico is a returning student considering alternative turf career. Lodico graduated in the early 1980s with a marketing degree that served her well in the hotel and travel industry.

"But I wasn't happy," said Lodico, who will earn a turfgrass management degree this spring. "I was more geared toward science. I'd like to get a job in turfgrass sales or irrigation."

Fellow Aggies Chris Cunningham, 24, and Todd Martin, 23, are more-traditional turf students but with non-traditional goals.

Cunningham will graduate in May with a double major in marketing and turfgrass management and aspirations for a career in chemical sales. "I'm hoping the two majors will make me more marketable," he said.

Martin will receive his bachelors degree in agronomy this spring, but plans to immediately start graduate school with an eye toward becoming a turf management consultant. "I'm pretty optimistic about the job market," he said.

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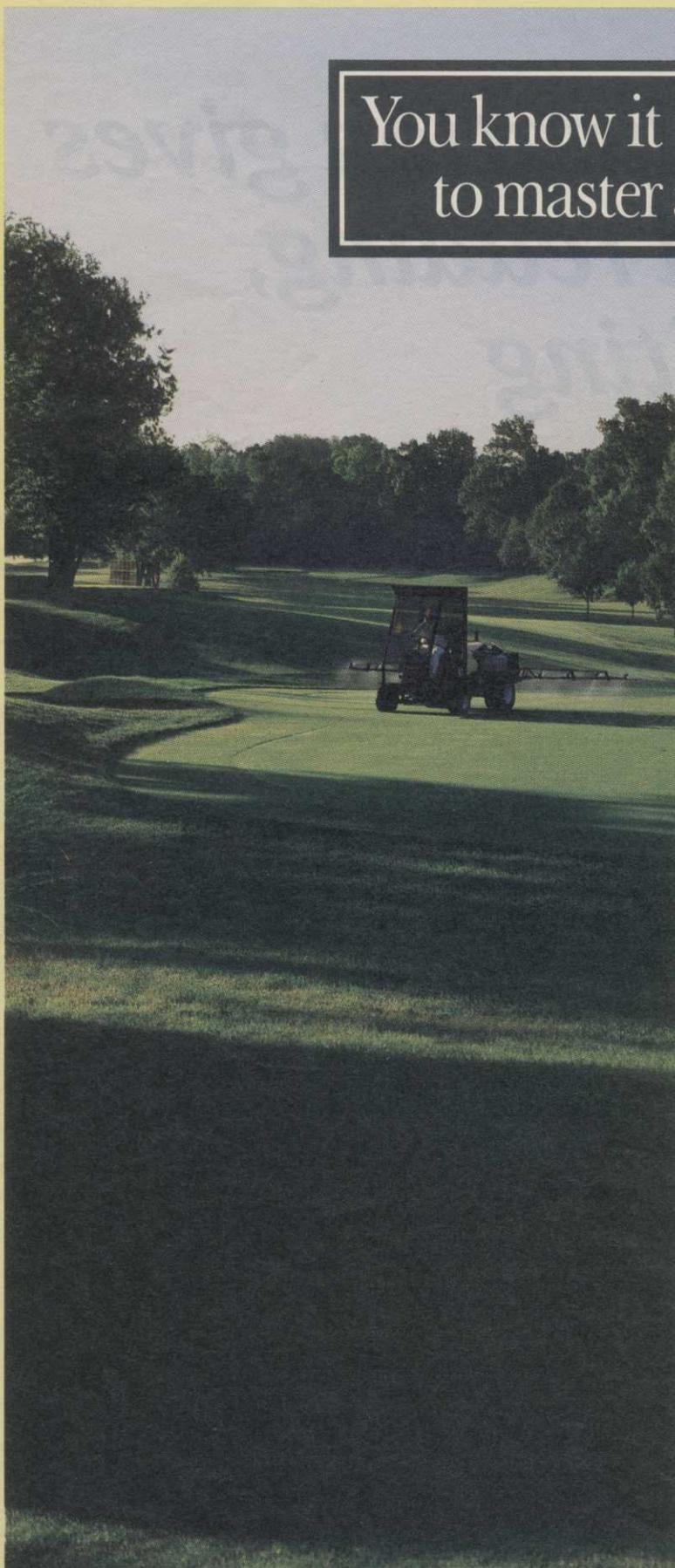
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PGA Seniors Championship
April 14-17, NBC & USA

A native of Columbus, Ohio, Frank Kyncor has spent his entire superintendent's career in the state of Florida. After graduating from Michigan State's turf program in 1986, he worked at Jacaranda West Country Club in Venice. He then accepted the head superintendent's job at Innisbrook's Copperhead Course, where he played host to the J.C. Penney Classic. From there he moved to St. Andrew's in Boca Raton, before accepting responsibility for PGA National's five golf courses. He had been on the job for exactly nine days when we called in early March.



Frank Kyncor

THINGS TO LOOK FOR:

Though new on the job, Kyncor said tournament preparation in Florida boils down to one thing:

"Basically, the major challenge at any Florida club during this time of year is trying to balance the transition from over-seeding.

"We over-seeded with Cobra bent and, at the moment, all the greens are doing well.

"But to hone them in for the tournament itself, we have to be extremely aware of the rain and colder temperatures. You have to try and forecast what Mother Nature will do — and you're not always right."

MADE-FOR-TV PREPARATIONS:

"We're triplexing fairways and hand-mowing tees. We're burning in all the mow lines [four to six weeks prior to the tournament] to achieve a striping effect. We're also hand-mowing all the approaches to burn smaller lines to contrast with the triplex lines.

"The special bed work and annual work are already out there. We'll just spruce them up."

MARK ESODA
Atlanta Country Club
Marietta, Ga.
Bellsouth Classic
May 5-8, CBS

This will be the fifth PGA Tour event Mark Esoda has hosted since arriving at Atlanta Country Club in January 1990 — a far cry from crewing summers at Stone Harbor Golf Club on the Jersey Shore, where he grew up. Has the Bellsouth become old hat? "No, it's never the same," he said. "The weather is the big problem. It's so hard for Bermudagrass to get up this time of year. It's always a crap shoot."

THINGS TO LOOK FOR: There have been so many changes at Atlanta CC over the past 12, it nearly qualifies as a new venue:

"We regraded a bank on the right side of 13 green," Esoda explained. "The 14th tee has been expanded. And the 15th tee has been expanded and landscaped with a lot of nice rock work."

The 16th tee offers the most dramatic changes, especially the rock work by Esoda and his crew, who also quadrupled the tee size there. "It was so small, they couldn't get four days of tee placements on it," he said.

"Also, on the back of 16 green, there was a very penal hollow — but we raised it a foot

and made it two separate hollows, to improve drainage. We should get some positive comments from players on that."

MADE-FOR-TV PREPARATIONS: "We don't have enough grass to be doing any striping," laughed Esoda. "Our mowing patterns have to be set the fall prior or we won't have any definition at all. We don't have much to begin with, so what little we have we try to keep."

He also admitted to a little cheating: "We do about an acre and a half of painting, which I defy anyone to find. We paint only where we need to — for TV reasons."

DAVID GARDNER

Eagle's Landing Golf Club
Stockbridge, Ga.
Atlanta Women's Championship
April 15-17, No TV

David Gardner was born and raised in Mansfield, Pa., exactly 100 miles from State College. Can you guess where he went to college? Yes, Gardner graduated from Penn State in 1986 and took an assistant's job at Port Armour GC in Greensboro, Ga. His first head job was Golden Eagle Golf Club in Tallahassee, Fla.

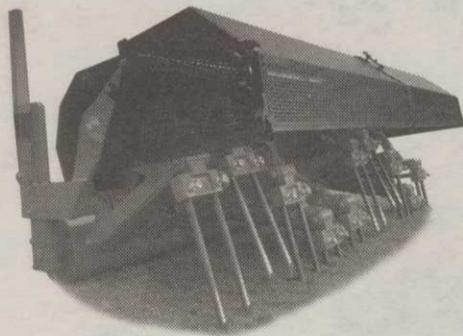
When the owner opened Eagle's Landing in 1990, Gardner assumed responsibility for both courses. He continued this double duty until a few months ago, when the owner finally sold the Florida track: "Thank God," said Gardner. This will be his third Atlanta Women's Championship, and TV rights have yet to be secured.

THINGS TO LOOK FOR: "At this time of year, it couldn't be easier for us," Gardner explained.

"The golf course is still trying to come out of dormancy and there really isn't much going on — no height of cuts to establish or anything like that. We just try to get the greens to consistent speeds and get the bunkers consistent."

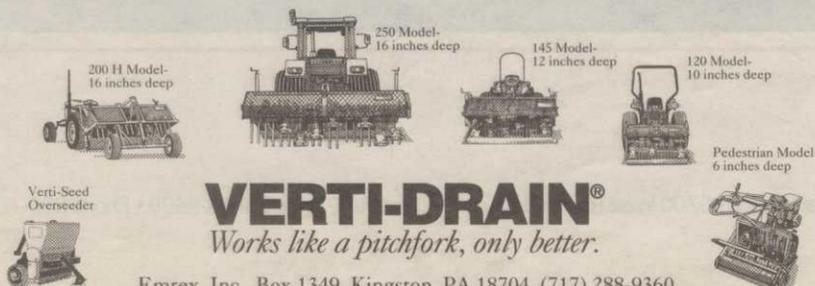
MADE-FOR-TV PREPARATIONS: With broadcast coverage undecided until mid-March, Gardner wasn't worried so much about cosmetics. Besides, he spent two years interning at Augusta National, where "the look" was paramount.

"When we had TV the first year [at Eagle's Landing], we did a little landscaping around the leader board and clubhouse — bringing in potted plants and mulching around them; paying special attention to divots, making sure they're filled. But nothing special. Striping looks great on TV but it doesn't affect playability. And you need a degree in geometry to go out there and make it look right."



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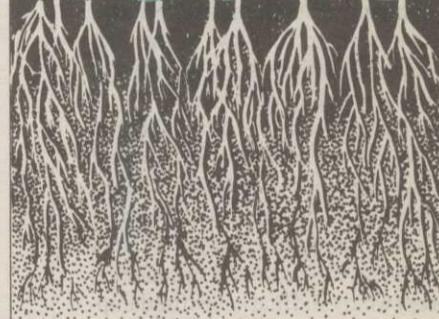
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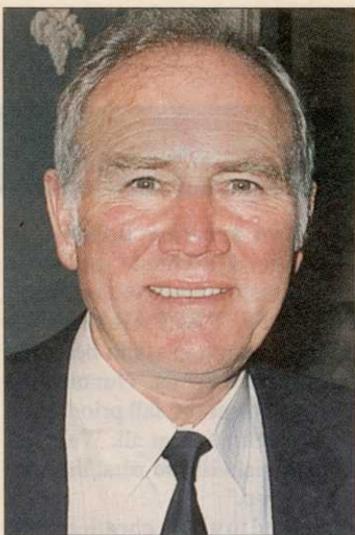
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St. Andrews' Walter Woods

Walter Woods

Continued from page 13

during winter and short ones in summer. We try to get out at first light so we can get in front of the players and have everything done on the first few holes before they tee off.

GCN: What type of grasses were originally planted at St. Andrews and what types currently exist?

Woods: Many years ago St. Andrews was almost completely fescue. Around the edges you find the sea grasses to prevent erosion. Over the years, with the many feet tramping around, the bentgrasses have worked in. Now in the fairways you'll find large colonies of fescues and bentgrasses.

The greens are more difficult because we cut them so low and maintain them more. We try to keep them in fescue and bent because that's traditional. They are links grasses. We can do that because it's very windy and that keeps the dampness off them. Sometimes we aren't allowed to water so that keeps them dry, too. The drier the conditions, the better your opportunity to keep fescue and bent. A combination of the two is best.

Poa annua is our biggest enemy. In the winter we aerate, spike and slit. But we don't do as much hollow coring as Americans do. We slit and maybe solid tine.

In the summer we hardly touch it at all. We don't irrigate for the sake of irrigating or keeping the grass green. We irrigate enough to just keep the grass alive. I've got wall-to-wall irrigation for all six courses. But we try to maintain the grass in the traditional way as much as possible.

GCN: How many maintenance people do you have for the six courses?

Woods: When I first arrived we had seven on the Old Course and six on the others. Things have improved now that we play through the winter. We try to keep those numbers about the same through the winter, but increase dramatically in summer when the work is needed. We have people picking up litter, filling ball washers and filling divots. We hire gardeners. We're becoming more Americanized regarding labor. We want people to come here and enjoy their round. We get things tidy, especially around the tees with new markers, new boxes, new flags.

GCN: What is your annual maintenance budget?

Woods: I can't break it down per course. We put all six together. Our fertilizer budget is low. But this year's machinery budget was high, about £150,000 [\$225,000]. Our total budget is about £1,000,000 [\$1.5 million].

GCN: How much do you spend on capital improvements yearly?

Woods: With the amount of ground we have and the cutting we do, you have to have the top machinery. We buy a lot of American equipment. The maintenance buildings don't look like much, but the equipment inside is the best. What we plan to do over the next two years is build new maintenance and

satellite sheds. When I arrived in 1974, the buildings were more than adequate. Now they are far too small.

GCN: When will you start preparing the Old Course for the 1995 British Open?

Woods: This will be my third Open Championship. It would be the highlight of any greenkeeper's career to even do one. We need to have things perfect for the Open, although not perfect in the sense of Augusta National. That's the closest thing to perfect I've ever known. I've got to make certain this is seen as a links-type golf course. We've

already started preparing. We're doing bunkers now. This summer we'll dry the course out. Next year we'll finish the bunkers. We'll do all the aerating this year because we won't be able to a year from now. Next year I'll just cross my fingers and hope God is looking after me.

GCN: The next Open at St. Andrews is scheduled for the year 2000. Will you be here?

Woods: Probably not. I'm 59 and I'm planning to retire in the next few years. The 2000 Championship would be a good way for the new greenkeeper to get his start. I'll probably come down and help with

that one. But I have a lot of memories about St. Andrews and I'll probably put them in a book.

GCN: Where will your successor come from?

Woods: I think there are qualified people here who could do the job. But I suspect we'll advertise outside, too, and see what comes in.

GCN: Do you have any words of wisdom for our American reader?

Woods: If I were a young American superintendent, I would support your national association, get involved with the educational programs and take an interest in how the association runs. Get involved as I have with our association here.

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for lack of a better word, Hell. They're scorched, zoysiagrasses to improved perennial ryegrasses.
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Danneberg urges supers to stick with IPM strategies

Continued from page 13

longer control with your fungicide, and you will use it less. Vice versa. If you have bad cultural practices you will spray a lot and play catch-up. Sound practices will pay dividends over the years," he said.

NICHOLS ON RELATIONSHIPS

Harking back to the days before the shakeup at Golf Course Superintendents Association of America (GCSAA) headquarters in

Lawrence, Kan., Immediate Past President Randy Nichols said then-president of the U.S. Golf Association Stuart Bloch came within inches of being nose-to-nose of Nichols and said, "Our [USGA and GCSAA] relationship stinks."

That relationship, Nichols said, "has tremendously improved."

The relationship with the PGA "had been non-existent," he added. "Now we have a dialogue and are exploring

projects we can do together."

KYLE EVANS' TOP 10

Borrowing a page from the David Letterman Show, Kyle Evans of Waterville (Maine) Country Club presented his list of Top 10 Reasons Why It's Great To Be a Golf Course Superintendent:

10) We're the only ones who love rainy days in July and August.

9) We love a great mowing pattern... The perfect stripe is a

great thrill.

8) You don't have to buy any golf balls.

7) You get to yell at people and it's OK when people are doing something stupid. Say one of your guys decides a spiral mowing pattern's good for No. 12. I've seen it happen... Say the governor's playing your golf course and he gets that cart a little too close to the green. It's OK for us to go by and bark at him: "Get that cart out of there."

6) You get to set the course up for our own games, or make it rough for someone you don't like.

5) You get a lot of free hats.

4) You get to know who all the cheaters are. They don't see the maintenance crew when they move their ball out of a hole.

3) You can always use the weather as an excuse. "Hey, Kyle, the greens stink." "Well, it's hot."

2) Freedom of cart cruising. There's nothing better than driving around in a golf car. If things are good, you give them [golfers] the Rose Bowl wave. If things are bad, they can't find you.

1) You have the ability to ruin people's days. They get to the first tee and they see a "Frost Delay" sign or you're aerifying today. Their day's ruined. Let's face it, sometimes it feels good to really tick them off.

BENT & BERMUDA: OUT OF SYNC

Pierre Landry, superintendent of grounds at Foxboro (Mass.) Stadium, said they are trying to grow Bermudagrass at The Meadowlands outside New York City in May, in preparation for World Cup soccer games. "Good luck," he joked.

Randy Nichols, past president of the Golf Course Superintendents Association of America (GCSAA) and a superintendent in Dunwoody, Ga., responded: "You ought to try growing bentgrass in Atlanta in August."

ON THE MOVE

Gunn moves on to Stockbridge GC

DALTON, Mass. — **Mike Gunn**, former assistant superintendent at Stockbridge Golf Club in Stockbridge, Mass., has taken over as head superintendent at the Wahconah Country Club here.

Stockbridge Golf Club is where Robert Tyre Jones played his last recorded round on Aug. 15, 1948. Inscribed on the scorecard upon completion of the round: "This was my last effort. I'm sorry it wasn't a better one. Bob Jones."

IRVING, Texas — **Scott E. Miller** has been named director of golf course operations at the Four Seasons Resort and Club here.

Miller, who had been head superintendent at Ventana Canyon Golf and Racquet Club in Tucson, Ariz., will oversee the Four Seasons 36-hole golf facility, which includes the private Cottonwood Valley course and the Tournament Player Club, site of the Byron Nelson Classic.

Robert Murrow Jr. is the new superintendent at Augusta Country Club in Kansas.

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DR. KROSS RESPONDS TO HARVEY

Dear Mr. Harvey:

Last evening I received a telephone call from my brother-in-law, a farmer in western Iowa. He heard your radio report this week describing our mortality study of golf course superintendents. He asked me how did our study determine that pesticides were killing birds and humans on golf courses. I knew something was wrong, so I obtained a transcript of your commentary (see GCN, Feb. '94, page 13).

Your commentary is inaccurate and misleading with respect to our study. Our study did not collect any data about pesticides and birds. Moreover, as clearly stated in our press release (copy enclosed), our statistical mortality study was not capable of supporting or refuting a cause-and-effect relationship between pesticides and cancer. Indeed, my recommendations about smoking cessation and minimizing pesticide exposures are prudent public

health strategies for golf course superintendents and the general public.

Mr. Harvey, I am very concerned about your misrepresentation of our study. The public does need to be informed about important environmental and occupational health issues. The media are important partners in discriminating accurate results of research studies. I request that you broadcast a corrected version of your commentary about our study. Thank you.

Burton C. Kross, PhD, PE
Principal Investigator

Golf Course Superintendents Association of
America Mortality Study
Associate Professor, University of Iowa

Ed. The above letter was reprinted with the author's permission. Dr. Kross reports receiving no response from Harvey, who has never returned a call to Golf Course News, either.

Old friend Paul Harvey continues to take pot shots at the turf industry, then hide away in his Chicago-land bunker. Following his Feb. 8 attack, the master of oversimplification has not responded — by phone or post — to *Golf Course News*, RISE, mortality study author Dr. Burton Kross, or the myriad superintendents who've objected to his war of disinformation. Two letters — as yet unanswered — appear on either side, proving that intelligent dialogues can be very one-sided.

RISE CHIEF JAMES TAKES HARVEY TO TASK ... AGAIN

Dear Mr. Harvey:

There you go again!

In your Feb. 8 broadcast you again make quantum-leap assumptions regarding health and pest control on the nation's golf courses.

Shame for using your popular program to raise unwarranted fears with erroneous and unsupported comments. Specifically, in this instance:

1. "... a study commissioned by [Golf Course Superintendents Association of America] is reporting that not only are golf course pesticides killing the birds, but they're killing golf course superintendents, also." Paul Harvey News, Feb. 8, 1994.

- The GCSAA-commissioned study by a University of Iowa Medical Center research team, headed by Dr. Burton Kross, had nothing to do with deaths of birds — nor did it find that pesticides are "killing golf course superintendents". Those are your words and your conclusions, not the researchers.

- The study, as noted both by Dr. Kross and GCSAA, did not draw any cause-and-effect relationships.

- As described by both, the study was a preliminary statistical summary of 618 golf superintendent death certificates across the entire nation over a 22-year period, and (quoting Dr. Kross) "cannot be interpreted to mean that golfers are at risk."

- The statistical summary showed higher-than-normal deaths due to lung and brain cancers, both related to extended years of cigarette and cigar smoking. Other cancers — pancreatic, large intestine, prostate, non-Hodgkins lymphoma — also were noted as higher than that of the average population. A number of specialists, such as Dr. Anthony B. Miller, preventive medicine, University of Toronto, note that many other cancers, such as stomach, kidney, bladder and pancreas, have been directly linked to smoking, as well. Additionally, two recent reports in *The Journal of the National Cancer Institute* list smoking as an important factor in colon cancer.

- As noted in our enclosed statement, the specialty pesticide industry welcomes further research into any human health concerns. What we can't welcome — are efforts to elevate highly preliminary, unproven research into speculative assumptions that raise unwarranted fears among golfers — or any segment of our population.

Allen James
Executive Director
RISE (Responsible Industry
for a Sound Environment)

Ed. The above letter was reprinted with the author's permission. James has yet to hear back from Harvey.

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BECAUSE NO PRE IS PERFECT.



Blais comment

Continued from page 11

been linked to cancer.

• *Sunshine.* The opportunity to be out in it is the reason many got into the superintendent field. Did it ever occur to you that what your mother sent you outdoors to enjoy could ultimately kill you? Of course it didn't occur to her — and it probably didn't to you when you chose a career — that those ultraviolet rays might cut your life short. But *sunlight* has been linked to cancer.

• *Gasoline and asbestos.* How many superintendents have gas-powered vehicles in their maintenance fleet? How many work out of older maintenance buildings where the asbestos-wrapped pipes were recently sealed or removed? They have been sealed or removed, haven't they? And those funny, black rubber springs they have over the service station gasoline pumps to prevent fumes from escaping. You have got those on your pumps, too. Right? Because, as we all know, *gasoline* fumes and *asbestos* have been linked to cancer.

The point here is not to downplay the potential risks posed by chemicals. There are a lot of things at play and pesticides may be among them. Chemical manufacturers and GCSAA have been preaching for years that the best way to minimize any danger is through careful application and using recommended protective measures. *You* have control over whether you and your staff take those precautions.

That is the point.

You have control over many risk factors that threaten your life.

The stress getting to you? Spend more time with your family and a little less at work. Take a stress-reduction workshop. Exercise.

Still smoking? Quit, for God sakes. Hypnotism, charcoal filters, ear patches, cold turkey. Just do it.

The love handles getting too big? Go for the salad instead of the fries. Join Weight Watchers. Take a nightly walk around the neighborhood with your wife and kids. Re-take up golf.

Lucky enough to be spending more time on the course than in the office? Are you wearing a wide-brimmed hat, long-sleeved shirt and sunscreen when you're out there?

Pesticides *may be* a cancer risk. That's why associations, chemical companies and the government spend billions of dollars on medical research each year.

But you have control over much of the danger they may present, just as you do over other risk factors. So get a handle on them. You owe it to yourself, your family and the golf industry.

In that order.

Phillips commentary

Continued from page 10

decade, making the U.S. golf course stock 75 percent public-access.

Why? Well, the private golf course stock is declining as more financially troubled clubs go public or semi-private. Private clubs have also been hammered by the crackdown on dues deductibility and the diminished ability to write off business meals.

And, as noted above, fewer projects are getting financed. Of the 671 courses under construction, only 109 are private — and 56 of those are mere expansions of existing facilities.

One last between-the-lines observation, harking back to what I mentioned about overbuilding. Much to the chagrin of National Golf Foundation Vice President Rick Norton, developers continue to build golf courses in already saturated metropolitan areas, making it harder for *everyone* to make a profit.

Consequently, some daily-fee courses aren't making the

money they and their creditors had anticipated.

The result? Bankruptcies, fire sales and general gettin' while the gettin's good.

There to eagerly snap up the scraps is golf's growing management industry, which can't believe its good fortune. As more golf courses open and fewer owners take the time to research location and market niche, more management firms are picking up salvageable properties for a song.

Why develop your own line of courses when folks will do it for you?

Management companies are booming, in part because they know how to run golf courses efficiently, using economies of scale afforded by their multiple course holdings. But they're growing so rapidly because they're preying — quite legally, mind you — on the failed efforts of individual developers too naive to compete.

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CIRCLE #125

Leslie comment

Continued from page 10

nesses, or something: Golf courses contribute \$5.4 billion to the economy directly and account for another \$12 billion in indirect sales and household income, according to figures from way back in 1989. Operations of golf courses produce \$17.5 billion in business sales.

• *Prepare to feel more charitable:* The PGA Tour has raised hundreds of millions of dollars for charities. In 1993 alone, the total was \$22,752,137. The LPGA and Senior Tours also raise millions. And this does not include the

thousands of local charity tournaments held each year. You AHA!sdid support those in the Midwest left homeless by the floods last year, right?

• *Close 'em or pay for 'em yourselves:* Communities with recreation programs supported largely by profits from municipal golf courses would have to find other sources. We know an AHA! would be right there to help.

• *Moms, or Dads, return home:* Military courses subsidize child care at the bases. But parents could pay up, or stay home.

• *Find another sucker:* You know about all that effluent now

being used on golf courses? Find another receptacle. How about AHA!'s backyards?

• *Prepare to die:* It's interesting to note that if penicillin were introduced today it would not be allowed. It killed more than half the test rats. Huge amounts of time and money are spent on pesticides and other products before they are allowed in the marketplace.

Dr. Bruce Ames of University of California-Berkeley says when pesticides are not used, plants produce thousands of times more carcinogens.

Dr. Stanley H. Schuman, medical director of the Agromedicine

Program at Medical University of South Carolina, reported in 1990 that an approximate 30 percent reduction in stomach cancer in the last 30 years is attributable to the use of pesticides in food production.

Ironically, stress and worry cause cancer. Could it be that the AHA!'s of the world, who have perpetrated a scare on us all, have caused more cancer than all the pesticides?

• You really want to discontinue pesticides? One-third to one-half of Americans would go hungry today if no pesticides were used. To "organically" grow the same amount of food as we do today with pesticides, we'd need

another 483 million acres.

The number of people fed by a single farmer has increased from six people at the turn of the century to nearly 100 today. And since the 1950s the amount of heavy equipment, seed, fertilizers and pesticides required to feed one person has tended downward. Although the total amount of pesticides used in U.S. agriculture increased by 100 percent between 1965 and 1982, it declined by nearly 20 percent between 1982 and 1990. Changes in farming practices have also resulted in a 90-percent reduction in farmland erosion on typical soils and a 50- to 60-percent reduction on highly erodible soils. (USDA Soil and Water Conservation Society, 1992)

It is estimated that if it hadn't been for these advances in safe conservation practices, "we'd already have plowed under [nearly] one million square miles of wildlife habitat for food production ... since 1940." (Dennis Avery, fellow, Hudson Institute, Hudson Opinion, December 1991)

The fewer pesticides you use, the more land you will have to take out of retirement. And, sorry, you can't grow bananas in Maine.

• *Filter your own water:* Managed turfgrass filters water far better than unmanaged land. Plus, golf courses are graded and developed to reduce runoff—and therefore erosion. Once the land degrades, prepare to lose a tremendous amount of infiltration and biological activity that comes from maintaining fine turf. This holds true for home lawns as well.

• *Hope you're cold-blooded—in a bodily function sense of the term:* Turfgrass acts as a marvelous air conditioner. Let all those acres of turfgrass grow over with bushes and whatnot and prepare for those hot summer days to get hotter.

• *Get out your hammer and nails:* Many types of birds thrive on golf courses. But, of course you can find them new homes.

• *Oh, and about the value of houses neighboring golf courses?* Neighbors' homes are valued at 30 to 50 percent more because of the courses. Mr. and Ms. AHA!, when the courses are closed, just tell the ex-neighbors' lawyers to contact your lawyers.

We could go on and on here. But even AHA!'s hopefully get the point. Then, again, some may not. Some may be predisposed like National Wildlife Federation President Jay Hair, who reportedly proclaimed: "This big, booming business, agriculture, is also killing the world. I mean that literally."

Some may not flinch, like the Sierra Club, which accuses the Farm Bureau and other groups of conducting a "massive and brutally destructive anti-environmental onslaught." (AgVenture of the Wisconsin Farm Bureau, March-April 1993)

But others may turn an ear and spin some of this information through their minds. If you know a AHA! pass along this commentary. Then let me know his response. Should be interesting.

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W.Va. researchers test 'promising herbicides'

From Staff Reports

Crabgrass, white clover, Virginia buttonweed and other weeds are increasingly under attack by new chemicals, and Virginia Tech scientists are evaluating the war.

Reviewing tests done on "promising herbicides for the '90s," Virginia Tech Dr. S. Wayne Bingham gave mostly good marks to prodiamine (Barricade), clopyralid (Transline), clopyralid plus triclopyr (Confront), isoxaben (Gallery), fenoxaprop (Acclaim), and the only pre- and post-emergent herbicide in the group — dithiopyr (Dimension).

Bingham, speaking at the Virginia Turfgrass and Landscape Conference in January, said testing on Virginia buttonweed compared new broadleaf herbicides and the best-known standards — 2,4-D plus dichlorprop and 2,4-D plus dicamba.

While the 2,4-D mixtures provided fair to good control for six to 12 weeks, the weed "appears to make a comeback from

underground rhizomes and seed," Bingham said.

Similar control was gained by applying clopyralid at high rates or repeated treatments, and clopyralid plus triclopyr. Clopyralid alone requires a higher rate than needed for some other common broadleaf herbicides, he said.

"Perennial weeds in general appeared to need the high rates. Clopyralid appeared to inhibit new bud regrowth on perennial weeds for slightly longer periods than for other broadleaf herbicides. This appeared to happen for common dandelion, Virginia buttonweed and Canada thistle."

Other Virginia Tech findings:

- The pre-emergent isoxaben: Fall applications "were excellent for weeds emerging from seed, including white clover." Knotweed germinates too early in the spring for spring treatment and responds well to fall treatment. Spring applications appear to be needed for summer annuals like spotted spurge and yellow woodsorrel that emerge from May to July.

- The first pre- and post-emergent herbicide, dithiopyr: Provided pre-emergent control of crabgrass in several species of turfgrass. Granular formulations required less active ingredient for similar control.

Applied before crabgrass tillering, post-emergent control was also consistent. "Variable results were encountered after crabgrass tillering was evident; and results were poor, sometimes when applied just two weeks late." Granular formulations were less effective for post-emergent control.

- Fenoxaprop was very effective for seedling crabgrass control. "However, in some instances, more crabgrass emerges after early-season treatments. After crabgrass began to tiller, fenoxaprop was still quite effective (sometimes requiring slightly higher rates) while dithiopyr gave less-than-desirable crabgrass control. Early post-emergence dithiopyr treatments did provide pre-emergence crabgrass control for the remainder of the season.



Dreaded crabgrass

- Prodiamine was very effective for pre-emergent crabgrass control, mixed at about .65 pound ai/A. Lower rates were less consistent from time to time. Goosegrass control appeared acceptable with prodiamine at .65 to .75 applications. Pre-emergent poa annua control was also acceptable.

"The residual effects from prodiamine provide complete season-long control. It will last six months at levels required for crabgrass control. At the normal label rate, areas will require four months or more before reseeding are successful," Bingham reported.

WAITING FOR EPA SIGN-OFF

Corn byproduct is emerging on market as a pre-emergent herbicide

By HAL PHILLIPS

A pelletized, corn byproduct that would be labeled as a pre-emergent herbicide might be on the market late this spring, depending when the federal Environmental Protection Agency signs off.

Amazing (get it?) Lawn will be marketed by Gardens Alive Corp. of Lawrenceburg, Ind.

Testing conducted at Iowa State University has shown corn gluten meal to effectively inhibit root formation in crabgrass, nightshade, buckhorn plantain, dandelions, purslane and even annual bluegrass, according to Dr. Nick Christians, a professor of turfgrass science in ISU's Department of Horticulture.

The unique powers of the corn meal were arrived at seven years ago, quite by accident.

"We were actually doing a totally unrelated project where cornmeal was being used to grow a fungal organism," said Christians. "The object was to establish a root pythium in the soil. We were using the corn meal as a control, but we saw inhibition of seedling establishment where we used cornmeal."

"Its activity is to inhibit root formation at the time of germination. So it's pre-emerge only. Once the weed has emerged, the corn meal actually acts as a natural fertilizer."

A byproduct of the wet-milling process, corn gluten meal is a 60 percent corn protein material approximately 10 nitrogen by weight, Christians explained. Sold primarily as a feed material for cattle, corn gluten meal is produced as a fine yellow powder, but can be pelletized for easier application.

Such is the case with the forthcoming pre-emergent herbicide, marketed by Gardens Alive.

According to Marketing Director Larry Kavanagh, Gardens Alive will distribute the product "as soon as the EPA lets us. It's in the hands of fate, but we do think it should happen sometime in the next couple of months," he said.

"In a dream world, we would get EPA approval in time for spring application. But it doesn't look like that will happen."

Kavanagh said crabgrass germinates around the same time forsythia blooms. So when the forsythia are about to bust out, the time is right to apply the corn gluten meal.

"It has a bit of a nitrogen kick, so you don't want to fertilize at the same time you're applying the corn meal," he warned.

"We tested it out on my lawn last year and it suppressed the crabgrass almost completely. My wife wasn't too happy with our striped lawn. But I assured her it was for the good of the company."

New-found bacteria hope for brown patch

From staff reports

CARBONDALE, Ill. — Researchers at Southern Illinois University have identified a strain of bacteria that completely stops the growth of virulent strains of brown patch in the petri dish. Now they must advance from the laboratory to the real world, where brown patch is the most damaging disease in tall fescue.

Dr. Kenneth L. Diesburg of Southern Illinois said scientists will attempt to "mass-culture" the bacteria, *Pseudomonas* fluorescence, and determine if it inhibits brown patch when applied to a tall fescue turf environment.

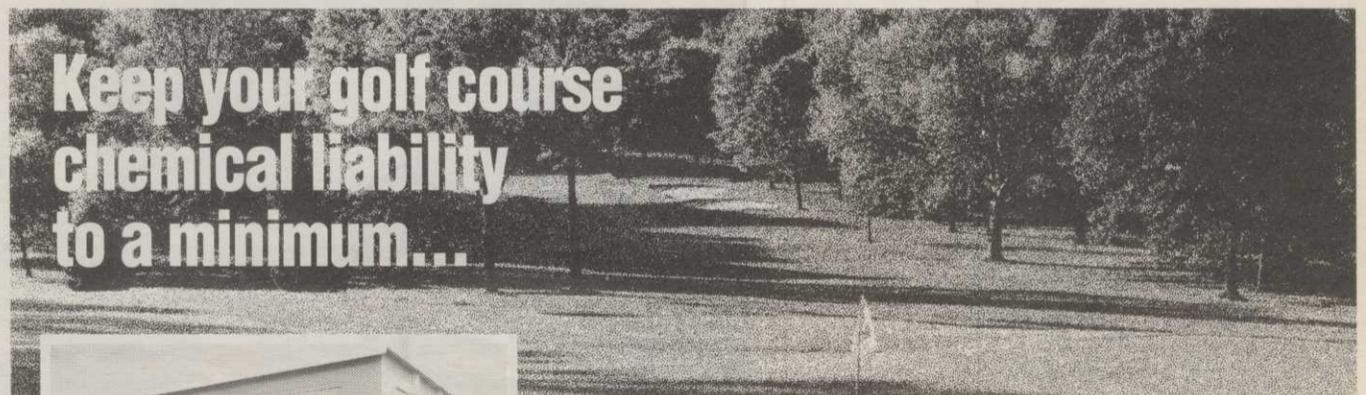
Reporting the discovery at the Virginia Turfgrass and Landscape Conference in

January, Diesburg said chemicals currently provide the best control of brown patch.

The first option, he said, is to grow healthy turfgrass, which alone inhibits invasion of pathogens into plant tissues.

"A second option is to develop a biological control of the organism that causes the disease." Thus the search for effective bacteria.

"It is difficult to say at this time whether biological controls will completely replace synthetic controls of brown patch in tall fescue," Diesburg reported. "It is highly probable that biological controls will reduce the need and use of fungicides."



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Mountains



ADS TO AID RMGCSA

The Rocky Mountain Golf Course Superintendents Association (RMGCSA) has established a member advertising program with Activity Directories International (ADI) for its upcoming 1994 Yellow Pages of Golf.

All RMGCSA members be offered "a 40-percent advertising incentive fee," according to President Monte Stevenson of Indian Peaks Golf Club in Lafayette, Colo.

"Your advertising (in the book) will not only give your company or golf course an international exposure, there is an incentive compensation to RMGCSA to help us with other services," Stevenson wrote members.

Interested people may contact Tom Booher at ADI, 8122 South Park Lane, Suite 200, Littleton, Colo. 80120; telephone 303-730-3030 or 800-864-2754.

COULOMBE ATTAINS CERTIFICATION

Richard Coulombe of Aspen (Colo.) Championship Golf Course has been designated a certified golf course superintendent. Aspen's superintendent the past 13 years, Coulombe is assisting in the implementation of a master plan for improvements to the 18-hole municipal track. He has been a member of the Rocky Mountain GCSA for 16 years.

CACTUS AND PINE SCHOLARSHIP

Cactus and Pine Golf Course Superintendents Association has awarded a \$500 scholarship to Danny Fielder, a final-semester senior in turfgrass management at the University of Arizona. A dean's list student and worker at the university's Turfgrass Research Facility, Fielder intends to become an assistant superintendent. His father, Bill, is superintendent at Spanish Trail and Angel Park golf clubs.

South Central



WOOD REIGNS IN SOUTH TEXAS

Michael Wood of South Shore Harbour Country Club in League City has been elected president of South Texas GCSA for 1994.

Woods' fellow officers are Vice

President Don Cole of Greatwood Golf Club in Sugarland and Secretary/Treasurer Mike Burris of Bay Oaks Country Club in Clear Lake.

Newly elected to the board of directors were Randy Broyles of Westwood Country Club in Houston, Mike Link of The Woodlands in Conroe, Ric Kehres of River Oaks Country Club in Houston and affiliate representative Bill Wade, representing Goldwaithes' of Texas in Houston.

Other board members are John Walker of Weston Lakes Country Club in Fulshear, John Freeman of Deerwood Golf Club in

Kingwood and Doug Browne of Stephen F. Austin Golf Club in San Felipe. Immediate past president is Keith Ihms of Pine Forest Country Club in Houston.

Broyles was crowned long drive champion for 1993 prior to the association's annual meeting at Lakeside Country Club. The competition was sponsored each month by Z Water Works, with the six winners from previous meetings having a drive-off prior to the annual business meeting. Ihms also announced that the membership of Lakeside CC requested all proceeds from the

meeting be donated to the South Texas GCSA scholarship fund.

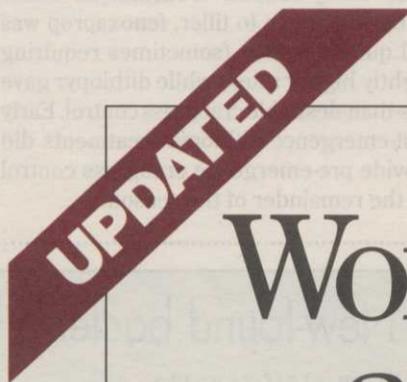
PERMITS NECESSARY FOR HEAT PUMPS AND WELLS

ROLLA, Mo. — People installing heat pump systems or monitoring wells, or acting as the primary or major contractor in these instances, need a permit from the Department of Natural Resources (DNR).

DNR and the Missouri Well Installation Board, under the authority of Section 256.600 through 256.640 of the Missouri Revised Statutes, has started imple-

mentation of new well construction rules. These rules not only set permitting requirements, but also set minimum standards for construction of monitoring wells and heat pump systems. The rules also will affect the current minimum construction standards for private water wells and pump installations.

People interested in obtaining permits or more information on the rules should contact Beth Marsala, Missouri Department of Natural Resources, Division of Geology and Land Survey, Wellhead Protection Section, P.O. Box 250, Rolla, MO; or phone 314-368-2165.



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Rochester, New York

Gary Dempsey, Golf Course Superintendent
New South Wales Golf Club
Sydney, Australia

Mandel Brockington,
Golf Course Superintendent
Ridgewood Country Club, Waco, Texas

Southeast

BROOKINGS HONORED

RICHMOND, Va. — Brookmeade Sod Farm's Ginger and Louis L. Brooking were individually honored at the 33rd Virginia Turfgrass and Landscape Conference and Trade Show here for their contributions to the Virginia



Turfgrass Council (VTC) and turfgrass industry.

Ginger Brooking was presented the President's Award, while Louis Brooking was given the R.D. Cake Award.

Meanwhile, the VTC Award was presented to Jeff Fleischman of Farmington Country Club for his support of the foundation; and Thomas B. Hutcheson Memorial Scholarships were given to Michelle Frazier, Brian Gooch, Sam Green and Patrick O'Leary.

Mike Johnson and Cale Bigelow were awarded Noram Scholarships, and VTC two-year

agricultural technology program scholarships were given to Robert Townsend, David Vann and Roger Walker. Lifetime memberships were presented to Archie B. Goode and Petey Johnson.

RESEARCH HIGHLIGHTS CONCLAVE

TIFTON, Ga. — A golf tournament at Spring Hill Country Club launches first-day activity of the 48th annual Southeastern Turfgrass Conference here April 11-12. Afternoon highlights are registration and inspection of Experiment Station research plots and a discussion of turf research by

U.S. Golf Association (USGA) and University of Georgia researchers.

Second-day sessions feature an educational program for golf course superintendents, athletic field managers and sod producers.

Speakers include Jim Snow, national director of the USGA Green Section; Drs. Bob Carrow, Gil Landry, Ed Brown, Wayne Hanna, Glenn Burton, Will Hudson and B.J. Johnson of the University of Georgia; Eddie Seagle of ABAC; Ben Copeland of Patten Seed Co.; and Georgia superintendents Tommy Burton and Palmer Maples.

North Central



ELDRIDGE SUPER OF YEAR

The Heart of America Golf Course Superintendents Association has named Jeff Eldridge of Deer Creek Golf Course in Lenexa, Kan., Superintendent of the Year for 1993.

Past President Loren Breedlove presented the award, which was established to honor superintendents who have attained excellence in some facet of the golf industry. Eldridge was cited for his hard work and personal dedication to Deer Creek and the HAGCSA.

LAKE PROTECTION IN KANSAS

The Kansas Department of Health and Environment's Office of Science and Support has produced two brochures concerning lake protection in Kansas.

Available to the public, the brochures address the needs of people interested in water resources, lake association members and local entities that are near lakes.

State and Federal Grant and Cost-share Programs for Lake Protection and Restoration identifies possible sources of funding for projects for public lakes in the state.

The Kansas Department of Health and Environment and Lake Protection in Kansas describes specific programs within KDHE that deal with lake protection and restoration activities.

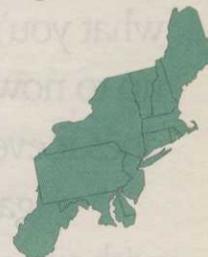
The brochures are available from Cathy Kinder at 913-296-5565.

Northeast

NEW YORK SHOW SATISFIES

ROCHESTER, N.Y. — The New York State Turfgrass Association (NYSTA) and Cornell University reported a record 1,755 attendees for their annual Turf and Grounds Exposition at Rochester Riverside Convention Center.

Cornell student Craig Schleider was presented scholarships from NYSTA and Nor-Am Chemical Co. Other scholarships were given to Andrew Cain of State University of New York (SUNY) Cobleskill, Eric Birkemeier of SUNY Delhi and Christopher Metcalf of Finger Lakes Community College.



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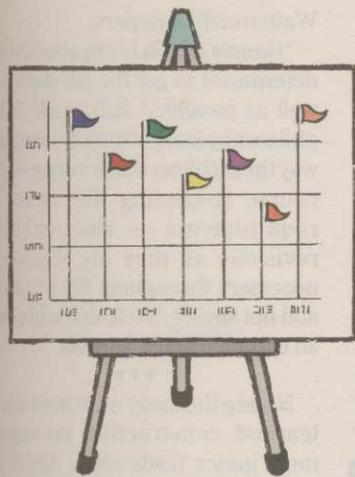
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Note: Algaen-X registration in California is pending. ©1994 The Scotts Company, Marysville, Ohio 43041.

CIRCLE #129

BRIEFS



WATER AT ISSUE WITH ASLA

SAN ANTONIO, Texas — The American Society of Landscape Architects will inaugurate a new annual meeting concept here, Oct. 8-11, when thousands of landscape architects and related professionals will share information and ideas and experiment with the latest technology available to the profession. The meeting's focus will be on water issues.

KENOVA BUSY IN MEXICO

GUADALAJARA, Mexico — Kenova Construction Corp. of West Palm Beach, Fla., has been awarded its second golf course contract in Mexico. The project encompasses 650 acres in the mountains here above Guadalajara City. Kenova built Club de Golf Malinalco outside Mexico City last year. Having been approved as a major U.S. exporter, Kenova also is able to arrange financing for qualified foreign developers through our U.S. bank.

DALY INKS FIRST DESIGN PACT

MYRTLE BEACH, S.C. — John Daly is working with developers here on the design of a Scottish links-style golf course that will open in fall, 1995. The course, is the first golf course project for Daly, who is serving as player-consultant to architect Clyde Johnston. The course is a project a Southpart Golf Group Ltd. Partnership.



John Daly

ARCHITECTS SESSION READIED

SAN FRANCISCO — The impact of wetlands preservation, disabilities regulations and effluent availability on golf course construction will be the focus of the annual American Society of Golf Course Architects conference here, April 16-20. Led by President Jerry Matthews, the conference at the Pan Pacific Hotel will feature Past President Dick Phelps speaking on "Implications of Americans With Disabilities Act Legislation on Design of New and Remodeled Courses"; Dr. Ali Haravandi of the University of California on "The Impact of Effluent Availability on New Course Construction"; and Dr. Mike Josselyn of Wetland Research Associates on "The Impact of New Wetlands Legislation."

GOLF COURSE NEWS



ITS LEGACY IS TRUE ENVIRONMENTALISM

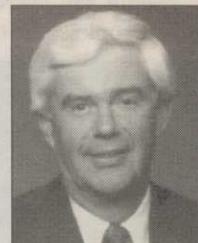
Legacy Ridge, above, shared the 1993 National Environmental Steward Award for Public Golf Courses with Applewood Golf Course, Golden, Colo., whose course superintendent is Ronald L. Conard. Scott Tuggle is superintendent of the 18-hole Legacy Ridge course located in Westminster, Colo., and set to open in August. It was designed by Arthur Hill. Other Environmental Award winners are The Golf Club at Shiloh Falls, Pickwick Dam, Tenn., resort course division; and Tampa Palms Golf & Country Club, Tampa, Fla., private course division.

GCBAAs President Kirchdorfer calls for industry to promote game

By MARK LESLIE

LOUISVILLE, Ky. — Saying that golf course builders "keep taking the game of golf to another level in quality," the new president of the Golf Course Builders Association of America (GCBAAs) has assumed a positive outlook on the association's role in the industry.

"I envision the golf course builders spending time and resources to promote the game," said James J. Kirchdorfer,



Jim Kirchdorfer

president of Irrigation Supply Co. in Louisville, Ky. "We need to be doing things that help our industry, so that there are more courses being built and remodeled and this, of course, brings business to our members."

Kirchdorfer knows of which he speaks. Since starting Irrigation Supply Co. in

Continued on page 45

A treasure found on boundaries of The Badlands

By MARK LESLIE

RAY, N.D. — Saying his property itself is a miracle, superintendent and part-owner-to-be Stan Weeks is anxious for work to begin on Red Mike Golf Resort. So aren't his partners in this "build it and they will come" venture, which sits in the Badlands of North Dakota — between four (such-as-they-are) population centers.

There's major partner Mike Ames, owner of Agri Industries of Williston. Then there are minor partners Stephen Kay, a golf course architect from Bronxville, N.Y., and Marvin Schlauch, a course shaper who works out of New York.



Red Mike was an outlaw, but the hill named for his capture is the setting for what promises to be an exciting golf course.

Continued on page 42

Q & A

D.J. DeVictor on cutting edge of design for the handicapped golfer

An apprentice of architect Arthur Hills and the former director of Fairfield Development Corp.'s Resorts and Golf Development Division, D.J. DeVictor has found himself in the position of pioneer in the design of golf courses for the physically challenged. The 40-year-old Roswell, Ga., architect and partner Peter Langham have been chosen to design Clemson University's new handicap-accessible golf course, even though the Federal Access Board is still drafting guidelines to supplement the Americans With Disabilities Act (ADA). If approved, they are expected to be implemented and enforceable for courses opening in 1995 and beyond.

Golf Course News: What special problems are posed by the demand for accessibility?

D.J. DeVictor: In new golf course construction we don't necessarily see any restrictive criteria. The major issue is cart paths as the accessible route through the golf course. We feel the components that accessible golf will bring out will probably create better courses for everybody, with

very little financial impact.

GCN: You say the regulations will bring about better golf courses. How so?

DJ: They are asking for accessibility to tees, fairways, greens, and into bunkers. It will be much easier for the elderly, youngsters and anybody walking up a slope to a tee box, to just walk out of the cart and onto the tee box. In green design, they're

Continued on page 44



D.J. DeVictor

Wadsworth: A training ground in excellence for aspiring architects

Continued from page 1

training ground for people aspiring to be golf course architects.

The numbers are legion: five former Wadsworth employees own design firms; 11 work for design companies; at least two own construction companies; and others are employed in related fields. At least five architects' sons have worked for Wadsworth and pursued careers in design.

"Some say we're the IBM of golf. People come to work for us,

Editor's note: In this report "Wadsworth" is at once personal and collective — standing for both the boss and his company.

then take what they've learned and start out on their own," said Paul Eldridge, president of Wadsworth.

"It was the most eye-opening experience I ever had," said Schreiner, who now hangs an architect's shingle, belongs to

the American Society of Golf Course Architects (ASGCA), and is doing very well, thank you. "You could take both my college degrees and throw them right out the window. What I learned from Wadsworth has been invaluable.

"Others work at the 'corporate' level. Wadsworth goes beyond dollars and cents," Schreiner said. "He works at the 'spiritual' level — in the sense of 'Do for others what you would expect them to do for you,' regardless of whether it is going to cost more and

You could take both my college degrees and throw them right out the window.

What I learned from Wadsworth has been invaluable.'

— Craig Schreiner

regardless if it is at a higher level."

Architect Art Hills had more than one reason for sending four of his six sons to work for

Wadsworth summers.

"Brent's goal is being absolutely determined to get the job done as well as possible," Hills said. "His philosophy is to get the job done the way the architect wants it done — of course respecting the owner's requirements — and making revisions as they are deemed necessary throughout the project, and not saying, 'Well, that will cost an extra \$5,000 or \$10,000.'"

Noting the many members who learned construction management under Wadsworth, ASGCA Executive Director Paul Fullmer said: "That made the transition into the design field easier for them. They weren't reinventing the model. The model had been established by Wadsworth and accepted in the industry."

Impressions left on then-employees/now-architects by the Wadsworth company have been indelible — first, in how a job should be done physically; second, how it should be approached philosophically.

Physically, Wadsworth taught:

- "Being able to spot opportunities to make a hole better while you're building it. You only get one chance." — Mike Dasher, who worked with Wadsworth from 1973-79 and is now a lead designer for Hills.

- "The information coming in [while at Wadsworth] was unbelievable... Everything I teach now in construction management is a reflection of the exact things I learned at Wadsworth." — Schreiner.

- "As an architect I was always form-driven. You design courses and work out strategy and concepts on paper. But when you go out in the field, there are subtleties that need to be adjusted. Working with Brent gave me confidence in my ability to look at details, make a quick decision to do something, do it once and do it right." — Keith Foster, a six-year employee now president of his own firm in Phoenix, Ariz., and St. Louis.

- "I learned a lot about looking at plans, surveying, 'balancing' dirt, and making grades work... Also, about teamwork. Everybody and everything [at Wadsworth] works as a team. You learn what equipment can and can't do." — Carter Morrish, a four-year employee who is now a designer for father Jay.

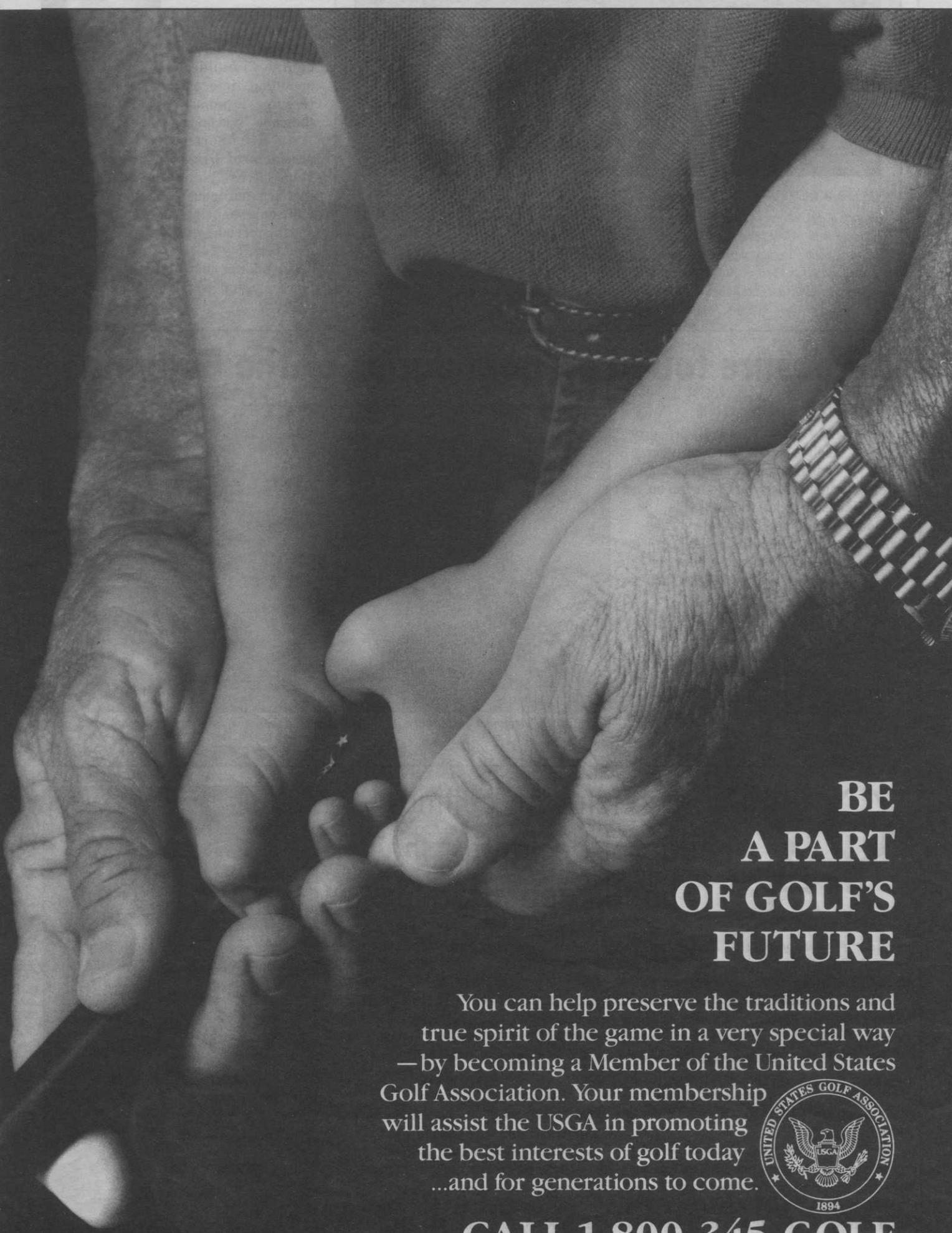
- "You can only do so much with [scale drawings of] one inch equals 50 feet or 100 feet. They really know how to relate to different architects and their styles." — Tim Nugent, who worked for Wadsworth briefly at Desert Highlands and The Boulders projects in Arizona and now is a lead architect for his father Dick.

Philosophically, the Wadsworth effect may run deeper:

- "No doubt, Brent's philosophy has affected me in my life and business. I've always

Continued on next page

GOLF COURSE NEWS



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THE WADSWORTH PHILOSOPHY

Do the job the way you'd want it done for you

By MARK LESLIE

Reflecting on the 16 people who have worked for him and gone on to golf course design, Brent Wadsworth said, "Yes, there are quite a few." But the ultimate question is, What did they expect to learn?

"First, they're trying to learn all the construction practices — all the little details — that go into making a golf course," he said. "Beyond that, they observe and bring up questions, ideas and thoughts relative to the designer's skills and the elements he projects into a course.

"They are constantly looking at those types of things. This is probably what leads them into

the next step — which is working for an architect."

Wadsworth singled out Keith Foster and Craig Schreiner as aspiring architects who "laid it on the line. They said up front that they wanted to some day be designers. They weren't hiding anything. They weren't going to leave without you knowing it. And they were very interested in learning everything they could about our business. You could feel that happening. What they were contributing to was not only our work but their own learning processes. And you could tell that by the way they handled themselves."

Qualities he looks for are "high

integrity and decent moral character," Wadsworth said. "Those things you don't always find out until later. But they surface with those who stay with us.

"We have an opportunity to hire people all over the country simply because we travel. We have a broad spectrum to look at. The ones we end up with are people who are going to further our concepts of good business and who like to work. They remain because of the intense human efforts that they make and we require."

Wadsworth was an architect in
Continued on next page

Would-be architects learn trade with Wadsworth

Continued from previous page

thought, 'Is this the way I should conduct myself? Is this the way Brent would conduct himself?' I value his honesty, integrity and sincerity above anyone else's in the business." — Foster.

• "You're going to get the same product no matter who in the company you work with or where you are. They have an ingrained corporate philosophy: Brent always wants the job to finish with everybody happy. If he has to spend more money that wasn't in the contract, Brent will go the extra mile to get the whole thing turnkeyed. Others might say, 'Here are the keys. You can drive it away. But it's missing a hubcap.'" — Nugent.

• "In the construction business you want to perform at a high-quality level, yet you still have to get the job done and on time and under budget. Blending all that has made Brent successful. If he came out on a job and saw something that would make a product better, he wouldn't rest until it was done." — Dasher.

Dasher even has a list of "Brentisms" gathered during his work for — and now with — Wadsworth:

The right way — Means you always have time to go back and fix something.

Work hard to get lucky — Means you can put yourself into position for big jobs, great opportunities and good fortune by making sure you do your work thoroughly and completely.

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If he came out on a job and saw something that would make a product better, he wouldn't rest until it was done.'

— Mike Dasher

this kind of background," Dasher said. "The wealth of knowledge a young man could get is staggering — first as a trainee and then as superintendent working with a number of architects and difficult projects."

"A lot of what architects lack in field construction experience in terms of schedules, times, drawings, specifications — everything," Schreiner said, adding that with his Wadsworth experience, "Builders can see when they come out on my site that I have

the contractor in mind in addition to the superintendent and the owner. I learned how architecture applies to the construction, especially natural drainage and downtime because of rain."

As for Foster: "I had always considered myself a very detailed person... But Brent and I would look at mounds and he would talk about shaving off 3 inches — and that was over a distance of 200 yards. We'd look at a golf course through a microscope, Brent's eyes."

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CIRCLE #131



When the American Society of Golf Course Architects gave Brent Wadsworth (front, fourth from left) the Donald Ross Award last year, all members who had worked with him posed for a picture. All but a few in the banquet hall joined in.

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CIRCLE #132

The Brent Wadsworth Way: Do unto others...

Continued from previous page

1958 when he was driven into the construction business because he couldn't find enough good builders.

Since then, he has cut a swath from his offices in Florida to those in Illinois, Arizona and Hawaii. But building a reputation for strong work ethic all came naturally to him.

"It comes down to human nature — dealing with something the way you would want it done if you were the client," Wadsworth

said. "If you can apply that, plus the good business practices of life (careful accounting, careful elements of sales and running a very tight ship), you will provide the extra elements that are a value to a customer."

A dissertation he tries to give to each employee is:

"We all serve somebody. Remember, you're not hiring somebody, you're serving them. When you recognize that and put yourself in that mode, it seems you'll perform at a higher level

than others."

His basic work ethic, he said, is "get to the job early in the morning, work late at night and give everything you've got to the work at hand."

Those who succeed are "those who really want to give a good value to people they serve," he said.

Wadsworth pointed to John Cotter, his overall general manager, as exemplifying "all the human basic characteristics of the type of

people who have made our business successful through the years. He was my first guy and he's still there. And everything I am, I feel he has carried forward and projected to other people... Everywhere he goes he is well-respected. He is fair and trustworthy and kind and gentlemanly. If all those things are practiced on a regular basis, those people succeed in life, not only working for somebody but for themselves as well."

A reverse twist to like-father, like-son model

So, where does Brent Wadsworth send his own offspring to work?

"Oh, Eric Wadsworth is a field architect and construction manager for us," said Tim Nugent, who himself worked for the elder Wadsworth.

Wadsworth apprentices

A number of people in the golf industry have apprentices for Wadsworth Golf Construction Co. Here is a list:

INDEPENDENT ARCHITECTS

Keith Foster of Keith Foster and Associates in Phoenix, Ariz.

Rick Jacobson of Rick Jacobson Golf Course Design in Libertyville, Ill.

Paul Loague of Aurora, Ill.

Craig Schreiner of Kansas City, Mo.

George Williams of Williams, Gill & Associates in River Falls, Wis., now in Texas

ARCHITECTS WORKING FOR ARCHITECTURAL FIRMS

Mike Dasher of Arthur Hills & Associates

Tom Johnson of Dennis Griffith and Associates

Jim Slugocki of J. Michael Poellot

Kevin Sutherland of Fazio Golf Course Designers, Inc.

Tom Walker of Gary Player Design

ARCHITECTS' SONS

Tim January, son of Don

Carter Morrish, son of Jay

Tim Nugent, son of Dick

Roger Packard, son of Larry

David Flatt, son of Larry

CONTRACTORS

Paul Clute of Paul Clute & Associates

Joe Niebur of Niebur Golf Construction

Larry Smith of Mid-American Golf Construction

RELATED FIELDS

Jay Knoll, construction consultant in Mexico

Dr. John Hall III, professor and Extension Service representative for Virginia Polytech

FOSTER CHOSEN

MCO Properties, Inc. of Fountain Hills, Ariz., has chosen Keith Foster and Associates to be the architects for an 18-hole championship course. The high desert site called Sunridge Canyon is situated directly east of greater Phoenix overlooking the Verde Valley. Construction is scheduled to begin in June.

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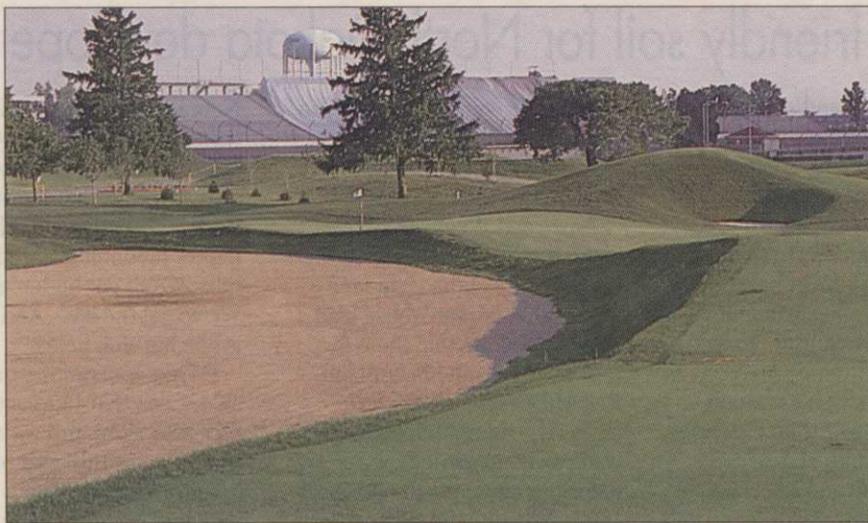
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NEW LOOK, NEW GRASS, NEW NAME

Proving that auto racing and golf do mix, Pete Dye has redesigned the former Indianapolis Speedway Golf Course into a track of another kind. Originally designed in the late 1920s by Bill Diddle, with nine holes inside the oval, Dye has given the layout his special touch, and Speedway president Tony George has given it a new name: Brickyard Crossing. More than 1.5 million cubic yards of earth were moved to sculpt dramatic, rolling terrain and weave the course around Little Eagle Creek. Four holes now lie inside the oval. Mature trees were retained, 650 new trees planted, and marshy areas were set aside for wildlife.

Photo by Ken May/Rolling Greens Photography

Arlington Course to get Coore-Crenshaw touch

HOT SPRINGS, Ark. — The architecture firm of Coore & Crenshaw, Inc. has been selected to restore the Arlington Course at Hot Springs Country Club. The Arlington Course was designed by Bill Diddle in 1932.

The restoration work will begin July 5, and will include work on tees, greens and bunkers.

“Our intent is not to alter the Arlington Course, but merely polish it,” according to Bill Coore. “Bill Diddle and his co-workers created one of the finest examples of green and approach contouring that Ben and I have ever seen.”

Schreiner opens doors with major resort in China

By MARK LESLIE

DUJIANGYAN, China — The base of the Quingcheng Mountains will serve as the canvas for construction of the first golf course in Sichuan Province — part of a major resort expected to include two hotels, an American heritage theme park, mountain resort, villas and homes.

Called American Paradise, the 600-acre property neighbors a huge national park that attracts 8 million to 10 million Chinese every year. It sits a one-hour drive west of the capital city of Chengdu.

Developed by Sichuan Everbright Jinlian Industry Co., American Paradise is being built by Hellmuth, Obata & Kassabaum (HOK), which has 10 offices around the world, including Hong Kong and Tokyo. HOK is the builder of Camden Yards for the Baltimore Orioles and Gateway for the Cleveland Indians.

“This has the makings of an extraordinary [project],” said Craig Schreiner, senior golf course architect and consultant with HOK.

Ground was broken March 28 for a public course expected to open in the fall of 1995. Work on a private track will begin in 1996, said the Kansas City, Mo., architect.

The site and available labor have Schreiner excited about the possibilities. Situated in China’s most productive agricultural region, the public course will occupy a majority of the land closer to the lower portion of the property and will contain “a lot of nice roll” and a man-made 50-acre lake.

“The private course will hover in and around the base of the mountains,” and will be tied to upscale real estate, Schreiner said.

Running through the site is one of the 30-foot-wide canals that flows from the world-renowned, 2,000-year-old Dujiangyan Irrigation Project that harnesses four rivers, irrigates the entire province and regulates water flows for much of the country.

“There is so much labor available, that we will have hand-built walls, beautiful cobblestone paths, a lot of elaborate, detailed handwork,” Schreiner said.

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Badlands site looms as friendly soil for North Dakota developers

Continued from page 37

Red Mike, which will include the golf course and 80 spots for recreational vehicles, holds an intense attraction to each of the four partners. For Weeks — the superintendent at Country Club of Williston — “we already have better quality soil than we could even buy.

“Everything around this spot is clay hills and buttes. Yet, there is virtually no rock on this particular property. You could take an 18-inch soil probe and

bury it to the handle.”

For Kay, the architect, this may be the site of a lifetime. “I thought it was Ireland,” he said. “It is pot-marked, dunesy terrain, but similar to the cliff areas of Ireland. On half the holes we have beautiful views of Lake Sakakawea. But, water does not come into play.”

For Schlauch, it's a much desired chance for an extended visit to his home state.

Ames? “Stan and I decided this area desperately needs a real golf

course. We started looking for a place, and found our little bit of Scotland right out here in North Dakota,” he said.

Ames and Weeks searched along the Missouri River on the lookout for just the right land a year ago. A farmer whose land they singled out told them the best spot was not his farm but Red Mike Hill — a 270-acre property, sitting high above the waterway and named for a notorious cattle thief of the early 1900s. Weeks, who drove to

Nebraska to walk the much-talked-about Sand Hills Golf Course (GCN, February 1994), said: “I feel we have as much to work with as they do. They have higher mounding with the sand hills. We've got higher elevations. We've got the lake. And the land is like big sink holes.”

“What spurred me on,” Ames said, “was that I knew the soil type was right and we don't find that often in this part of the country. And we had a wonderful water supply.

Courses around here are built on poor soil and have poor-quality water for irrigation.”

“This site is a miracle,” Weeks said.

Indeed, only 1,000 to 2,000 cubic yards of dirt will be moved, Kay said. “We will only cut and balance the tee and green locations... The sandy loam soil is such high quality that [soil laboratories] said if we build big greens and have good surface runoff we can do pushup greens.”

That same soil also poses a challenge for Weeks. It contains a pH ranging from 8.3 to 9.4. Weeks has run test plots of grasses he intends to use:

- A blend of Seaside bentgrass and Jamestown II chewings fescue on the fairways
- A blend of Southshore, Cobra and Providence bentgrasses and Jamestown II chewings fescue on the greens and tees.

Ground will be broken in late April or early May. Late August or September is the target for completion and the foursome hopes to open the track by Labor Day 1995.

•••

The Red Mike project is a testament to how to overcome financial obstacles.

Ames and Weeks formed a partnership, bought the land and are leasing it to Red Mike Development Corp., consisting of the four men.

Kay and Schlauch are forgoing their fees in exchange for part ownership of the facility.

“We're leaving money on the table so they will have enough to do the project,” Kay said. “We'll have a cash outlay of around \$500,000 for 18 holes and a practice range.

Ames' company will install the costly irrigation system. Thus, his share of Red Mike will be greater.

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14 course builders earn certification

CHAPEL HILL, N.C. — Fourteen golf course builders have met requirements for certification for 1994, according to the Golf Course Builders Association of America (GCBA).

Passing the GCBA-instituted criteria and tests were Buky Golf of Mt. Washington, Ky.; Central Florida Turf of Avon Park, Fla.; Paul Clute & Associates of Hartland, Mich.; Dye Construction of California in Denver, Colo.; Environmental Golf of Santa Ana, Calif.; Fairway Construction of Temecula, Calif.; Golf Development Construction of Louisville, Ky.

Also, Greenscape Ltd. of Menlo Park, Calif.; Guettler & Sons of Ft. Pierce, Fla.; Landscapes Unlimited of Lincoln, Neb.; Moore Golf of Culpeper, Va.; Pierman Golf Co. of North Palm Beach, Fla.; Prince Contracting Co. of Palmetto, Fla.; and Wadsworth Golf Construction Co. of Plainfield, Ill.

Connor 'saving' course topos for Ross Society

By MARK LESLIE

PONCE INLET, Fla. — Super-mapper Ed Connor, a golf course architect who has recorded the terrain of great golf courses from Augusta National in Georgia to Pebble Beach Golf Links in California, is cut-rating his services to benefit the Donald Ross Society.

To preserve some of "the hallowed ground of golf" and encourage promising scholars, Connor is donating half his \$3,800 fee for "mapping" Ross-designed courses to the Ross Scholarship Fund.

"There's just two of us, and we don't interfere with play or maintenance," he said. "We hope members of Ross courses will see this is a non-intrusive first step in any future work they do."

"They can preserve what they have, so that regardless of what's done to change it — an overzealous green committee or a natural disaster — they can always restore the topography. That is the hallmark of most old golf courses."

The Ross Society has grown tremendously since its inception four years ago, attracting significant names among golf course architects and owners. It was also searching for direction, said Connor, whose Golforms firm is located here. The scholarships — given to landscape architecture students each year — was one answer.

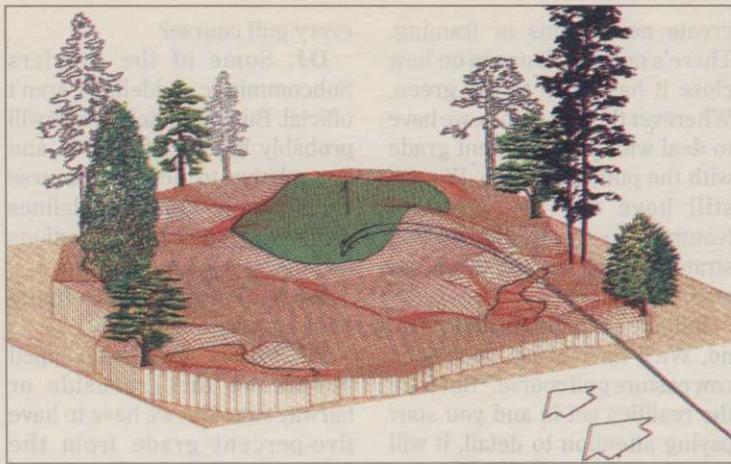
Through laser-surveying technology accurate to the smallest fraction of an inch, Connor has mapped about 100 courses, including Ross's Pinehurst No. 2 in North Carolina; Seminole Golf Club in North Palm Beach, Fla.; Sedgefield Country Club in Greensboro, N.C.; Inverness Club in Toledo, Ohio; and Oak Hill Country Club in Rochester, N.Y.

Over the last five years, he has refined the process and, with improved equipment, can map an 18-hole course in two days compared to the former six days. At Riviera Country Club in Pacific Palisades, Calif., he mapped the green contours to within one-quarter of an inch, he said.

Connor, who does a lot of course renovations, said he will map Ross courses when he is doing regular work in their vicinity.

Connor's terrain modeling is saved on computer disks, and is "strictly for the club's use," he said.

One club happy to use Connor's modeling was Augusta National, which saw part of its famous Amen Corner washed away in a hurricane two years ago. Connor's grids came in handy for reconstruction.



Pinehurst No. 2's 2nd green and its surrounds, as preserved by Ed Connor's computer documentation.

History of design a Ross Society panel topic

PINEHURST, N.C. — Golf course architecture — past, present and future — will be the after-dinner fodder at the banquet climaxing the Donald Ross Society's annual meeting here May 12-15.

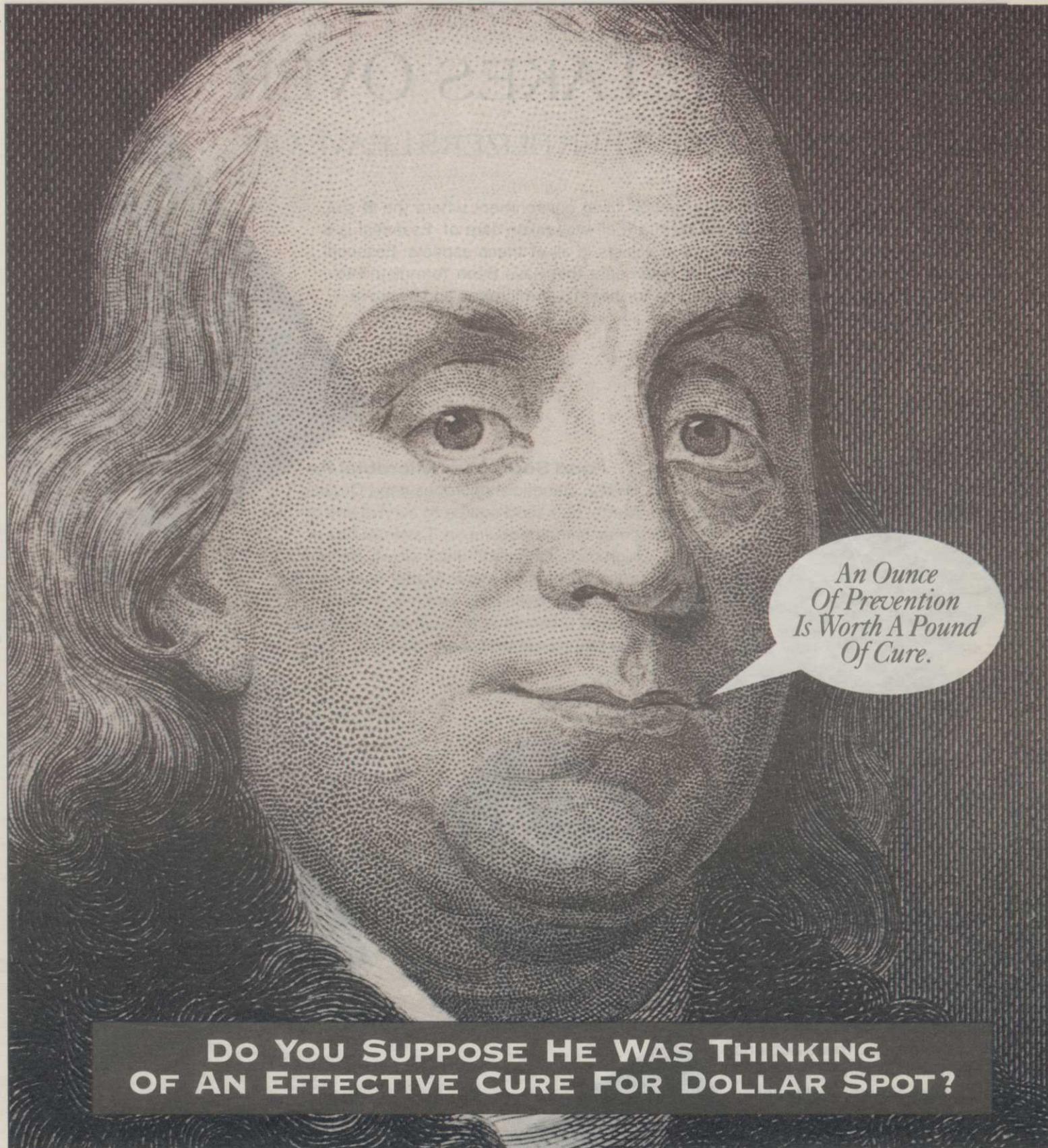
President Barry Palm said the featured program — on Saturday night, May 14 — will include a panel of Arthur Hills, Ron Forse, Ron Prichard, Tom Doak and Ed Connor. Other architects who belong to the society also are invited to participate.

Members also will elect new

officers and discuss regional meetings and the future direction of scholarship grants.

After a two-year hiatus, at which the annual tournament was played at Pine Needles and Mid-Pines, it will return to Pinehurst No. 2 this year.

Palm, assistant executive director of the Arizona Golf Association and co-founder of the Ross Society, said more information is available by calling 919-295-0906, or writing P.O. Box 403, Bloomfield, Conn. 06002.



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DeVictor on handicapped design

Continued from page 37

asking for one access point, whereas in our Clemson project we're providing two or three points where it will be within [the maximum allowable] five percent grade. Again, players won't be walking up and down steep slopes.

At the same time, it provides alternate traffic patterns, so the superintendent doesn't have to rope off areas like they typically do because of compaction on limited-access greens. The turf

will have less wear and tear. It's the same for fairways. When everybody accesses a fairway in the same place, it creates compaction and other problems. But if we're providing access every 75 yards along the fairway [a regulation], we're improving traffic.

GCN: Are architects going to have to find new ways to create access to greens?

DJ: No. Again, in green design you like to look for a natural site and setting. In addition, you might

create new berms or framing. There's no fixed distance on how close it has to be to the green. Wherever the cart path is, we have to deal with a five-percent grade with the putting surface. We can still have six- or eight-foot features. So the aesthetics and strategy won't be compromised at all.

Initially, people will think, "Oh, no. We'll have a flat, wide-open cow pasture golf course." But once the realities set in and you start paying attention to detail, it will actually enhance facilities.

GCN: Will this be necessary on

every golf course?

DJ: Some of the Barriers Subcommittee guidelines aren't official. But, ultimately, these will probably be official in 1996 and are relative to new golf course construction. Other guidelines are being adapted for renovations and new golf courses.

GCN: How do you make bunkers accessible?

DJ: We can have a deep-lipped bunker on the greenside or fairway side. But we have to have five-percent grade from the fairway into the bunker. It can remain highly aesthetic and a

high-impact feature. You just have to be able to get in and out of it in one or two areas.

GCN: Will the cart path become more integral to new designs?

DJ: Yes, it will have to be looked at in more detail. Good architects are already hiding cart paths. The lower-budget courses — maybe those built without designers — will need to be brought up to the level of access required.

GCN: Are golf courses going to be required to buy equipment for the handicapped — like handicap-modified carts?

DJ: That issue is unresolved at this point. But it is a major concern to everyone — both to the ADA, who are looking at it from the angle of becoming more accessible and more acceptable to be on the golf course, and to the golf community, concerned about the impact on them.

GCN: When will the equipment guidelines be complete?

DJ: The Golf Subcommittee is supposed to rule this spring or summer and the guidelines will be effective in 1996.

GCN: Have you heard feedback from the handicapped community who do not want to see flat, wide-open golf courses?

DJ: Yes, we're getting a lot of feedback from people saying, "Don't make any compromises in your design, in the aesthetic look you'd like to accomplish, in your tee placements." They feel that would be inappropriate. They want golf as it is played by everybody.

They just want an accessible route. In new golf course construction, it purely becomes a shaping issue in the field. It will take a commitment of all three parties — the owner, contractor and architect. All have to be aware of what they're trying to accomplish. But I don't see any problem in making 90 percent of tee boxes accessible to all people.

GCN: What about the other 10 percent?

DJ: I don't think there's a reason why 100 percent couldn't (be accessible). But there is always an exception — a tee on a bluff or on a mountain project where it might be very difficult to get a five-percent grade. Then it could be cost-prohibitive. The ADA is only asking for one tee box per hole. At our Clemson project we're making all of them accessible. They are leaving flexibility in the guidelines so they will be more than reasonable.

We were designing a cart path bridge across a creek to be 10 feet wide in any case, in order to get maintenance equipment across. Since they want a minimum of eight feet wide for a handicapped cart, it doesn't restrict our normal design. In Florida, you might have a bridge 200 feet across a wetlands; then the 10-foot width would become a cost consideration. Again, it's the access route: the cart path relative to bridges, the width of pavement, etc., etc., will impact a golf course more than the shaping, or look, or strat-

Continued on next page
GOLF COURSE NEWS

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CIRCLE #136

Kirchdorfer says builders' data base to help developers

Continued from page 37

1962, he has worked extensively on golf courses, and now even operates and develops them. He is president of Golf Development Co., which owns 27-hole Quail Chase Golf Course here; Kirchdorfer-Cunningham Inc., which owns 18-hole Hidden Creek in Sellersburg, Ind.; and Golf Development Construction Inc., a builder.

Toward the task of contributing to the industry, Kirchdorfer said the GCBAAs intend to create a database on golf course construction costs. "We want to provide valuable information that steers owners and developers in the right direction, so they can afford to build the course they desire," he said.

He also wants to work closely with architects and other allied associations to make the industry "more professional" — which ultimately provides the consumer "a better product at a cost they can afford."

To improve professionalism, GCBAAs will continue its year-old certification program, educating and testing members to ensure their expertise.

"That is a real strong point of our association," Kirchdorfer said. "We can give architects, owners

and others a list of qualified builders... Builders who become certified are taking pride in what they do and are saying they are willing to continue their education, develop better ways to build golf courses, and turn the wishes of the owners and architects into reality."

He said members are "conscious we need big and little [companies]. We need to involve remodelers, small construction companies in regional areas that

don't build major projects but have big impact on their area.

"We want to educate them. We want them to be doing things right and have the latest techniques."

Responding to the announcement that 1993 marked the third straight year more than 350 courses opened, Kirchdorfer said: "It's a growing, growing business. The real growth is in the nice, affordable public golf courses. They offer a lot to our builders — and the players. That

makes the facilities remodel that aren't quite as good. We keep taking the game of golf to another level in quality."

Involved in the GCBAAs since its inception in 1970, Kirchdorfer said of his presidency: "I'm excited. I think we have a way to go. We'd like a lot of growth. And I look forward to watching and helping direct golf course builders as they grow and work with Phil [Executive Director Phil Arnold]. Phil's our spark plug."

Barbaron building at Cypress Lake

LAKELAND, Fla. — Barbaron, Inc. of Crystal River has been selected by Cypress Lakes Ventures to construct a new 18-hole additional course at the Cypress Lake Golf and Country Club here. The course has been designed by Powell Golf Design of Bradenton and is scheduled to open in the early fall.

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Q&A: DeVictor

Continued from previous page

egy.

GCN: Are you anxious about the effects on your work?

DJ: Initially, I was anxious as to how it might negatively impact our developments, and I was protective of that. But since our conversations with representatives from Clemson and the handicapped, we have gained a comfort level. Most golf course design is incorporating 80 or 90 percent of these issues without even being conscious of it. So when the design community becomes aware of them, it will be very easy to incorporate that last 10 or 20 percent into the design.

GCN: Has this opened your eyes as to how restrictive golf has been in the past to the handicapped?

DJ: Yes, but I think I don't have a full understanding. I think more restrictive than the golf course are the attitudes, unfortunately, in the pro shop or among management when an individual shows up in a wheelchair. I haven't seen that. It's not a big deal to me relative to the golf course. But I can imagine it will be a bigger perception thing in the golfing community, and the impact, or lack of impact, to the golf course. I don't think it will have any impact on speed of play. I've heard stories where a disabled group has let another group play through only to wait for them at every tee.



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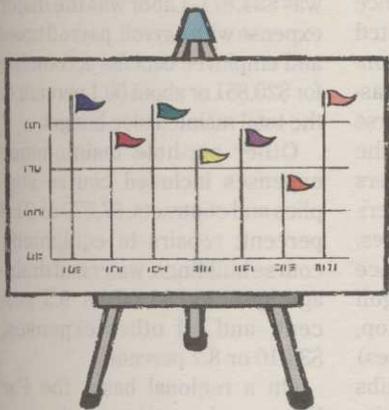


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CIRCLE #138

(It's about time.)

BRIEFS



MARTTY GOLF ADDS TWO TO FOLD

FAIRHOPE, Ala. — Martty Golf Management has inked agreements with two golf facilities. Martty will manage Jennings Mill Country Club, an 18-hole Bob Cupp-designed course in Athens, Ga. The Alabama firm has also signed a consulting agreement with Chantilly Manor Country Club in Rising Sun, Md.

NGP ACTIVE IN SEATTLE, SAN JOSE

SANTA MONICA, Calif. — National Golf Properties has acquired Summitpointe Golf Course in Milpitas Calif., and Lake Wilderness GC in Maple Valley, Wash.,

from Japan's Sumitomo Bank. The acquisition gives NGP its second course in the Seattle area and first in San Jose. NGP plans renovations and upgrades of both facilities. NGP also recently purchased The Golf Club at El Dorado Lakes in Gilbert, Ariz. American Golf Corp. will manage all three facilities. NGP's portfolio now includes 55 golf facilities.



NEW MEMBERSHIP DIRECTOR AT PALMER

ORLANDO Fla. — Arnold Palmer Golf Management Co. has appointed Beth Sargent as director of membership and affiliation services and Jon DePriest as general manager/director of golf for Spencer T. Olin Community Golf Course near St. Louis. Sargent was most recently director of membership for Palmer's Bay Hill Club and formerly with Club Corporation of America. DePriest, a 14-year golf-industry veteran, was promoted from head golf professional at Spencer T. Olin.

COUNTRYSIDE ADDS DUNBARTON NINE

DUNBARTON, N.H. — Countryside Golf Inc. recently purchased nine-hole Valley View Country Club here. Countryside plans to begin design and permitting of an additional nine holes in 1995. Improvements to the existing nine and the clubhouse are currently underway. J.A. Canfield & Co. of North Conway represented the seller.

VIRGINIA OAKS, HURDZAN TAP GPA

HARRISBURG, Pa. — HP Companies recently retained Golf Property Analysts of Harrisburg to provide appraisal and analysis services for the Virginia Oaks Golf Club in Gainesville, Va. Hurdzan Golf Course Design has also employed GPA to provide feasibility analysis services for a proposed golf course community near Athens, Ohio.

Course photography adds to image, bottom line

By MARK LESLIE

A picture says a thousand words — and can sell hundreds of golf club memberships or thousands of golf rounds, for that matter. So, taking the best photograph at the best time takes on crucial dimensions, say world-known photographers Mike Klemme and Tony Roberts.

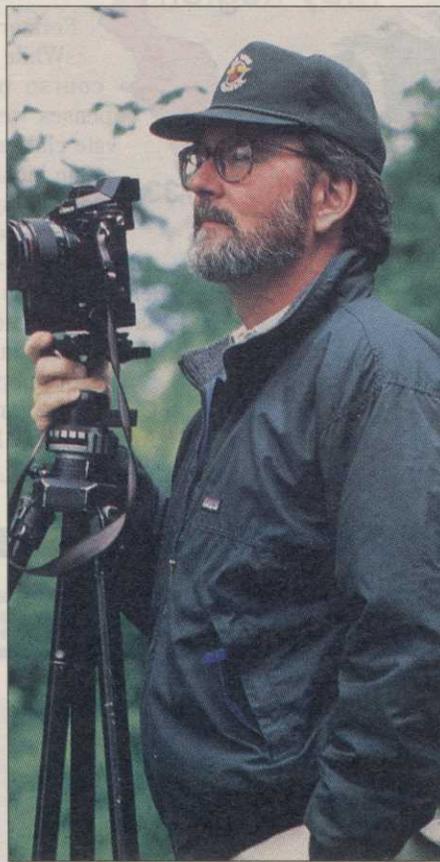
"The power of the picture" can make or break a golf course, said Klemme, whose Golfoto, Inc. is located in Enid, Okla.

When Interfive Co. Ltd. of Nagoya, Japan, hired Klemme to photograph its World Woods Golf Course in Florida, Interfive paid his fee for two days but reaped many times that amount in free advertising.

"We got photos in 25 different magazines. Six calendar companies ran photos. And it didn't cost [Interfive] a dollar," Klemme said. "We kind of turn into a marketing partner."

"I can oftentimes make a marginal-looking place look good," Roberts said. "Sometimes there's not one good hole to photograph. Then you have to pull a rabbit out of the hat."

Real or conjured, photos are necessary for many areas at a golf course: on scorecards, in yardage books, marketing materials, advertisements, and elsewhere.



Tony Roberts

Continued on page 61

May trains lens on life after Dye Designs

Ken E. May, formerly of Dye Designs, Inc. of Denver, Colo. has formed Rolling Greens Photography, located in Aurora, Colo.

May had been Dye's marketing and advertising coordinator and photographer for more than five years. Some of his most notable work has been the Dye Family Golf Course Calendar, awarded the Bronze Award for Most Creative Marketing Application in 1993 by the Calendar Marketing Association. May takes with him to Rolling Greens the Dye Designs photographic collection covering more than 80 Dye courses in various stages of completion, along with more than a decade of images of the Dye family, all of which he offers through a stock agency.

For more information, contact May at 303-366-4915; or write Rolling Greens Photography, 12246 East Second Drive, Aurora, Colo., 80011.



The Trophy Club in Houston, one of the new Cobblestone additions.

Cobblestone making strides in Sun Belt

By PETER BLAIS

"We like to think of ourselves as getting a Mulligan in this business. Because of the experiences we've all had, we get to throw out the bad and keep the good."

That's how Cobblestone Golf Group President James 'Bob' Husband, explains the success of the 18-month-old company founded by he and financial partner Brentwood Associates.

Since October 1992, Cobblestone has purchased or leased 10 Sunbelt courses. The most recent was February's acquisition of Pecan Grove Plantation Country Club, a private facility that marked the San Diego-based firm's entry into the Houston market. Plans are to add approximately five clubs a year in the foreseeable future.

Toward that end, Husband has assembled an experienced manage-



Bob Husband



Gary Dee

ment team. Husband is a 20-year golf industry veteran and former chairman of chief operating officer of GolfCorp, ClubCorp International's public golf subsidiary.

He oversees an executive staff that includes Vice President of Operations Gary Dee, former head of operations for the PGA Tour; Vice President of Golf Operations Robert West, a former golf course owner and director of golf at Walt Disney World in Orlando, Fla.; Vice President of

Continued on page 50

American Links, with you every step of the way

By PETER BLAIS

SAN ANTONIO, Texas — Four partners with extensive experience as owners, lenders, course designers and contractors have formed a company that can guide a course developer from initial planning through actual opening and operation of a golf facility.

"We impart to any project the unique ability to incorporate all these perspectives in our service to our clients," said American Links Consulting (ALC) President Randy Trull.

"This combination of experience enables us to guide a client from the initial concept to a fully operational facility. Our services will include assistance in developing a concept, determining objectives, selecting the right designer and planning well-functioning facilities.

"Not only can we provide construction management during the project, we can also extend our services to implementing programs for the operation phase and long-term management of the facility."

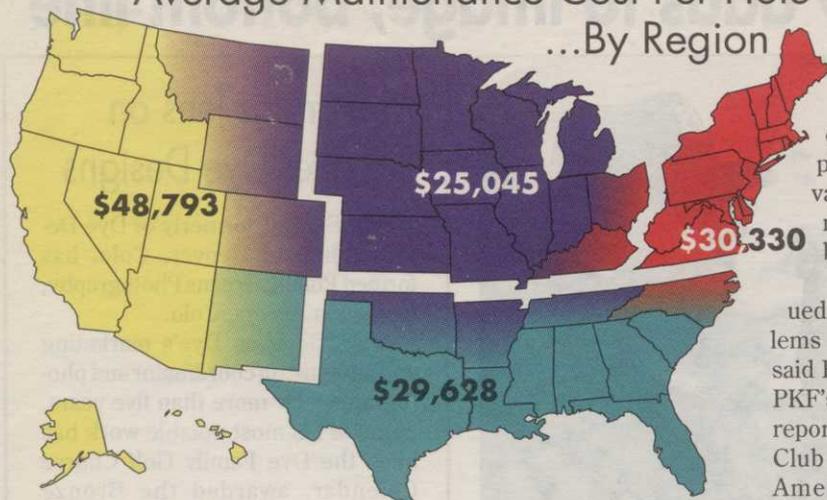
While many management companies claim to offer developers similar concept-to-operation services, Trull said many are simply too small in scope and too inexperienced to be truly effective.

"I felt a need for a company that could offer a wider range of services while still providing detailed, efficient management," Trull said. "I believe we've put the right team together to do just that."

The team includes:

- Trull, President/General Manager — Trull spent the last 10 years with Wadsworth Golf Construction Co., starting as a shaper at Barton Creek Country Club in Austin, Texas, and working his way up to project superintendent. At Wadsworth, he was involved in more than 20 courses, nine of which appear in *Golf Digest's* most recent

Continued on page 49

Average Maintenance Cost Per Hole
...By Region

PKF report paints bleak picture for private clubs

Continued from page 1
Forster Worldwide.

While labor and other course maintenance expenses were going up, private club memberships (the main income source) have been going down.

"It's a trend that, if continued unchecked, will cause problems for clubs down the road," said Reilly, whose firm compiles PKF's Clubs in Town & Country report in cooperation with the Club Managers Association of America (CMAA). During

CMAA's recent annual conference in San Antonio, Texas, Reilly noted two causes for escalating personnel costs — the need for increasingly skilled labor to perform course maintenance operations and the tendency for private club workers to remain at their jobs for long periods with attendant wage increases.

Overall course maintenance costs rose 4.1 percent and net golf expenses (including golf shop, caddie and committee expenses) 2.2 percent in 1992 at the 240 clubs PKF surveyed. The average maintenance cost per hole nationwide

was \$34,671. Labor was the major expense with payroll, payroll taxes and employee benefits accounting for \$20,851 or about 60.1 percent of the total maintenance budget.

Other per-hole maintenance expenses included course supplies and contracts, \$7,570 or 21.8 percent; repairs to equipment, course buildings, water and drainage systems, \$3,240 or 9.3 percent; and all other expenses, \$3,010 or 8.7 percent.

On a regional basis, the Far West was the most expensive area for course maintenance at \$48,793 per hole. That was followed by the East, \$30,330, South, \$29,628 and Midwest, \$25,045.

The East had the largest per-hole maintenance increase, up 7 percent. The other three regions experienced increases below the 4.1 percent national average.

And what about income?

Nationwide, country club membership dropped 0.3 percent in 1992. The Midwest felt the biggest decrease, 0.9 percent, followed by the South, 0.7 percent, and East, 0.3 percent. The Far West saw the only increase, 0.2 percent.

"The disturbing news is that membership is static or even declining, prior to the effect the nondeductibility of dues may have on membership...," the report states. "The economy, while improving, has not rebounded with vigor. Clubs will continue to fight this decline with little help from outside forces."

Clubs that believe they had a cushion against the recession in the form of membership waiting lists might want to re-evaluate their position in light of lean economic times, Reilly advised.

"You should consider checking to see if that list is still good," he suggested. "If you're not doing it now, consider charging something to those wanting to be put on the waiting list. The list should remain more accurate that way."

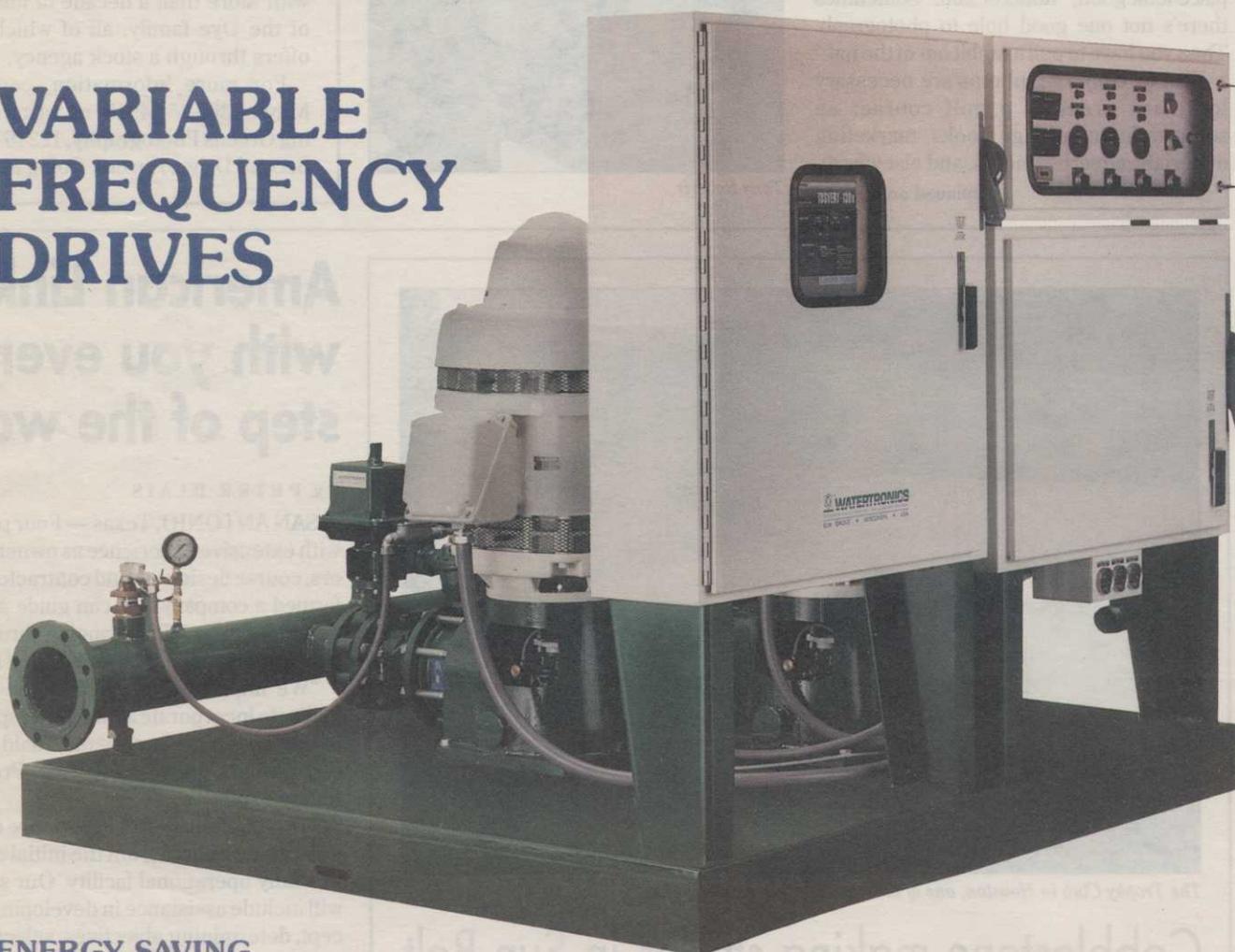
The result of increased maintenance costs, declining membership and smaller food and beverage profits, has been a drastic decrease in the amount of money available for debt service and capital improvements, Reilly said.

Debt reduction and capital improvement reserves plummeted 32.5 percent in 1992 to just 1.4 cents for every dollar of income. That compares to 8.1 cents in 1987 and 10.2 cents in 1982. With less money available from dues and other income sources, clubs are increasingly dependent on special assessments and depreciation to either finance improvements or retire loans.

With costs unlikely to reverse their upward spiral in the next few years, Reilly recommended creatively increasing income by making private clubs a destination point, much like resorts, for members and their families.

Ideas that have worked elsewhere, he noted, include family outings, summer camps, smaller clubs within the main club, and special functions.

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Paloma revives Tan Tara

NORTH TONAWANDA, N.Y. — Tan Tara Golf Club is reportedly on the road to economic recovery. Last October the Paloma Golf Group purchased the 18-hole course and clubhouse at a court-imposed foreclosure sale for \$2.6 million. Paloma's was the only bid for the property. Membership had dropped to less than 300, down from a peak of 600. PGG Marketing VP Pamela Smith launched a campaign aimed at keeping existing members while using advertising and public relations to attract new ones. Over the first 60 days, the club retained 98 percent of existing members while adding 110 new ones. A grand re-opening is scheduled for this spring.

A Fla. power savings

MIAMI — Courses can save on electric bills and earn cash incentives by taking advantage of Florida Power & Light Co.'s Off-Peak Battery Charging Program.

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CIRCLE #140

American Links

Continued from page 47

list of America's Best Courses.

- Jack Parker, Business Development — As chief executive officer of Club Consultants Inc., Parker has more than 40 years experience managing golf facilities. He owns Tapatio Springs Resort & Conference Center outside San Antonio and is managing partner of The Quarry, a critically acclaimed Keith Foster design that opened last fall in San Antonio and has been nominated for Golf Digest's best new public course.

- Bill Ellis, Planning/Development — Ellis was chiefly responsible for developing The Quarry and specializes in golf development and project management.

- Jay Eddy, Planning/Finance — Eddy is an international banker with 22 years experience in real-estate finance and development. His firm financed The Quarry.

"We can hold an owner's hand and protect his interests from start to finish," said Trull, whose main strength is 20 years of engineering experience.

"I stress value-engineering, presenting a developer with all the options during construction, detailing the costs and letting him decide. For instance, that might entail the benefits of surface drainage versus underground piping or perhaps retaining elevation changes versus blasting to level the landscape."

The growth of golf has led to a proliferation of development-related firms, Trull said. Helping an uninitiated developer or greens committee select the right designer, construction firm, product vendors and the like can save the developer thousands of dollars, he added.

Since the extent of ALC's participation in any project will vary, "our fee schedule is dependent on the intensity of our involvement," the company president said.

Since forming ALC in early February, Trull and his partners have been approached by several groups and entered negotiations with some in the United States and Mexico.

For more information, contact American Links Consulting, 200 Concord Plaza, Suite 750, San Antonio, TX 78216; or telephone 210-828-2885.

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CIRCLE #141

Cobblestone Group

Continued from page 47

Acquisitions Andrew Crosson, former head of development and acquisitions with GolfCorp; and Vice President of Acquisitions Joseph Champ, former vice president of acquisitions at American Golf Corp. and National Golf Properties Inc.

"Between us, we have experience with just about every major company and association in the golf business," Husband said. "We don't run up against much that one of us hasn't seen before."

What they've seen over the past year and a half is more than 250 projects cross their desks. The 10 that have passed muster have successfully filled the niche Cobblestone is seeking.

Cobblestone's strategy is to purchase undercapitalized, upscale public and private clubs then improve their performance through facility upgrade and enhanced marketing.

"We make a very strong attempt to listen to and better understand our customers," Dee said. "We have a revenue-enhancement rather than a cost-reduction focus. In other words, we're willing to provide better facilities and services so customers are willing to spend more money."

For example, prior to December's purchase of The Trophy Club in Dallas, Cobblestone conducted focus groups among members. The firm asked what members wanted. That resulted in plans to completely renovate the clubhouse, install new golf cars, purchase additional maintenance equipment and build another nine holes.

The company also hopes to create clusters of courses in Sunbelt metropolitan markets. Acquiring four to five courses in the same region, Dee explained, allows Cobblestone facilities to share specialized equipment; members to play at several Cobblestone clubs for one membership fee; top-flight managers to spread their expertise among several facilities; and the company to take advantage of group-buying situations.

The immediate goal is to fill out clusters in areas where the company has one (Houston and Phoenix) or two (Dallas) courses. Cobblestone already controls five San Diego courses, which prompted August's move of corporate headquarters from Los Angeles south to San Diego.

Cobblestone plans to move into the Southeast once the other clusters are filled.

"We've looked at a lot of Florida courses, but it's a tough market right now," the company president said. "We haven't looked at much else in the Southeast, mainly because we don't have many people in that area. Joe Champ should be able to help us there."

Cobblestone could exceed its

five-course-a-year acquisition goal if the right properties become available.

"Were not limited financially," said Husband, referring to the \$32 million Brentwood has committed to acquisitions plus Husband's own resources.

The company prefers ownership over leasing, unless a lease arrangement could eventually lead to an ownership position, Husband said.

"Management-only contracts are too risky," he explained.

"You manage a facility for a few years, the owner thinks what you do is easy and he decides to

do it himself. Or he hires away your manager and lets the management company go."

Cobblestone believes a unique window of opportunity exists to buy courses built during the last decade as part of real estate developments. The downturn in the housing market and withdrawal of the Japanese as big-time investors has prompted many banks and developers to make courses they control available for acquisition by competent acquisition/management firms.

Pecan Grove is a prime example, Husband explained.

The 27-hole course was part of an 1,100-acre community. The developer had about 25 percent of the lots remaining. He wanted to divest himself of the course. But he wanted an assurance that whoever took over would maintain the course at a high level that would allow him to continue selling lots and protect his reputation for future developments.

"We feel that if developers look at our team, they see we can fill that role," Husband said. "We believe the window will remain open another year or two."

Following is a list of courses Cobblestone Golf Group owns or leases throughout the country:

Carmel Mountain Ranch, El Camino Country Club, Whispering Palms Country Club, Balboa Park and The Vineyard at Escondido in the San Diego area.

Saticoy Regional, Ventura, Calif.; Foothills Golf Club, Phoenix; Pecan Grove, Houston; Trophy Club and Woodcrest Country Club in Dallas.

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Bill Womac
Superintendent
Dunwoody Country Club
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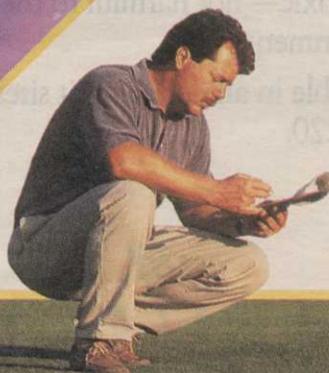


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Marketing Idea of the Month

Client questionnaires, if handled properly, can help peg your market

By TIMOTHY GRAYSON

Since August I've been helping a client make the most of the summer deluge. Unless you were on the East coast, which had its own problems with water (i.e., not enough) you know only too well how Noah felt. The summer of 1993 left a spongy bog through

Timothy Grayson has a marketing consultancy, Timothy R. Grayson Services, based in Winnipeg, Manitoba, Canada. He is also the president of a high tech firm.

most of the Midwest.

It's tough to take, and the cost of lost revenue and repairs could be enormous. But in instances such as my client's, Mother Nature simply provoked an overdue restoration. Take heart. Augusta National had the same problems a few years back.

When I first met with my client, he was beside himself. Three complete holes and one other green had been submerged for a month. Lucky for him, insurance would cover most of the repairs.

He talked for about an hour, detailing what had to be repaired and the changes he was going to make. At the end of his monologue, I asked what kind of changes his patrons would like.

It was a sensible question: the course required repair, and the construction provided an opportunity to upgrade or change the course. The only question remaining was what to



Timothy Grayson

change.

Our initial tack was to make the changes we wanted — primarily for reasons of vanity. By the end of our first hour together, however, we had begun to think about changes to suit the golfers instead.

Where to begin? The season was over, and like many courses the customer records were not particularly extensive. But season pass records for the previous few

years were available. So we created a simple questionnaire and sent it to everyone on the lists.

In our questionnaire, we asked for some personal information such as age, approximate income, occupation, frequency of golfing, etc., for a demographic reference point. That we followed with about 10 simple questions like:

- Name three things you like about the course.
- Name three things you don't like.
- If you could, how would you improve the golf course?
- At what other courses do you golf?
- What would make you golf more often at this course?

To ensure that we would get a reasonably fair response, we sent the questionnaire with a cover letter and coupon entitling the respondent to either a free round of golf for a friend or a sleeve of balls if they completed and returned the card.

The results were astounding. More than 70 percent of the cards came back full of valuable, decision-aiding information. We discovered how the regular golfers view and perceive the golf course. Their general comments led us to the changes best for the golfers.

We took all the comments and criticisms into account before my client chose what needed attention and how to repair the course. The responses were often contradictory. But we were looking beyond the narrowly specific suggestions for the broad messages were being sent.

"Make the course friendlier," we deduced from comment like "the greens are too small."

"Thin out the bush on the tenth hole," and "Remove some of the bunkers around the green," from statements such as "fix the tee boxes," "make the fairway markers more visible," and "keep the carts to the side of the fairways."

We assumed "Improve the grounds (maintenance)."

What we did not do was implement specific suggestions. The cover letter specified this so nobody would expect their particular changes to be made. Nor did we entertain the idea of a grandiose "rebirth."

Wholesale change is a dicey proposition. If it works, it really works. But if it doesn't work, you could be in for a bigger mess than you bargained for. (Can anybody say, "New Coke?") A few well placed and obvious "improvements" can make a significant change to the image or personality of a course.

The bottom line is, this disaster forced my client to make some repairs. But it also gave him the marketing opportunity to make the course better satisfy his market. Now, with little added effort or cost, he feels 100 percent more confident about his ability to compete with the upscale monster down the street.

Dick Stuntz
Superintendent
Alvamar Country Club
Lawrence, Kansas
"With the amount of flooding and heat we've had this season, most preemergence herbicides would have fizzled out by now — but not Barricade. It's still giving us excellent control."

John Freeman
Superintendent
Deerwood Country Club
Kingwood, Texas
"Our preemergence weed control program was too expensive. Rather than cut back we switched to Barricade. Now, for the same dollars, we not only get excellent control, but also more coverage. Plus, we have the advantage of using multiple applications and getting better control of a broader spectrum of weeds."

SANDOZ
HERBICIDE
CRABGRASS PREVENTER ON FERTILIZER
65WG

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CIRCLE #142



UNTREATED

TREATED
with 5-oz. FeRRROMEAC AC
per 1,000 square feet.

FeRRROMEAC® Liquid Iron's rapid greening effect is illustrated in this 50,000 sq. ft. zoysiagrass lawn at Liberty Park, a development of Torchmark Development Corporation, located along I-459 in Birmingham, AL. It was photographed 48 hours after the right side was sprayed with FeRRROMEAC

Liquid Iron. To conduct the demonstration, Landscape Services Inc. divided the lawn with a plumbline on June 5, 1991, and walked the treatment on the turf, using a ChemLawn gun. LSI supervisors are shown admiring the difference before spraying the rest of the turf.

They Got the Green Without the Growth

Read how one of the largest landscape maintenance and installation contractors in the South achieves brilliant, long-lasting green without excessive growth or expense by relying more on FeRRROMEAC® Liquid Iron and less on nitrogen.

Everett Mealman,
Chairman and
Chief Executive Officer
PBI/Gordon Corporation



"It's our belief that there are two basic factors that have a bearing on our success as landscape maintenance and installation contractors," says Carl Love, maintenance supervisor, chemical division of Landscape Services Inc. (LSI), headquartered in Birmingham, Alabama. "They are: the health and appearance of the turf and ornamentals we manage; and customer satisfaction."

Obviously, LSI is doing well on both

counts, as witness the fact that they are one of the largest companies of this kind in the South.

Their program for zoysia and Bermuda consists of a special fertilizer formulation that is designed to rely more on Ferrmec than on nitrogen to supply the color. Five fertilizer applications per year are made . . . one every 40 days during the growing season, with a custom-tailored fall application that varies from year to year. Ferrmec is the major component in this program to assure maximum green-up.

"This schedule gives us what we like to call *show turf*," says Love, "and yet the cost is more than competitive. Best of all, it doesn't result in excessive top-growth that occurs when you rely completely on nitrogen for color."

So much for healthy, beautiful turf and reasonable costs.



Carl Love

But how about the way they treat their customers?

"Customers want to know that you appreciate their business. They need to know that they can depend on you for special requests as well as day to day maintenance. Ferrmec, with its fast, brilliant green-ups, is a real jewel in our customer relations program. Our customers see immediate results from a visit and know that, no matter what the occasion, their landscape will pass the test."

How's that for *treating* your customer right!

Love goes on to say that LSI has tested many liquid irons, but says that none of them measure up to Ferrmec.

"Ferrmec is ideal," Love contends. "It always works! It works *fast!* The color lasts *longer!* It's economical . . . and perhaps most important of all in this environmental age . . . it gives us the *green without the growth.*"

Why FeRRROMEAC is superior to other liquid irons

Ferrmec is formulated by a patented process which creates a stable solution of urea and iron sulfate. The nitrogen in Ferrmec, being in urea form, carries the iron into the plant quickly and efficiently. Although stable in solution, the urea and iron quickly break down after being absorbed by the plant.

Thus Ferrmec produces a radiant green *fast!* . . . usually within 24 hours, depending on conditions.

Yet the amount of nitrogen in Ferrmec is so miniscule that you get this dramatic green without the unwanted topgrowth associated with heavy nitrogen fertilization. The color generally lasts through five to six mowings.

Furthermore, the urea in Ferrmec holds the iron in a Ferrrous state. Thus that portion of a Ferrmec spray treatment which misses the leaves and falls to the ground can still be slowly absorbed through the roots.

If you, like Carl Love, want the "green without the growth" try Ferrmec — the liquid iron you can rely on.



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KANSAS CITY, MISSOURI 64101
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CIRCLE #143

FeRRROMEAC® AC

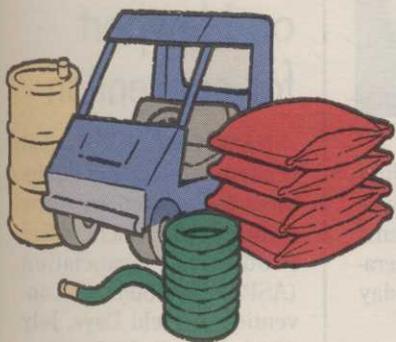
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AMINE COMPATIBLE LIQUID IRON

757-R-193

BRIEFS



CHANGE OF SCENERY FOR ISS

TAMPA, Fla. — ISS Landscape Management Services Inc., a golf course maintenance contracting firm, has moved its offices here, according to Steve Stanford, business development manager. The new address and phone numbers are as follows: ISS Landscape Management Services, Inc., 5028 Tampa West Blvd., Tampa, Fla., 33634; phone — 813-886-0001; fax — 813-889-3839.

RISE ADDS TWO MEMBERS

WASHINGTON, D.C. — RISE (Responsible Industry for a Sound Environment), has welcomed two new members: Dudnyk Advertising and Public Relations (associate non-voting) and SePro Corp., a basic manufacturer based in Indianapolis and administered by three former DowElanco employees, including Winlliam Culpepper, former chairman of RISE.

UL CERTIFIES AQUAMASTER

Underwriters Laboratories Inc. (UL) of Northbrook, Ill., has successfully completed its engineering investigation of all AquaMaster Products. UL now authorizes and gives AquaMaster permission to apply the UL mark to its products in its category 778: Submersible Aerators and Aerating Fountain Pump Systems. AquaMaster is the first floating aerating fountain manufacturer to receive the distinction of the UL listing on their complete system, as opposed to various individual components.

S&R FUND BOLSTERED IN DALLAS

Jacobsen, Ciba and Rain Bird again co-sponsored the annual Environmental Steward Awards, awarded for the second time in 1994. At the GGCSAA Conference and Show in Dallas, the companies announced a donation of \$17,600 to the Golf Course Superintendents Association of America Scholarship & Research Fund.

FAIR JOINS CORON CORP.

William E. Fair has joined CoRoN Corporation as technical supervisor. Fair brings an extensive background in specialty fertilizer research, formulation development, and manufacturing technology to CoRoN. He has long-term experience in analytical laboratory supervision, liquid packaging, quality assurance, environmental compliance, and technical sales. He is an active member of the American Chemical Society and just completed his second term as chairman of the Fertilizer and Soil Chemistry Division.

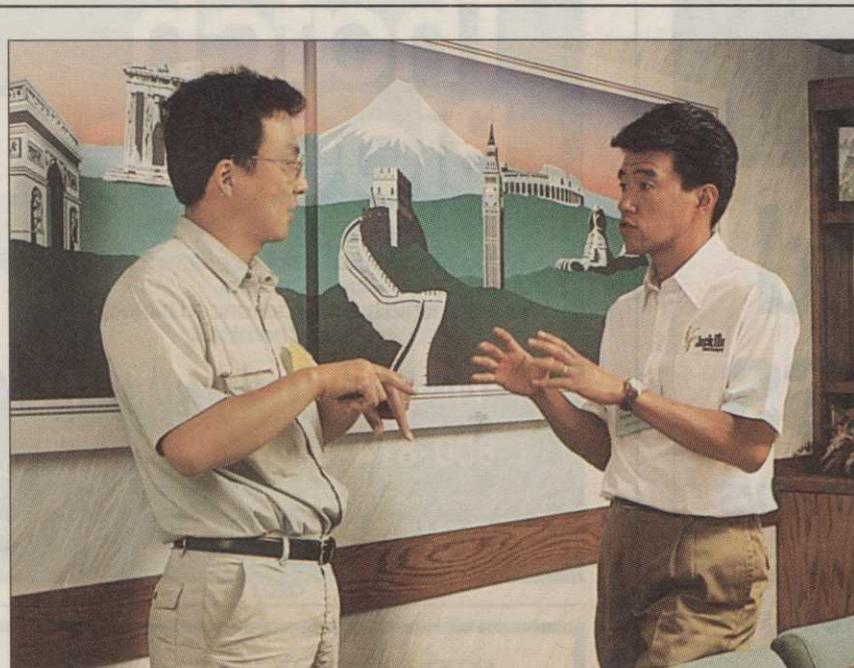


William Fair



THE YEAR WAS 1919...

The 19th Amendment to the U.S. Constitution was ratified to usher in the era of Prohibition... World War I was formally ended with the signing of the Treaty of Versailles in France... Stanard Kinhead was back from the Great War and, in a small shop in St. Paul, Minn., he opened for business as the National Mower Company. To commemorate its 75th Anniversary, the company is offering a \$100 Anniversary Reward for the oldest National Mower still in active service. A \$100 prize will be presented to the person who locates the machine and \$100 to the person who owns it. All entries must include a photograph and must be submitted to National Mower by July 1, 1994. The company's own photo archives (above) have revealed a very early, horse-drawn 84-inch gang-type triplex from 1921. Can you top it? For more information or to report an ancient National Mower sighting, contact the company at 612-588-0741.



JacklinGolf's Hiromi Yanagisawa (right) talks business with an Asian client.

Taking the full-service approach overseas

By HAL PHILLIPS

XIAMEN, China — As developers rush to stake their claim in the burgeoning Asia-Pacific golf course market — and corporations scramble to supply them — JacklinGolf is determined to stay one step ahead of the game.

"We're quite different," explained Hiromi Yanagisawa, marketing director and the Asia-Pacific point man for U.S.-based JacklinGolf, the full-service golf course consulting division of Jacklin Seed Company. "We only concentrate on the developing countries around the world. We want to be the first one to go in... When a country is developed, we're gone. When the competition moves in, we move out."

Perhaps under the impression that China will be developing for quite some time, Yanagisawa revealed that JacklinGolf is planning to construct a seed production plant here in Xiamen.

*'We're quite different...
When a country is
developed, we're gone.'*

— Hiromi Yanagisawa

It takes 30 days to ship seed across the Pacific, and Jacklin just air-freighted 1,000 pounds of seed to Andy Dye's Laguna National, a 36-hole development in Singapore. Presumably, Jacklin will avoid the inconvenience and expense of such ventures after setting up shop in Xiamen.

According to Yanagisawa, Jacklin will enter a joint venture out of Hong Kong with two Taiwanese firms on the seed production project. JacklinGolf is involved in four golf course projects in China, including one here in Xiamen. The owner of all four courses and the

Continued on page 56

New corporate offices, CEO for Aquaterra

FT. LAUDERDALE, Fla. — Bob Nissenfeld has joined the environmental services firm, AquaTerra, Inc. as chief financial officer, according to Robert Radler, president of the newly relocated company.

AquaTerra moved its headquarters from Davie to Ft. Lauderdale to accommodate its expansion needs, according to AquaTerra Executive Vice President Andrew Chesler.

As the new CEO of AquaTerra, Nissenfeld is responsible for the day-to-day and long-range financial activities of the parent company and its two subsidiaries, Environmental Waterway Management, Inc. and Florida Underground Petroleum Tank Contractors, Inc.

Environmental Waterway is an environmental company specializing in lake management, aquatic weed and algae control, exotic tree control, mechanical harvesting, wetlands creation and restoration, marsh maintenance, and monitoring, fish stocking, floating fountain displays and aeration systems. Florida Underground is an environmental construction firm that offers site remediation and a wide range of environmental services, including storage tank removal/closure and installation, soil remediation, and the installation of ground water extraction and treatment systems.

Prior to joining AquaTerra, Nissenfeld

Continued on page 55

Kubota Canada strikes distribution deal with Bunton

The Bunton Company and Kubota Canada Ltd have entered into an agreement to distribute Bunton's Commercial Golf & Turf products. The agreement provides Kubota Canada with distribution rights to the entire Bunton product line.

"This arrangement will provide Kubota Canada's extensive dealer base access to Bunton's commercial mowers, a line that will complement other products currently being sold by Kubota dealers," said to Gary Shampeny, vice president of sales and marketing for Louisville, Ken.-based Bunton.

Historically, Kubota has not distributed non-Kubota-branded products.

"The Bunton company venture is unique for Kubota," confirmed Fred Engelage, Kubota's vice president of sales. "This represents the first time that Kubota has distributed a product line that is not Kubota branded. Knowing this, it speaks well of Kubota's respect for Bunton's products."

In another move, Bunton has appointed Mark Lamb to the newly created position of manager, GTM Engineering. In his new post, Lamb will direct the development of all products targeted at the golf and turf maintenance markets. Lamb joins Bunton after leaving Cushman, Inc., where he was an engineering product manager.



Mark Lamb

Hobbie named Ransomes America sales manager

MINNEAPOLIS, Minn. — Ransomes America Corp. has named Ron Hobbie national accounts manager for the company's Turf Products and Industrial Products Divisions.

Meanwhile, Mike Johns has been reassigned as territory manager and John Chiera has been hired as a territory manager. Both Chiera and Johns will work in the Turf Products Division.

As national accounts manager, Ron Hobbie will oversee servicing of existing accounts, as well as selected professional lawn care accounts. He will also work closely with territory managers to identify and develop pricing programs

for new national accounts.

In his new position, Johns will handle sales responsibilities for the south central region of the United States. He will also handle selected key industrial accounts in the U.S. and Mexico.

As a turf products specialist, Chiera's responsibilities will include the distribution of Cushman, Ransomes and Ryan products throughout the north-east area of the U.S.

•••

Ransomes America Corporation has opened a new training center at the company's Lincoln, Neb., manufacturing facility. The center offers service training ses-

sions on turf, professional lawn care and industrial and commercial equipment from the Cushman, Ransomes and Ryan product lines.

Held 15 times a year from October to March, most training sessions last 4 1/2 days and focus on specific pieces of equipment like the Ransomes 300 fairway mower or the Cushman Haulster utility vehicle. The "service schools" range in size from 12 to 15 people. Typical attendees include Ransomes America Corporation industrial and turf dealer service personnel along with equipment maintenance mechanics from golf courses.

Service training sessions usu-



Mike Johns

Ron Hobbie

ally include tear down, rebuilding and adjustments of various power units, drivetrains, hydraulic systems on mowers, utility vehicles and aerators. Information on day-to-day maintenance is also reviewed.

For more information on Ransomes America Corporation's training center, contact Ransomes America Corporation, P.O. Box 82409, Lincoln, Neb. 68501; 800-228-4444.

ASPA descends on Newport for convention

NEWPORT, R.I. — Sod related exhibits and equipment demonstrations will be featured at the American Sod Producers Association (ASPA) 1994 Summer Convention & Field Days, July 27-29, here at the Newport Islander Doubletree Hotel.

The convention will begin on July 27, with committee meetings, the ASPA annual business meeting, and an educational program, all held at the Newport Islander Doubletree. A New England clam bake, hosted at Sodco, Inc. in Slocum, R.I., will be held that night and will feature open exhibit displays, dining and entertainment. July 28, will be highlighted by observation of the third annual ASPA seed test plots July 29 is four-day.

For further information regarding the 1994 ASPA Summer Convention and Field Days, contact: Tom Ford, ASPA, 1855-A Hicks Road, Rolling Meadows, Illinois, 60008; or call 708-705-989; or fax 708-705-8347.



Maureen Thompson

CelPril adds to presence in West

CelPril, a surveyor of seed coatings and seed enhancements, has bolstered its marketing representation in the western U.S. by adding a seed and crop chemical marketing professional, Maureen Thompson.

Thompson has served as a district sales manager for Funk Seeds International, an area sales representative marketing agricultural chemicals for Farmers Marketing Corp., and a sales representative for the Gowan Company in Arizona which markets and distributes agricultural chemicals.

She will be responsible for sales and marketing of CelPril products in Washington, Oregon, California, Arizona, Nevada, Utah, Idaho and New Mexico.

In addition, Joe D. Burns, professor emeritus, Plant and Soil Science, University of Tennessee Agricultural Extension Service, has joined CelPril as special research and marketing associate. Burns will also work with the agricultural extension service and its county agents in addition to serving as CelPril's national university liaison.



Highland Bentgrass

The winner on fairways

Highland Colonial Bentgrass is the high performance veteran of golf course fairways, greens and tees.

Experts like Dr. Roy Goss and S.E. Brauen have clearly demonstrated that blending Highland Colonial Bentgrass with modern creeping bentgrass can result in excellent quality when cut at 3/4 inch on fairways. In their research, blends with Highland resulted in turf quality improvements of .56 on a scale of 1 to 10 in comparison to creeping bentgrass seeded alone.

For a free brochure on this fairway trial and information on an inexpensive way to improve your overall turf performance and appearance write to:

Highland Colonial Bentgrass Commission
Post Office Box 3366
Salem, Oregon 97302



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- Used PGA 1992 - Senior Skins 1994
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- Fits Toro, Jacobsen, Lesco & Bunton

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CIRCLE #144

Jake honors its dealers, distributors

DALLAS — The annual Jacobsen award ceremony was held in February, during the GC-SAA Conference and Show here. Among the winners:

S.V. Moffett Company, Inc. of West Henrietta, N.Y., received the Jacobsen Golden Reel Award, signifying six selections as a Jacobsen Dealer of the Year. The Golden Reel Award recognizes long-term sales and service excellence.

B&E Turf-Aid Distributing, Inc. of Billings, Mont., was honored by Jacobsen as a Dealer of the Year for 1993, in recognition of B&E's superior sales and service efforts.

Baker Vehicle Systems, Inc. of

Macedonia, Ohio, was also named a Dealer of the Year for its outstanding sales and service record. President Harland Baker was on hand to accept the award.

Intermac S.A. of Buenos Aires, Argentina received a 1993 Jacobsen Distributor of the Year award. InterMac distributes Jake products in Argentina, Chile and Uruguay and the award recognized the firm's high level of sales and customer support.

In other Jacobsen news, **Mark Williams** has been named the company's business development manager. Williams is now responsible for the development of



Mark Williams



Tony Tredente

Jacobsen dealers and distributors worldwide. He will also handle sales forecasting and sales administration.

In another personnel move, **Tony Tredente** has been named regional sales manager for the company's south-central U.S. territory. Tredente previously worked as territory manager in the turf industry and also has experience in distributor sales.

Rivers Associates tackles Florida market

Rivers Associates has announced its expansion into Florida. The firm will represent Amiad Filtration Systems, Orbit Professional Turf Products, Plastro, Weather-Tec Corp. and other irrigation-related manufacturers.

Tom Rivers, president of the South Carolina-based corporation, says Phil LeBlanc has joined the firm to cover the Florida market.

"I am excited about tackling

the dynamic Florida market and even more so about Phil joining our team," said Rivers. "Phil LeBlanc has over 20 years experience in our industry and his experience at James Hardie Irrigation and Rain Bird International will be invaluable to our efforts."



Tom Rivers

For more information, contact Tom Rivers, Rivers Associates, 410 Taylor Street, Anderson, S.C. 29625, or call 800-225-6078; or fax 803-225-0103.

Aquaterra: New CEO, offices

Continued from page 53

had been the credit manager for the 10 subsidiaries of International Recovery Corp., a \$250 million New York Stock Exchange company engaged in aviation fueling services, used oil recycling and environmental services.

Earlier, Nissenfeld was President of Misal Industries, a South Florida-based apparel manufacturer, and chief financial officer of Textile Prints of Florida, Inc.

AquaTerra and its subsidiary companies now occupy 17,000 square feet of office and warehouse space in the Gateway Industrial Center at The AquaTerra Building, 6500 NW 15th Avenue.

The company's new Cypress Creek location nearly doubles the space formerly occupied by AquaTerra, which employs 100 people statewide, most of them in Broward County.

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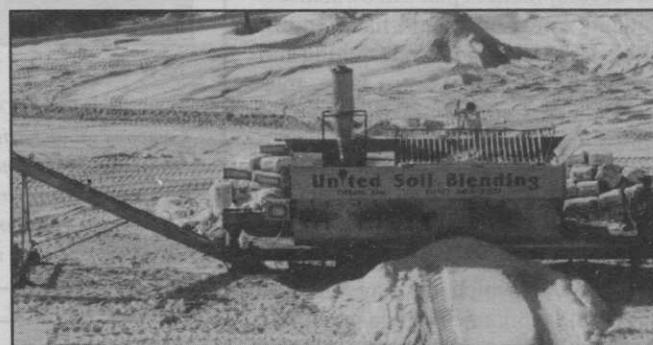


GOLF COURSE IRRIGATION NATIONWIDE

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CIRCLE #147



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- Highest quality blending
- Constant on-site monitoring of mixing operation
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- Complete turn-key pricing
- LOWEST PRICING — including loader and all labor

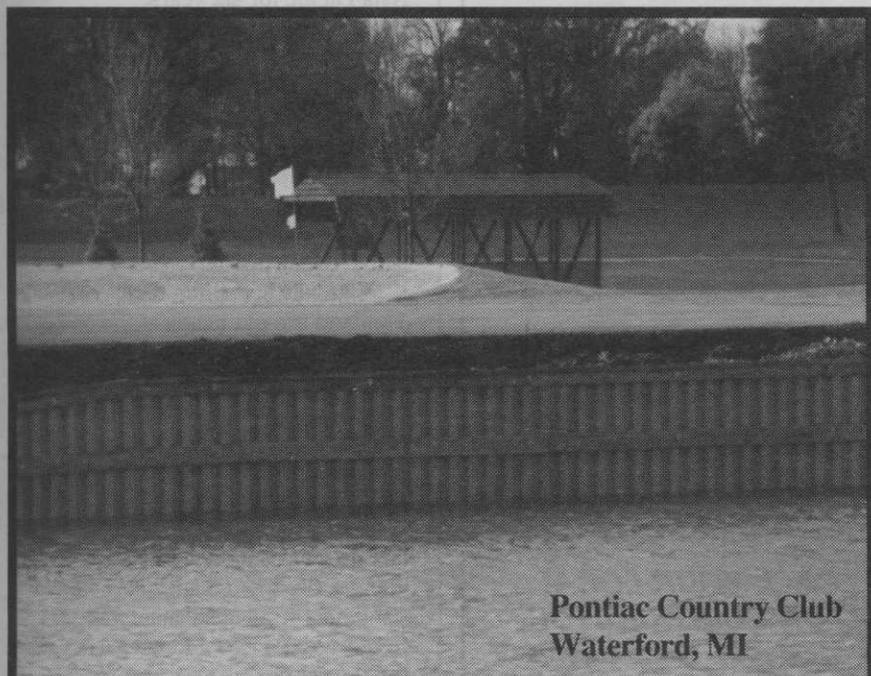
Soil blending is a must in the high-tech business of golf course construction. And United Soil Blenders, Inc. strives for excellence in every green construction project we undertake.

For the Best greens ever, insist on United Soil Blenders, Inc.

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CIRCLE #148



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C-LOC® Developed and introduced the first vinyl plastic interlocking panels for soil retention applications

Panel Features:

- Attractive appearance
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CIRCLE #149

What drives a man who constructs golf courses?



The love of golf. The pride of a job well done.

And what's his tool of preference? The Dyna-Drive™ rotary surface cultivator. Of course.

John Cotter, president of Wadsworth Golf Course Construction Company, Plainfield, Illinois, is proud of Wadsworth's work. Some of that pride is because of the Dyna-Drive.

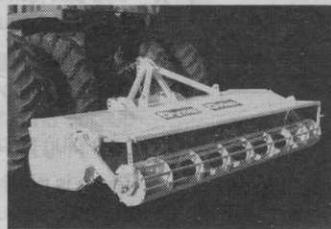
John says this about Dyna-Drive. It follows the contours of a course better than a disk. It doesn't compact the soil like heavier equipment. It's sturdy, built to last. And it pulls with only an 80 horse tractor.

Maybe that's why Wadsworth owns five of them with more on

order. He adds that more people would buy Dyna-Drives if they could see them in action and that architects, engineers and designers should specify them. We appreciate his honesty.

We can't add much to John's comments except its tines are self-cleaning, and it comes with no PTO, wheels, axles, tires or gearbox so it's truly low maintenance.

See one for yourself and get on the right course. See your local dealer or contact:



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815-539-9371

CIRCLE #150

SP Systems brings suit against Solo

LOS ANGELES, Calif. — SP Systems, Inc., which markets and distributes backpack sprayer equipment for the lawn and garden, and golf markets, has filed suit against another sprayer manufacturer, Solo Inc. of Newport News, Va., and its parent corporation, Solo Kleinmotoren, GmbH, for corporate defamation, intentional and negligent interference with economic advantage, common law unfair competition, and violation of the California Business and Professions Code.

In its complaint, SP alleges that Solo made "false, misleading, and deceptive accusations in order to thwart and/or curtail the development of plaintiff's business. Defendants knew or should have known that their accusations of counterfeiting and trademark infringement were false, misleading, and deceptive."

Representatives of Solo, offered a chance to comment on the suit, did not return phone calls from *Golf Course News*.

SP is requesting a preliminary injunction against further accusations and interference by Solo which have resulted in "considerable economic and non-economic damage" in the form of "the loss of actual and potential customers and the loss of goodwill within the industry," according to court documents. The company is also seeking punitive and exemplary damages in the amount of \$5 million, as well as costs and legal expenses, for harm that has been caused to date, according to Ferro Pagliani, president and founder of SP Systems, Inc.

"Solo has been engaged in a malicious campaign to systematically keep SP's products out of the marketplace," stated Pagliani. "The fact remains that there are more than a dozen items of correspondence and legal agreements dating back to 1973 which substantiate our right to market and distribute our products in the U.S. and Canada."

"As SP products have begun to take a major share of the North American market, Solo has acted as if the legal agreements did not exist."



NEW PRODUCT OF THE MONTH

The Turf Runner 300 fairway sprayer, new from Mid-Atlantic Services, features a John Blue Company ground-driven, variable-stroke pump designed to assure accurate spread, completely independent of ground speeds, pressure or tip wear. Standard features include a 300-gallon poly tank, 25-foot hinged truss boom with fore/aft breakaway & auto set, separate full-tank length sparger agitation, and pressure capability up to 120 psi. For more information, call Mid-Atlantic at 1-800-637-0050. For more new products, see page 58.

West Coast Turf acquires Foster via RTC

PALM DESERT, Calif. — West Coast Turf, California's largest grower of hybrid bermudagrass, has acquired the assets of Foster Turf Products through the Resolution Trust Corporation, effective immediately.

The acquisition of Foster Turf's sod inventory will enable West Coast Turf to meet the ever-increasing demand for hybrid Bermuda this spring. West Coast Turf specializes in the application of warm season grasses on golf courses and sports fields, as well as serving the growing needs of landscape contractors.

Foster Turf was founded in 1980 by West Coast Turf president John Foster

and vice president Joe Foster, and was later sold to Landmark Land Company in 1985. The Fosters then started West Coast Turf in 1990, whose many projects have included repairing Candlestick Park's field for the 1993 NFL Championship Game and at the Rose Bowl for the 1993 Super Bowl, supplying the sod for the renovation of Santa Anita Race-track, contract growing bentgrass for the site of the 1995 PGA Championships at The Riviera Country Club, air freighting 90,000 square feet of washed bentgrass sod to Club Campestre de la Ciudad de Mexico, and sodding the greens for Big Horn, the home of the Skins Games.

Jacklin's Dr. Brede joins board of Agronomy Journal

Dr. Doug Brede, research director for Jacklin Seed Company in Post Falls, Idaho has been appointed to the editorial board of *Agronomy Journal*, the official publication of the American Society of Agronomy. Having published more than 100 papers on turfgrass science himself, Brede will have the honor of serving as associate editor for a three-year term.

As research director at Jacklin Seed, Brede oversees breeding and development of new turfgrass cultivars. Recent releases under his direction include NuStar Kentucky bluegrass, Advent perennial ryegrass, Ecostar hard fescue and Pixie tall fescue. Brede also conducts studies on cultural methods for enhancing seed yield and seed quality of turfgrasses. Prior to joining Jacklin Seed in 1986, Brede was associate professor of turfgrass management at Oklahoma State University.

JacklinGolf, abroad

Continued from page 53

firm constructing all four are the Jacklin partners, said Yanagisawa.

"We are 80 percent finished with the joint venture," he reported in early February. "And a branch office will open in Xiamen soon after."

While the parent company continues to be one of the world's most visible suppliers of warm- and cool-season grasses — exporting to 39 projects outside the U.S., 21 in Asia-Pacific — JacklinGolf is making a separate name for itself by leading developers new to golf through the process.

Other seed companies have created golf components, separate divisions that deal exclusively with the golf course industry and directly with superintendents. However, JacklinGolf has taken the most aggressive overseas stance. The firm has maintained a presence in Asia-Pacific for six years.

"We don't just sell seed," said Yanagisawa. "We view ourselves as consultants. We do everything."

"Owners and developers [in developing nations] have no contacts. Seed is often the last thing they think of. Of course, we provide that, as well. The only thing we don't provide is financing and actual construction."

Relatively speaking, Singapore and Thailand are old hands at the golf game, having entered the recent golf boom in its early stages. JacklinGolf was there, providing seed to several courses in both countries. But with Singapore almost fully developed and Malaysia close behind, JacklinGolf is looking for virgin territory.

According to Yanagisawa, the company has already secured work on two projects in India, two in Vietnam and another in Cambodia — all destination resorts.

Does Yanagisawa foresee a day when the tourist pool dries up?

"I don't think so," he said. "The European recession has inflated the economies of Portugal, Spain and Turkey — places where Europeans used to vacation. They are looking for new, exotic places. The market is strong, especially golf course resorts."

"And we have the knowledge — Europeans don't know how to do this stuff."

THE GLEANER: a core plug pusher



MODEL JP

SPECIFICATIONS

1. Two section blade will follow the contour of any golf green or tee.
2. Three-inch foot pad coming off blade helps catch and push plugs off greens and tees.
3. Unit will not damage green because of articulation of blades and foot pad area on bottom.
4. Blade width is 72 inches.
5. All heavy gauge metal.
6. Weight is 70 pounds.

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 2. Easy to mount and dismount from your greensmower.
 3. Buy one and keep it 'til you retire.
 4. Savings in time and labor will pay for your new plug pusher WITH ONE AERATION!
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Range Yardage Banners from Markers, Inc.

Markers, Inc. has applied its patented ground socket and removable marker concept to a new line of products for driving ranges. The Range Finder Yardage Banner Sets clearly identify distances on driving ranges and offer easier installation, permanent location and removable accessibility for unimpaired mowing or ball retrieval.

The Yardage Banner Sets have four 26-inch x 33-inch bright yellow banners with 20-inch black numbers (100, 150, 200, 250) for maximum visibility. The banners

are made of a vinyl material reinforced with polyester threading for longer-lasting durability and come complete with frames and ground sockets at no extra cost. Single banners with other yardage increments complete with frame and ground sockets can also be purchased and screened upon request.

For more information, contact Markers at 33597 Pin Oak Parkway, Avon Lake, Ohio 44012; or call 216-933-5927.

CIRCLE #301

Shoe placements for Gandy overseeder

The Gandy Company has introduced a shoe placement assembly for its overseeder. Independent spring-loaded shoes follow in the slit, created by the cutter blades, and adjust for minor changes in ground contour. Seed placement directly behind each shoe permits more seed, approximately 95 percent plus, to be placed directly into the slit for increased seed-to-soil contact.

The Gandy unit can be ordered as the dethatcher only, Model 2848DP, or as an integrated overseeder, with either the currently available disc opener assembly Model 2848SS or the new shoe placement assembly Model 2848SA.

For more information on the overseeder, write Gandy Company, 528 Gandrud Road, Owatonna, MN 55060, or call 1-800-443-2476.

CIRCLE #302

Pennington unveils Dwarf Bermuda

Pennington Seed, Inc. has announced the release of Yuma Dwarf Seeded Bermudagrass. Yuma was developed by Judy Breede with Innovative Turf Research. The rights to the variety were acquired by Pennington Seed from Starborne Seed, Inc., the successor to Innovative Turf Research.

Yuma is a dwarf cold tolerant bermudagrass that is lower growing and bred to feature a finer textured appearance. Trials for Plant Variety Protection data show Yuma to be superior in color, texture and turf density. The variety's superior cold tolerance allows it to be used well above the current bermudagrass area of the United States. Certified production fields are now planted. Commercial quantities of seed will be available late in the summer of 1994. Limited quantities of seed are available in the spring of 1994.

For more information, contact Pennington at P.O. Box 290, Madison, GA 30650.

CIRCLE #303

Sharpening compound for dull reels

Parkway Research of Houston, Texas, has introduced its new True Grit Reel Sharpening Compound. True Grit is a ready to use pre-mixed gel that contains the highest quality silicon carbide grit for effective sharpening of reel mowers. True Grit has excellent cling, but washes off beautifully and is water soluble. For additional information and a free sample call 1-800-256-3668 or write to 13802 Chrisman Road, Houston, Texas 77039.

CIRCLE #304

Fuel, temp gauges for golf cars

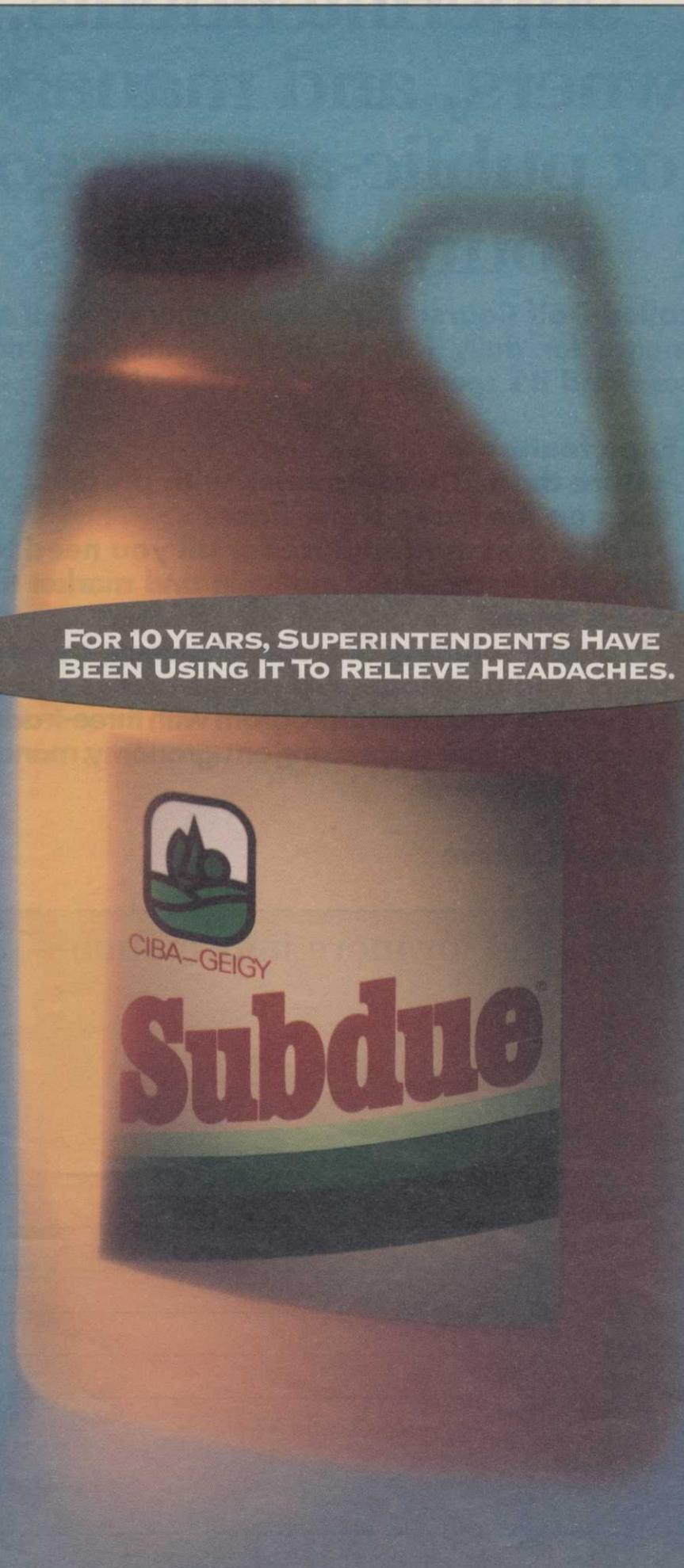
A family of solid state gauges with advanced features has been developed for golf cars and other golf course equipment powered by internal combustion (I/C) engines.

The new family includes a fuel gauge, temperature gauge, hour meter and a combination fuel gauge and hour meter in a single case. All models are housed in matching 52mm round cases.

Among features that OEMs wanted in I/C gauges are solid state circuitry with no moving parts, self-illuminated displays of tri-colored LEDs or LCDs with digits 5mm high, blinking-light warning signals on the fuel and temperature gauges, and high reliability under vibration and other stresses. The illuminated displays also serve as ignition-on indicators. Hour meter memory is retained without need of a battery. For more information about the new Curtis gauges, call 914-666-2971.

CIRCLE #305

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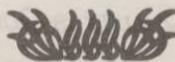
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MacDonald comment

Continued from page 11

as a link between the downtowns and the Park, and a buffer to the natural values preserved within Acadia.

In Northeast Harbor, the private golf club is set amidst a network of trails that link the different parts of the village to the Park and to town-owned land on Schoolhouse Ledge. Weathered cedar signs directing a hiker to Norumbega Mountain or Hadlock Pond stand beside the clean white arrows directing the golfer to the next tee. I know one woman who is a full-paying member of the club, not because she plays golf there, but because she walks her dogs there on her way to the trails of Acadia.

Kebo Valley Golf Club in Bar Harbor is a public course renowned for its history and scenery, but it is probably best loved by locals for its sledding hills, in particular the famed Big Bunker on number 17 — where President William Howard Taft once took a 17.

Like the Northeast Harbor links, Kebo is strategically placed between fully-developed residential areas and the pristine woods of Acadia. Numerous hiking trails and the popular Park loop motor road are within a wedge of Kebo's back nine.

Unlike the other two courses, the Causeway Club in Southwest Harbor includes shorefront property, wrapping around the eastern shore of Norwood Cove and linked to a nearby peninsula by a granite causeway and foot-bridge. The causeway itself — and its continuation onto club land — is one of the most scenic spots in the area, providing a favorite loop walk from the village, with views out to the Western Way and islands beyond.

All three courses are great places to play golf; the other traditional uses enjoyed by locals do not compromise the clubs' ability to serve their members. Golf clearly comes first here, yet the season is short in eastern Maine and the general public is able to enjoy the benefits of the open space year 'round.

...

Until I began working in the field of land conservation, I never considered that golf courses might not always remain as open spaces. But as I talked to more landowners struggling to hold onto their long-time family properties in the face of soaring real estate and inheritances taxes, it only figured that golf clubs might feel the pinch, too.

Maine's regressive property taxes places a great burden on the land by assessing properties, not according to their current use, but rather by looking at a property's "highest and best" potential use, financially — which, in most cases, is development. Golf courses here on Mount Desert Island are facing increasing tax revaluations and, by implication, the longer-term pressure to sell pieces of their holdings to help pay the bills. It has already happened on plenty of courses in other parts of the country.

Like farmland, golf courses possess qualities that make them especially attractive for development: good soils, easy access, land already cleared of trees and leveled for building sites and, of course, the amenity of the adjacent open space.

Owners and managers of golf clubs that have maintained these areas as successful courses and valuable open spaces deserve our thanks. They should also be urged to consider conservation options to ensure that future generations are able to enjoy the public benefits of open land.

Our nearby golf courses seem like local parks for at least half the year. My own experiences of fishing in Hadlock Brook, sledding on Big Bunker, and watching the tide rush in and out beneath the Causeway indicate to me how much these places mean to our local communities. The open space values of golf courses will only grow with time; their fates should not be left to chance.

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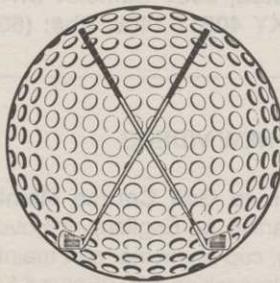


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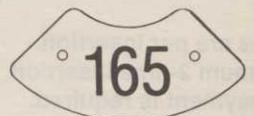
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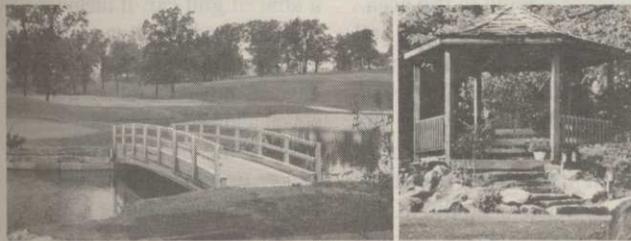
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Course photography

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"We do a lot of sales of photos back through the pro shops," Klemme said. "They use them for decorations and sell them to members and guests. It's a great marketing tool because it ends up on a golfer's wall in his office. Visitors ask where the photo was taken, and it works as word-of-mouth advertising."

Golf course personnel "needs to understand just how important it is that they work hand in hand with the photographer to make sure everything is done correctly because of the power of these photographs," he said. "If a picture is published somewhere and it's not perfect, it reflects on everybody—the developer, superintendent, head professional and golf course architect."

"People need to be very careful about their image. No matter who they choose to photograph their course, they need to make sure they control these images better."

From a promotional standpoint, the best time to bring in a photographer, the two agree, is three or four months prior to opening. That, Klemme said, is "for a light, one- or two-day shoot. Get some good shots of the signature hole and the environment around the course. Capture the overall feel of the property to give people a sense of place."

Then, at the opening or within six months afterward, a more detailed picture session should be set up, where all the holes are photographed.

Corporate memberships at public courses

By PETER BLAIS

SAN ANTONIO, Texas—Public course owners seeking ways to attract corporate customers might want to consider something similar to The Quarry Corporate Card.

The card provides a local company with a convenient means for business associates and key employees to play at a high-quality course without having to invest in private club memberships.

For the club, it provides thousands of dollars in up-front capital and course exposure to some of the highest-income professionals

and business people in the area.

"It's very attractive to men and women over 30. They often have good enough incomes to join a private club, but don't have the time to get the full benefits from a private facility," said Courtney Connell, head pro at the Keith Foster-designed layout, which opened several months ago. "They are treated like members and get to play a course that is as good or better than any private club."

The Quarry Corporate Card provides 50 rounds of golf (25 weekdays and 25 weekends) with

a shared golf car. It includes unlimited practice area privileges, early tee-time reservations (eight days in advance rather than the seven allowed regular players), access to the new clubhouse, free locker usage and shoe shine service. The card is valid for 12 months.

The cost is \$2,700, a 10-percent discount over regular green fees. A portion of the cost *may* be tax-deductible as a gift to clients.

"It sounds like an innovative program," said Michael Hughes, executive director of the National Golf Course Owners Association.

"It could be especially effective if a developer wanted to sell *some* memberships. Getting high-profile people onto your course is the first step toward selling memberships."

Connell agreed, but said The Quarry has no plans to sell memberships.

"We have a big enough job just filling the demand for public play," the head pro said. "The program is designed to recognize the importance of our repeat customers and give them a break. We want to give them the opportunity to entertain clients and valued employees at a nice club."

Connell sold a dozen cards through the first week of March and expected to sell another 20 by mid-month. The goal is to sell 100 and then review the program.

"Many of the banks and hospitals have called. They want to buy two at a time and get more as they need them," the head pro said.

"Getting the money up front and collecting the interest is nice. But the biggest benefit is establishing close relationships with corporate people and discovering what you can do for them."

The only potential drawback, according to Hughes, is the 10-percent discount.

"The problem with discounts is that it creates the mentality in the mind of the consumer that no one should pay full price," the NCGOA director said. "Discounts should be used only to fill in down times if at all."

"In Florida, for instance, you have these golf-around discount cards all over the place. In some places you can use them 12 months a year and they are damaging the market."

Connell acknowledged that discounting is a legitimate concern. The corporate card is the only discount The Quarry offers on its \$55 weekday and \$65 weekend greens fees. The 10 percent is a minor amount and is intended simply to thank corporations for committing to the club, he added. The card also requires golfers to play half their rounds on less-busy weekdays.

Has the program been successful? Two new San Antonio courses scheduled to open within the next year, La Canterra and Silverhorn, have expressed interest in offering similar programs, Connell said.

What is it they say about imitation being the sincerest form of flattery?



The 17th at the Quarry, where this daily-fee course is accepting corporate memberships.



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Spring is the best time to prevent summer dry spot.

You've probably seen those irregular areas of turfgrass that show signs of drought stress. Localized Dry Spot (LDS)—with its characteristic wilting and turf death—usually shows up at the height of the golf season. But the best time to control the problem is in the spring. LDS is characterized by an

irregular area of turfgrass that for no apparent reason begins to show signs of drought stress. The condition is most prevalent on sandy bentgrass greens, but it can also occur on fairways. Infrequent or reduced watering of golf greens increases the problem, but the symptoms may occur right after irrigation.

According to another Michigan State University study, it is now thought that these dry spots are the result of hydrophobic soil where a non-wettable organic coating of sand particles causes soil to repel water instead of absorbing it.

Once soil moisture levels decrease in hydrophobic

soils, rewetting the soil can become very difficult. The condition has been compared to normally absorbent peat shedding water when it is totally dry.

By applying wetting agents to the soil in the spring, you can increase the soil's ability to absorb and hold water—and prevent it from drying

out. Whether the summer is wet or dry, applying a wetting agent in the spring can promote better utilization of water.

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