

GOLF COURSE NEWS

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INSIDE

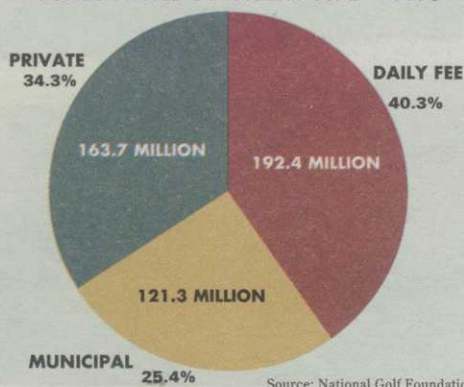
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It's a Small (Turfgrass) World

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PUBLIC ROUNDS ON THE INCREASE

From 1986 to 1996, approximately two out of every three rounds were played at public-access golf facilities. The most growth occurred at daily-fee facilities, where the number of rounds increased by more than 23 percent.

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Audubon jumps into course development

By MARK LESLIE

SELKIRK, N.Y.—When Audubon International (AI) entered the world of golf, no one would have dreamed of the heights it is about to reach — no one except, perhaps, President Ron Dodson.



Ron Dodson

AI has created the Audubon International Golf and the Environment Land Trust to accept "real property interest" that will be used to facilitate development of Audubon golf

courses as environmental research and demonstration centers.

"We asked, 'Who better to implement our beliefs than us?'" said Dodson. "One of the criticisms we've had about our Cooperative Sanctuary System is that we

have no assurance that our

Continued on page 17

One-stop equipment deals on rise

By M. LEVANS

BLOOMINGTON, Minn./LINCOLN, Neb. — As the industry sees more courses gathering under management umbrellas, the number of exclusive provider deals between management companies and manufacturers — including equipment, equipment maintenance and ancillary services — appears to be following suit.

In the past month, both the Toro Co. and Ransomes America Corp. have added substantial new agreements to their growing list of exclusive arrangements.

Toro cut a five-year deal with Whitbread/Marriott

Continued on page 48



ROLLIN' ROLLIN' ROLLIN'

A crew unrolls sod along a fairway of The Links at MonteLago at Lake Las Vegas Resort. Story p. 36.

Public Golf Forum sessions take shape

Maintenance Track: Technology steps into the spotlight

By MARK LESLIE

OAK BROOK HILLS, Ill. — Pioneering technology for quickly "mapping" a golf course to optimize irrigation and chemical and fertilizer applications is one of several topics in a full package of maintenance sessions planned for the 1997 Public Golf Forum here, Oct. 27-28.

Golf course superintendents around the country, taking advantage of special registration offers, are ex-



A NATIONAL BUSINESS CONFERENCE AND EXPO FOR SUPERINTENDENTS, OWNERS, MANAGERS, AND DEVELOPERS OF PUBLIC-ACCESS GOLF FACILITIES

pected to attend the forum at Oak Brook Hills Resort for public-access golf course superintendents, owners, operators and developers.

Along with a half-day session on "Biological Controls: Current Status and Future Prospects," led by Dr. Eric Nelson of Cornell University, they

Continued on page 19

Development Track: Player development can't be overlooked

By M. LEVANS

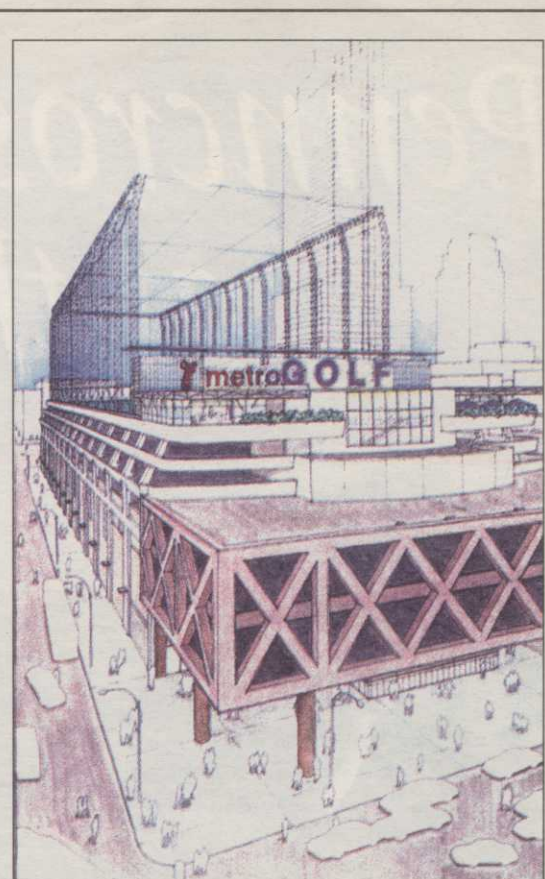
OAK BROOK HILLS, Ill. — Public-access golf courses are being developed in record numbers while player participation numbers remain stagnant.

Now, how are you going to develop a public course that will allow you to establish a solid customer base — and keep those customers coming back for more, giving you a faster return on your investment?

Continued on page 54

TAKING GOLF TO THE STREETS

MetroGolf Inc., a Denver-based developer of golf learning centers in major metropolitan areas, has unveiled renderings of MetroGolf New York, a golf center to be built atop the Port Authority Bus Terminal located in the heart of midtown Manhattan at 42nd Street and 8th Ave. See story page 40.



Pennncross is Picture Perfect at the Ryder Cup



Fourteenth hole, Valderrama, Marbella, Spain. Ryder Cup '97 golfers play on Pennncross, the world's most specified putting green grass.

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BRIEFS

ATHENS, Ala. — The financially troubled Athens Country Club is up for sale to the highest bidder. The 40-year-old facility, located in the southern section of the city, consists of a nine-hole course, swimming pool, tennis courts, clubhouse and 50 acres. The main reason for the sale is a drop in membership. The club actually was considering expanding earlier this year, but the proposal failed. The long-time private club is open for public play for the first time to increase revenue.

•••

CHASKA, Minn. — The Chaska Town Course, a public 18-hole layout designed by Art Hills, is set to open later this month. The course — Hills' first design in Minnesota — offers two nines with distinct character. One nine is primarily a wide-open, links-style layout with few trees and lots of natural grasses and floral vegetation adding definition. The other nine is more parkland style with ponds, marshes, ravines, and trees. The course is a mile west of Hazeltine National, site of the two U.S. Opens.

Homeowners, developer go to court over future of Biltmore Hotel GC

PHOENIX, Ariz. — The owner of the Adobe Golf Course at the Arizona Biltmore Hotel, which plans to develop housing on the land starting in the year 2000, has filed a suit against one of the Biltmore neighbors who is leading opposition to the plans.

Kabuto Arizona Properties, which says it has the rights to develop the course into 112

homes as of the year 2000, has filed a suit against Jack Londen, a Phoenix businessman and leader of neighborhood opposition to Kabuto's plans.

Kabuto has become involved in a struggle with supporters of the course — homeowners abutting the course, some city officials and longtime golfers — over the future of the site. After

announcing plans to develop the homes, which drew heavy criticism from certain groups, Kabuto has since indicated that the course could remain if someone compensates it for the valuable land.

Meanwhile, the city has been attempting to create a new zoning designation for the course site that would prevent it being

developed into homes. Kabuto has said that such a move would unfairly rob it of development rights to the property. Kabuto says neighbors of the golf course agreed several times over the past 35 years that the course would be preserved only for an indefinite time and knew that development could happen in 2000.

Why on-site fermentation for beneficial soil bacteria is overkill

A huge investment in on-site fermentation systems is made unnecessary by a new controlled-dose microbial inoculant that can be even more effective



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* Cook and Baker 1983. The Nature and Practice of Biological Control of Plant Pathogens. The American Phytopathological Society, St. Paul, MN.

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Granite Golf Group buys Brassie, COPM

PHOENIX, Ariz. — The Granite Golf Group, Inc., continues to grow.

In late July, Granite bought Club Operations and Property Management (COPM) and Brassie Golf Management Services, Inc. from Brassie Golf, a move which included 20 golf courses and boosted Granite's golf course management portfolio to 26 facilities. Then, on Aug. 14, Granite announced new management contracts with four additional courses — two of which are still under construction — to bring the total to 30.

Granite Golf is a 2-year-old company that has lined up \$100 million in financing to buy golf courses and management contracts over the next two years. It now manages 11 courses in Florida, four in North Carolina, four in Ohio, two in South Carolina, as well as courses in Louisiana, New Jersey, Tennessee, Colorado, New York, Texas, Virginia, and Minnesota. Granite also has consulting arrangements with a course each in Arkansas and Michigan.

"Our goal is to expand our management profile and this gives us a chance to do that," said Brad Parsons, vice president of development for the Granite Golf Group, which has offices in Phoenix, Toronto and Orlando, Fla. "We're trying to grow our management side in two ways, one by adding individual contracts, the other is by buying or folding other management companies into ours."

One outcome of the late July COPM-Brassie acquisition is that William Horne, who founded COPM in 1981 and has been a high-profile golf management executive for many years, has become chief executive officer for the fast-expanding Granite Golf Management division. Horne, who has provided consulting services to more than 200 golf courses in 11 countries, will team with MG Orender, chief operating officer of Granite Golf Management, to oversee the business development and daily operations of the management group, according to Parsons.

Parsons said Brassie still owns several golf courses and that the two companies are "having discussions regarding some or all of them." He also said Granite is actively talking with other golf course management groups across the country that have anywhere from three to 20 courses in their portfolios.

Prior to the recent flurry of activity, Granite's earlier management contracts were primarily with mid-range greens fee public courses. Many of its new courses formerly with Brassie are high-end daily fee facilities or private golf and country clubs.

"We're not attempting to be American Golf," Parsons said, "but we are trying to grow our company."

As a result of recent acquisitions, Granite Golf Management will oversee management operations of the following golf courses formerly under contract with COPM and Brassie Golf Management Services: Capital

City CC, Tallahassee, Fla.; The Club at Eaglebrooke, Lakeland, Fla.; Lone Palm CC, Lakeland, Fla.; Miramar Beach and Tennis Club, Bonita Springs, Fla.; Panama CC, Gulfport, Fla.; Southern Dunes G&CC, Haines City, Fla.; Village Club at Sands Point, Sands Point, N.Y.; Smoky Mountain Golf Club, Whittier,

N.C.; Starmount Forest CC, Greensboro, N.C.; The Gauntlet at St. James Plantation, Southport, N.C.; The Members Club at St. James Plantation, Southport, N.C.; Kettenring CC, Defiance, Ohio; Riviera CC, Dublin, Ohio; Westchester Golf Course, Canal Winchester, Ohio; Florence CC Florence, S.C.; Sea Pines CC, Hilton Head, S.C.; The Gauntlet at Laurel Valley, Tigerville, S.C.; The Gauntlet at

Myrtle West, North Myrtle Beach, S.C.; Ridgeway CC, Memphis, Tenn.; and The Gauntlet at Curtis Park, Fredericksburg, Va.

Granite also has new management contracts with the Golf Club at Westchester, Canal Westchester, Ohio; Westbrook Golf Club, Mansfield, Ohio; Royce Brook CC, Somerville, N.J. (under construction); and Tunica Biloxi Indian Resort GC, Marksville, La. (under construction).



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City Council says no to Los Angeles golf developer

LOS ANGELES — In what is considered a stunning victory for environmentalists and a union local, the Los Angeles City Council recently denied a permit to a developer looking to build an 18-hole course on the environmentally-sensitive banks of the Big Tujunga Wash. The decision comes after nearly 10 years of

emotional debate about the site and proposed golf course development there.

An attorney for the project developer, Foothill Golf Development Group, told the *Los Angeles Times* it is very likely his client will sue. He said the council's decision, which rejected unanimous approval by

the Planning Commission, violated the developer's rights to use the property for economically viable reasons. The Foothill group and the property owner, Cosmo World Corp., has struggled with federal and local officials for nearly a decade to build a golf course. Cosmo World is headed by Japanese golf magnate Minoru Isutani.

If the case does go to court and a judge finds in favor of the developer, it's possible the city would be forced to approve the project or buy the land, and possibly, pay damages.

Environmental supporters, including the California Department of Fish and Game, the Sierra Club and the Audubon Society, strongly opposed the 352-acre project, mostly on the

grounds that it would reduce an already precious amount of truly open space in the area and destroy one of the last remaining habitats of the endangered slender-horned spineflower. The developer eventually made several concessions to increase the amount of open land, but ultimately failed to sway the council.

Some observers, including the developer, said the council's decision was strongly influenced by pressure from a local union of hotel employees and restaurant employees. The 7,500-member group opposed the project largely because the golf course project would benefit a large lien holder on the property, Kajima International, which is involved in a prolonged dispute with the union that is trying to organize employees at Kajima's New Otani hotel in downtown Los Angeles. Kajima was actually the original developer of the project, but was replaced by Foothill Golf after a financial dispute with Cosmo World. Kajima put an \$18-million lien on the property, claiming Cosmo World still owes the firm money.

Dubsdread to undergo yet another major renovation

ORLANDO, Fla. — The beleaguered 18-hole Dubsdread Golf Course, which has struggled in recent years and already undergone millions of dollars in renovations, is headed for another major project that could cause a troublesome drop in golfers this fall.

City engineers plan to tear up a third of the holes at the 75-year-old course to improve drainage. The project, expected to cost more than \$378,000, could begin in October, about the same time the city is expected to pick a new management team to run the facility.

City officials have become increasingly unhappy with Dubsdread because it has lost more than \$2 million since a \$4.5 million makeover in 1991. Earlier this summer, the city council decided to seek bids from private management firms to operate the course, which the city has run since buying it for \$1.2 million in 1978.

The new project is aimed at relieving stormwater runoff problems for homes along the course and improving course drainage. The project is expected to be finished by December, although temporary greens and tees will be set up on many holes, which may cause a dropoff in golfers and revenue from greens fees.



Albuquerque's Ladera Muni on road to recovery

ALBUQUERQUE, N.M. — The Ladera municipal golf course had long been considered the worst of the city's three major municipal layouts. Last year, in fact, the course was in such bad shape that golfers in the annual men's city golf championship were actually allowed to tee the ball up in the fairways.

But 18 months later, through the hard work and vision of two father-son teams, a hardworking superintendent and crew and committed city officials, Ladera is on its way back. One golfer told the *Albuquerque Journal* that the course was "200 percent" improved. Another said the course was well-run, organized

and beautiful.

Sam and Wright Zimmerly and Billy Moya Sr. and Billy Moya Jr., deserve much of the credit for the transformation, along with superintendent Dominic Carmona and his crew. The elder Zimmerly and Mora were once among the top professional golfers in the state.

Moya, Sr., who is 73, has been in the golf business all his life. He came out of retirement to run Ladera with Sam Zimmerly and was appalled by the condition of the course when he first saw it. They soon discovered that the city had been saving money for a new course.

Mora, Zimmerly and Mayor Martin Chavez eventually convinced the city to pump the

money back into existing courses like Ladera.

In the past year, Ladera has gained about 250 new trees, new cart paths and flower plantings. Fairways have been reseeded and the course groomed to near country-club standards. A new fleet of 60 golf cars was purchased. There are also plans for renovating the restaurant and creating a banquet room.

Frustration with Birmingham course grows

BIRMINGHAM, Ala. — More than six months after asking for proposals to renovate the shut-down Charlie Boswell Golf Course at Highland Park, the course remains closed and pressure is mounting on Mayor Richard Arrington.

The course officially closed last November when the Birmingham Park and Recreation Board canceled a contract with Birmingham Greater Golf Associates, the company that was running the course. The action came after Park Board members had complained for months about conditions at the course, which is the former home of the Birmingham Country Club.

According to the *Birmingham Post-Herald*, several companies submitted bids to the Park Board last winter but no action was taken. Several bidders said no one from the city returned their calls or acknowledged any developments on the project.

Ken Wyninger, owner of AKW Golf in Hattiesburg, Miss., was one of the bidders. Wyninger said the course has good potential for renovations and an upgrade, but it needs at least \$1.5 to \$2 million invested in the facility.

Oklahoma track closes for redo

STILLWATER, Okla. — The 18-hole municipal Lakeside Memorial Golf Course has closed for a \$2.3 million renovation.

The course, which opened in 1947, is scheduled to reopen in May 1998 with 12 new greens, almost all new tees, a new irrigation system, and a completed cart path system, according to Bill Nelson, director of Stillwater Parks and Recreation.

Other parts of Lakeside's renovation project include tree removal to improve air circulation around greens and tees, tree trimming, cutting down part of a hill to improve visibility and safety and removing dead trees and stumps.

Australia



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John Deere equipment used to maintain the Hope Island Golf Club include two 3235 Fairway Mowers, four model 22 Greens Mowers, two 1200 Bunker Rakes, and two F1145 Front Mowers.



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Arkansas track should complete \$1m facelift by August '98

FORT SMITH, Ark. — Hardscrabble Country Club closed recently for a \$1 million-plus renovation project and the private 18-hole layout is scheduled to reopen in August 1998 — just in time for a possible Nike Tour event.

Nike Tour officials have reportedly focused their sights on staging a 1998 event at Hardscrabble, and club leaders have approved the idea.

The Nike Tour formerly held an event in Texarkana, on the Arkansas-Texas border, from 1990 to 1995 and has been looking to return to Arkansas since that event folded, according to Dale Antram, vice president of business affairs for the Nike Tour. Antram said the Tour usually likes to make a commitment for several years with a location, in order to build interest and local sponsorship.

Bunton to oversee opening of Tennessee's Bear Trace

HOUSTON — Nancy Bunton, a longtime golf operations manager and former LPGA club professional, has been named by Golf Services Group to oversee its management of four championship Jack Nicklaus-designed courses in Tennessee called The Bear Trace.

Bunton is headed to Crossville, Tenn., site of one of the four courses, to become director of golf operations for the four Nicklaus signature, daily-fee courses being built at state parks across Tennessee. One of the goals of the project, which is similar to the Robert Trent Jones Trail of public courses in Alabama, is to make world-class golf available to the public at an affordable price.

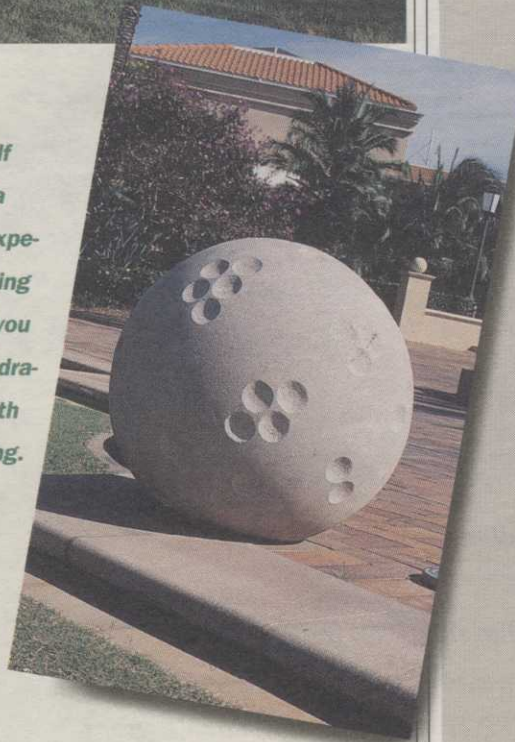
Bunton was most recently general manager and director of golf at Rio Colorado Golf Course in Texas. Her background includes all aspects of golf course and club operations, as well as personnel management. Bunton is a former LPGA Club Professional of the Year (Teaching and Club Division) and is also an instructor for the Gillette LPGA Golf Clinics for Women. She also has extensive experience with junior golf programs.

As preparations continue for the official opening of the first Bear Trace course at Cumberland Mountain State Park in Crossville, Bunton will set up all operating procedures and act as general manager/director of golf for the Cumberland Mountain State Park course.

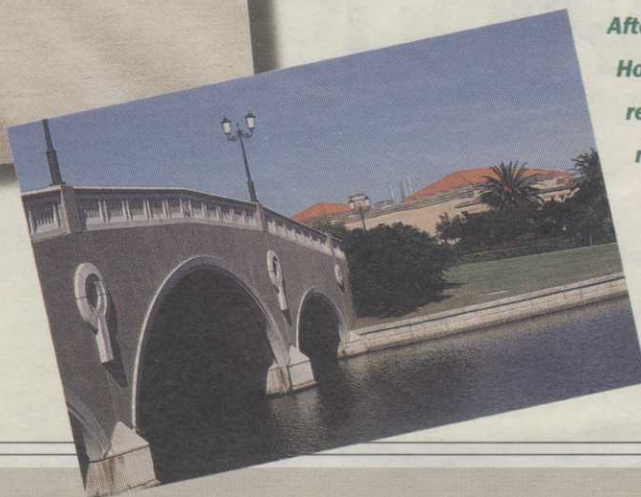
The influence of architect Peter Thomson's five British Open wins is evident at Hope Island with the course's native vegetation, rolling terrain, and 118 British-style pot bunkers.



The Hope Island Golf Club offers guests a number of unique experiences — from floating driving range balls you hit into a lake to a dramatic clubhouse with beautiful landscaping.



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Superintendent Paul Bevan has been part of the beautiful Hope Island Golf Club since construction began five years ago.

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Cincinnati seeks private operator

CINCINNATI — The city's seven public courses are expected to be put out to bid to private operators by this month.

Cincinnati Recreation Commission President Daniel Gilday told the *Cincinnati Enquirer*, "We want to be the courses of choice for golfers in the general area."

The city's recreation commission decided earlier this summer that private firms will get the chance to make proposals to run turf maintenance and all other operations. Firms may pitch to manage both components or just one. City employees may also make a pitch to continue doing turf maintenance. Currently, the commission contracts with golf professionals to manage the courses, hires a firm to handle concessions and uses city employees to maintain the courses.

The move to privatize management of the seven facilities follows a consultant's report released earlier this year that criticized the current system and said a new approach could bring in more money. A city audit also found serious management problems with the city's golf program and led to the suspension of the program's manager and several other disciplinary actions.

Massachusetts proposal moves from Milton to Quincy

MILTON, Mass. — The city of Milton just outside Boston might be out of the golf course business before it ever got in.

Quarry Hills Associates, a group looking to build a 27-hole golf facility, originally wanted to build the course on a landfill and adjacent land straddling the Milton-Quincy border. Now, it appears the Quincy-based company will build an 18-hole layout entirely in Quincy.

Charles Geilich, president of Quarry Hills, said a recent decision by the state inspector general may force the group to drop Milton from its plans.

Quarry Hills had offered to cap the 56-acre Milton landfill and then use the refurbished area as part of a recreational complex. Without the Quarry Hills connection, Milton will have to pay for the capping itself.

Indy developers convert farm into links

MONTGOMERY, Ind. — In yet another example of a growing trend in the golf course industry, Kenny Swartzentruber and six fellow owners recently opened the 18-hole public County Oaks Golf Course on former family farm land.

"I always dreamed of having a golf course in this community,"

Swartzentruber told the *Washington Times-Herald* of Indiana. "The more I looked at this farm, the more I thought it laid real good to have a course without moving a lot of dirt and making it an economically-priced course that everybody can play."

The course was built on 157 acres formerly owned by Swartzentruber's parents. The family's home was renovated and expanded to become a clubhouse.

County Oaks is a par-72, 6,585-yard layout that was designed, for the most part, by its seven owners. The group originally hired a golf course architect, but became dissatisfied and decided to do it on their own. Besides Swartzentruber, the other owners are Dan Gress, Bob McGuire, Darrell Jones, Amos Wittmer, John Legancher and Denzil Fowler. Construction started in spring 1996 and the course officially opened in mid-July.

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large areas of turf, such as golf course fairways and athletic fields.

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Horticultural Supply

S.C. firm buys Park City, Utah golf operation

PARK CITY, Utah — Park Meadows Golf Club here has been sold. Park Meadows Golf Partners, L.P. announced the sale of the 18-hole Jack Nicklaus-designed course and associated club facilities to Park Meadows Golf Co. L.L.C. The buyer is an affiliate of the Melrose Co., a real-estate developer headquartered on Hilton Head Island, S.C. The sales price was not disclosed.

Plans for Park Meadows include renaming the property to Park Meadows Country Club and converting it to a private club. According to Richard P. Reichel of The Melrose Co., no immediate changes are planned for current club operations. The timetable for conversion to a private club, planned renovations and additions, and the membership plan will be announced at a later date. Membership to the private club will be by invitation.

The Park Meadows club facilities include the 7,413-yard course (which opened for play in 1982), an 18,000-square-foot clubhouse, practice facility, driving range and maintenance building.

CORRECTION

An article in the July issue of *Golf Course News* incorrectly identified architect Ed Beidel in connection with a story regarding Turtle Creek Golf Course in Limerick, Pa. Beidel is with the firm of Beidel Design Associates based in Mt. Pleasant, S.C.

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Take a kid — anyone's kid — golfing

We're bombarded with all forms of media concerning the trends changing the face of America. But how often do we really see these trends unfolding in front of our own eyes? Or better yet, how often are we able to play a part in the growth of a trend?

I don't think anyone would argue that more and more kids are picking up clubs for the first time. But let's face it, if these kids are going to keep their interest, they're going to need a little encouragement, a little preaching from the converted.

Team that encouragement with an accessible learning center (see Public Golf Forum story on cover), and we'll have a set of core golfers for the next 50 years.

Around Masters' time we were exposed to the Nike commercials depicting youngsters of all colors, all creeds, whacking golf balls down long, lush, green fairways — an uplifting symbol of golf's bright future.

Those Nike commercial images jarred a few memories.

How could I forget the first couple times my Dad took me up to Butler's Golf Course (Elizabeth, Pa.) to hold my hand through my first rounds. He gave me the crucial tips I needed to build my game — the ball most "away" hits first, don't walk in another person's line. "Keep your head down," he said. "Don't try to kill it."

The rounds with Dad increased. We started playing with his buddies from work, who loved to overwhelm me with swing and course-courtesy tips. I started taking my clubs on family vacations and lost interest in going to the beach. I was hooked.

Dad's golf missionary work encouraged me, lead me down the path to what the industry calls an "avid" golfer: one who sneaks off to the range at lunch, or to get more technical, one who plays in excess of 25 rounds a year.

To play my part, I recently donned my golf missionary's robe to give a young golfer a few of those swing and course-courtesy tips my Dad bestowed on me. Not having any kids myself, I took a non-golfing colleague's 13-year-old son out to the local course to play 9.

Ross started playing in June, and for never having a lesson, has a nice, natural swing. "Keep your head down," I heard myself saying. "Don't try to kill it."

His enthusiasm for the game is true. His eyes lit up when he crushed a 3-wood about 170 yards down the middle of the fourth fairway. I helped him with his chipping, and when we were waiting to tee off on the 8th, he used the time to hunt frogs and pull balls out of the lake with a telescopic scooper.

When we closed out the 9th, we shook hands. "Nice round," he said. Back at the clubhouse he spied three of his friends teeing off on the 1st. The three boys, decked out in Nike golf gear three sizes too big, wielded shiny metal woods. We stood and watched them tee off.

"This kid's pretty good," Ross said. The young man uncoiled into a drive, causing that high-pitched 'ting' from the clubhead. The ball traveled about 150 yards down the middle.

"Cool," Ross said.

These are the sounds of the future of golf, sounds the industry must nurture.



Michael Levans,
editor

Will the real environmentalists please take one step forward

So, The World According to Dodson has arrived: a world where Audubon International's principles of sustainable resource management are not only adhered to but are gospel — flesh of flesh and bone of bone in a development project.

With AI's venture into developing Audubon golf courses, construction and maintenance of golf courses takes a mega-step forward. This goes beyond the Audubon Cooperative Sanctuary System Program, which was first off the block signing up existing golf courses in the late 1980s; beyond the Audubon Signature Program, which admitted members as they began construction; and beyond even the Gold Signature Program, which registers members prior to the siting and design of a project.

Think of the significance of this endeavor. AI President Ron Dodson intends to build 100 — that's 1 with not one but two 0s after it — golf courses sited, designed, built and maintained by Audubon's high environmental standards. Thousands of acres of land around the country sitting unused, unwalked-upon, unbird-watched-upon, unhiked-upon, will be opened up to tens of thousands of people now.

This should make environmentalists, birders, ornithologists and snake-lovers happy, right?

Wrong. I predict a number of people in the environmental community will be up in arms. And if and when they go public, watch for this Biblical phrase to be fulfilled: "Their skirts will be lifted over their heads."

Yes, we will discover who are the true environmentalists. Those who, for their livelihood, try to stop any and every development on earth, will be exposed.

"We will catch flak," Dodson acknowledged.

Closely watch the National Audubon Society and Sierra Club, which have consistently bad-mouthed AI and its sister Audubon Society of New York for their involvement with golf courses, resorts, schools and others.

And while you watch, keep in mind that AI promotes reduction in the use of non-renewable resources, creates wildlife habitat, restores degraded environments, pushes golf course superintendents, resort owners and schoolchildren to be aware of the wildlife, flora and fauna around them, and much more.

Then ask National Audubon and Sierra, "What are you for?" Is it too outrageous to say: "If Organization A is against Audubon International golf courses, evidently it is anti-environment!"?

Congratulations to the true environmentalists: Audubon International, Audubon Society of New York and those scientists and lay persons who work hand-in-glove with them.

...

"Uh, Mr. President?"

"Yes, son. I'm about to tee off here, so what do you want?"

"Sir, I, uh, I, um..."

"Speak up, corporal. As a member of our nation's military police, you must learn assertiveness. What is it?"

"Sir, I must ask you to put out your cigar, or, or ..."

"Or what?"



Mark Leslie,
managing editor

Continued on page 50

GUEST COMMENTARY

Confusion by design?

By JIM APPLGATE

We sincerely empathize with those who are about to embark on a golf course project today. Whether that project entails a renovation and redesign or a completely new design and construction. We empathize because, perhaps more than ever before in history, a would-be golf course project

Jim Applegate is president of Signature Course Design

has so many design firms, design philosophy and design fees to select from. It must be very confusing for even experienced golf developers.

The term "design firm" may be overstated and more marketing than reality, in that a golf course designer need not have large corporate headquarters and a large staff to provide professional, quality work. The nature of the business provides that a single golf course designer may consider him or herself a

"firm." However, the uninformed golf course developer may be expecting a full support team of civil engineers, land planners and construction services. Best to find out early the depth of the "firm."

We believe that the majority of those working in golf course design are doing so because of their love of golf and because they have developed a technical and artistic skill that deals with the creation of courses for the game. However, the severe competition amongst designers is forcing them to seek individual "niches," which is also creating confusion.

Our empathy for those seek-

ing our service stems from this confusion that we see in the design marketplace. Does the owner select a well known name, a well known player, an affordable regional designer, a design and build arrangement, a design and manage proposal or a hybrid of all of the above? Many other components are often presented as a part of the designer's proposal, which may include golf academies, facility endorsements, tournament production, merchandise packaging, maintenance supervision, consulting and maintenance equipment

Continued on page 50

GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

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MARK FISCHESSE
1956-1997

NAPERVILLE, Ill. — Mark Fischesser, 41, died at home on July 12 following a year-long battle with cancer. He is survived by his wife, Lauren, sons, Brian and Daniel, and his father, Bernard, retired general manager of The Village Golf Club in Royal Palm Beach, Fla., and a brother, Christopher.

A graduate of the turfgrass agronomy program at Michigan State University, Mr. Fischesser was director of golf construction and agronomy for North American Golf and Meadowbrook Golf Group, Inc. since 1994. He played a major role in the design and construction of several golf courses in the United States and Europe as a field design supervisor and project manager for Robert Trent Jones Sr.

His first construction project was Jupiter Hills Country Club in south Florida. His accomplishments in Europe

Continued on page 51

U.S. golf development continues to put up staggering numbers

Edit Note: The following information comes from a brand new Golf Research Group survey of every new golf course built in the U.S. over the past eight years.

By COLIN HEGARTY

LONDON — More new courses have been built in America in the past eight years than have been built in England over the past 400 years.

The scale of the U.S. golf development business is truly amazing: \$3.2 billion of member initiation fees have been sold and a staggering \$75 billion of golf residential real estate has been sold.

Significant trends have emerged from Golf Research Group's latest study. Nine hole construction has risen from 21 percent to now account for 40 percent of all construction. This partly due to more developers building nine then adding nine a few years later.

Expansion of existing facilities has grown from 5 percent of all

Colin Hegarty is a researcher with London-based Golf Research Group.

development to 14 percent due to financial sources being more comfortable lending to existing operations with a track record as opposed to green field start-ups.

Development of private member clubs has fallen in a big way. They used to account for 22 percent of new courses but now represent just 9 percent. The trend is toward semi-private and very significantly public operations. The green fee is definitely on the ascendancy over the private membership. Membership prices are not slack, however. Private club initiation fees at the new courses average \$20,000 across the U.S. but this average more than doubles in Arizona. Initiation for semi-private courses is far lower, averaging \$1,200, and over half charge no fee. The most expensive initiation fee at a new U.S. course is \$350,000 at the Golf Club at Desert Mountain designed by Jack Nicklaus.

Greens fees can go into the stratosphere as well. While the U.S. average is \$25 midweek, Hawaii and Nevada average \$120

and \$75 respectively. Tom Fazio's The Hudson National in New York distinguishes itself with the highest green fee, a cool \$250 for 18 holes midweek. With 66 of the new courses charging green fees of more than \$100, the premium green fee market appears to thrive.

The golf real estate business can only be described as astonishing, with more than half a million new fairway lots created in the past eight years. While most states have some golf real estate, the major activity is very much a Sunbelt thing. Orlando, Houston and Phoenix are the big three cities for golf course home construction. Almost half the real estate developments are gated communities.

Development of private member clubs has fallen in a big way. They used to account for 22 percent of new courses but now represent just 9 percent. The trend is toward semi-private and very significantly toward public operations. The green fee is definitely on the ascendancy over the private membership.

The choice of golf architect is shown to deliver enormous extra value to new courses. Based on pricing and rates of sale, it has shown that developments that use golf architects achieve a Net Present Value premium 192 percent above developments that don't use architects.

A clear super league of 33 architects emerge whose projects delivery 423 percent more value than average. The top name on the super league is the fourth busiest architect in the U.S. but still delivers a value more than 1,146 percent over the average project.

Golf Research Group's publication "The U.S. Golf Development Report" is priced at \$495. For more information call 510-228-1589 or www.golf-research.com.

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Who Needs It?

If you're a golf course superintendent, then you probably do.

The fact is, water quality is an issue for most superintendents. The fresh water you're pumping may still contain anything from Algae to Zebra Mussels. Or local regulations might require that your course use effluent as an irrigation water supply.

While effluent water is "safe" for irrigation it still contains a high level of nutrients. Sitting in your irrigation pond this water can quickly explode into an algae farm. If you're pumping unfiltered effluent, imagine having to remove and clean every clogged sprinkler head on the course. Now imagine doing it every month.

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Fresh Water Snails - Can breed inside the system. Adults can plug nozzles.

Sand - Can plug small valve ports and cause wear inside nozzles, distorting application rates.



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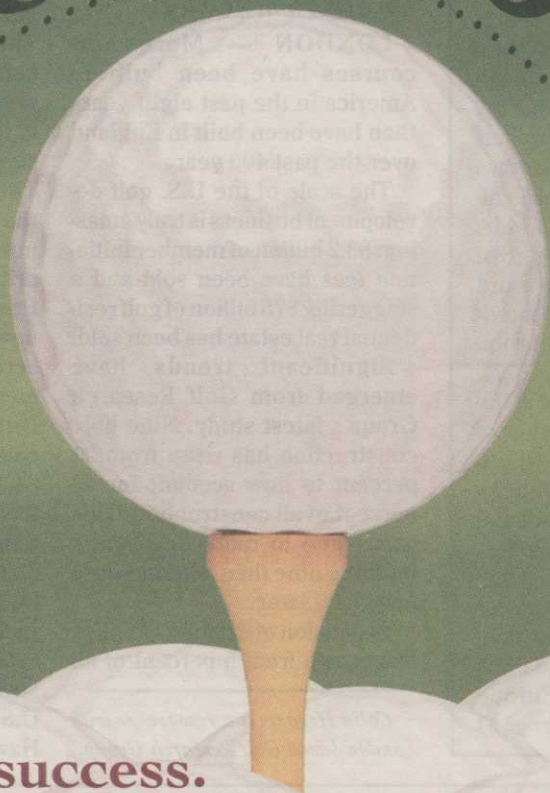
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- Learn how to position your course successfully against new and aggressive competition.
- Use market-savvy strategies to broaden your customer base, target new demographics, and increase your rounds.
- Ensure an emphasis on customer service.
- Plan and strategize for results, make better business management decisions, and advance your own career.

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OCTOBER 27, 1997	9:00 - 9:50 AM			
	10:00 - 10:50 AM	Speed of Play	The Daily-Fee Country Club Concept	OSHA—Turning Pain Into Gain
	2:00 - 2:50 PM	General Manager: Figurehead, Department Head or CEO?	Renovation: Facelifting Your Golf Course	Turf Wars: What's New?
	3:00 - 3:50 PM	Getting Established in a Community	Building the Affordable Golf Course	Gadgets, Gizmos and Inventions: Making Life a Whole Lot Easier
	4:00 - 4:50 PM	Improving Your Image Through Community Involvement	It Doesn't Have To Be "Public"	Bunker Drainage and Maintenance
5:00 - 7:00 PM	R E C E P T I O N			
OCTOBER 28, 1997	9:00 - 11:30 AM	Expanding Your Base: How To Get New Players In The Game Part 1: The Untapped Market Part 2: The Ultimate Learning Center		9:00 - 9:50 AM: The Perfect Maintenance Complex 10:00 - 10:50 AM: Mapping Your Golf Course at the Speed of Light
	2:00 - 2:50 PM	Operational Audits: Identifying Inefficiencies And Opportunities	Competing for Leisure Time	Biological Controls: Part 1
	3:00 - 3:50 PM	Increasing Your Outing Revenues	Country Clubs for the Common Man: Integrating Golf & Apartment Communities	Biological Controls: Part 2
	4:00 - 4:50 PM	What Renovations Can Mean To Your Facility's Bottom Line	Developing a Learning Center Environment	Biological Controls: Part 3

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BRIEFS



IPM SEMINAR SCHEDULED

PHOENIX — The major concepts of a sound Integrated Pest Management program will be presented by Dr. Karl Danneberger of Ohio State University here Sept. 3. Presented by the Cactus and Pine Golf Course Superintendents Association and Golf Course Superintendents Association of America, the seminar will focus on managing turfgrass under environmental stress as well as pest management and pesticide resistance. Advanced registration is required and will include lunch and a reference manual. People may call 800-472-7878 for more information.



FLORIDA ASSN. PROMOTES INDUSTRY

ORLANDO, Fla. — The Florida Turfgrass Association (FTGA) has announced the continuation of its most aggressive public-service campaign, creating awareness of Florida's most prolific environmental resource — turfgrass. The FTGA has developed 30- and 60-second public-service announcements for television and radio to air in 24 markets throughout the state. The PSAs feature professional golfer Lee Janzen explaining the benefits of turfgrass.

MID-AM RETAINS DATES

CHICAGO — Reversing a decision announced earlier this year, the Mid-America Horticultural Trade Show (Mid-Am) has abandoned plans to change the show's 1998 dates, confirming that it will now take place Thursday through Saturday, Jan. 15-17. Earlier, the Mid-Am board of directors had announced plans to change to a Wednesday-through-Friday pattern, but unsuccessful attempts to renegotiate labor contracts thwarted the effort.



HEART OF AMERICA SETS CONFERENCE

KANSAS CITY — The Heart of America Golf Course Superintendents Association (HAGCSA) will hold its 1997 Golf & Turf Conference at Harrah's North Kansas City Hotel & Conference Center here Nov. 5-6. The second annual event will feature full-day seminars by U.S. Golf Association agronomists. More information is available from Olivia Golden, HAGCSA, P.O. Box 419264, Kansas City, Mo. 64141.

Audubon Int'l streamlines campaign, goes primetime

Elkington takes reins as global spokesman...

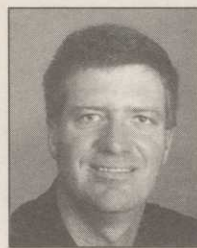
...while Sanctuary certification made smoother

By MARK LESLIE

SELKIRK, N.Y. — Featuring PGA Tour star Steve Elkington as its international spokesman, Audubon International is launching the Audubon International Golf & the Environment Campaign in October in an effort to educate golfers globally "to be stewards of the game, stewards of the rules and stewards of the environment."

"The awareness will get golfers to think about the history and heritage of the game, its link with nature, that it's a walk with wildlife — the whole gamut," said AI President Ron Dodson. "It will also make them aware not only of the rules of golf but of the environmental rules, the stewardship responsibilities like not littering, fixing divots, repairing ball marks and remembering that they are playing on living plants."

Pointing out that golfers are mostly interested in playing golf, Dodson said from his headquarters here: "You need to have a



Steve Elkington



Lee Mangum

By MARK LESLIE

SELKIRK, N.Y. — With a former golf course superintendent now at its helm, the Audubon Cooperative Sanctuary System (ACSS) has streamlined the certification process and made it look "less scary" to potential members.

The ACSS boasts 2,200 active members, including 107 that are fully certified, and it hopes the program change will boost new

memberships.

The new system "won't necessarily be a lot quicker but less complicated and confusing," said Lee Mangum, who left an assistant superintendent post at Squaw Creek (Calif.) Golf Course to take the position as ACSS director. "We combined our resource inventory at the same time as the environmental planning step, so a golf course can get right into the certification process immediately."

In the past, a superintendent would fill out his course's

Continued on page 16

Continued on page 16



Flagstone of varying shapes and sizes can help eliminate the wear problem on cart path edges.



Flagstone edging a winner

DALLAS — When greens and grounds superintendent Mark Price departed The Northwood Club here this spring, he left successor Scott Ebers a present: good-looking edges to cart paths that once were worn and torn by golf carts and maintenance vehicles.

Facing dead grass on the edges of the paths in a number of spots, Price installed pieces of flagstone of varying shapes and sizes to the edge of the paths.

The results, Ebers said, are excellent, and "eliminated the wear problem while keeping the paths aesthetically pleasing."

The flagstone was installed two ways, both of which worked well:

- The soil was stripped and the flagstones installed in place, dry; and
- Concrete was poured between all the pieces of flagstone to hold them firmly in place.

International Turf Society shrinks world of research

By MARK LESLIE

SYDNEY, Australia — The International Turfgrass Society (ITS) attracted scientists here from around the world in July, exchanging findings on research ranging from physical turf attributes to breeding and genetics, to environmental issues.

Meeting once every four years, the ITS "gets the whole research community in sync," said Dr. Rich Hurley, director of research for Lofts Seed Co. "You get to know people around the world and what they're doing. Otherwise, a person could be working on the same thing and you wouldn't know about it."

The ITS, he said, also promotes collaboration. "You can become a friend and working associate with someone on the

See research stories, page 20

other side of the world through the society," Hurley said. "People get to know each other and communicate via fax, e-mail and telephone. The conference is a catalyst to cooperation."

"It also gets people focused on the different climates and worldly problems. I think it makes research more efficient because it makes everybody aware of what's happening in the world."

A case in point, he said, is the international acceptance of new bentgrasses developed in America.

"There's a great interest in them around the world," he said. "They are being used

in Australia, Japan and Europe. That's a big step up. They are hopping on the bandwagon, and I think a lot of it is this global community we have. It's so easy to spread information around.

"Superintendents in foreign countries receive the major magazines. They know instantly what's happening here in the States, so when a new grass comes on the market they're on them."

Dr. Pam Charbonneau of the University of Guelph is the new president of the ITS and will oversee host duties for the next session in 2001.

In the meantime, Immediate Past Secretary Dr. Jack Hall of Virginia Tech is coordinating publication of the 1997 meeting papers.

Audubon Int'l streamlines campaign, goes primitive

Elliottson takes reins as global spokesman... while sanctuary certification made smoother

BY MARK LESLIE
SHELKIK, N.Y. — With a former golf course superintendent now in its helm, the Audubon Cooperative Sanctuary System (ACSS) has streamlined the certification process and made it look "less scary" to potential members.

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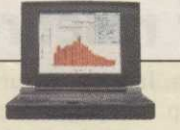
Left: Kansas, Right: Oklahoma



PREDICTABLE

DALLAS — When greens and grounds superintendents Jack Price depicted The Northwood Club here this spring, he did so with a present, good-looking course in mind. Price said that once work was done on the golf course and some maintenance...

Price said that once work was done on the golf course and some maintenance... The results, Price said, are excellent and "eliminated the worst problem while keeping the balls aesthetically pleasing." The facade was installed two ways, both of which worked well.



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BRIEFS



19M SEMINAR SCHEDULED

PHOENIX — The major concepts of a brand integrated Pest Management program will be presented by Dr. Earl Darnowski of Ohio State University here Sept. 4. Presented by the Cactus and Fine Golf Course Superintendents Association and Golf Course Superintendents Association of America, the seminar will focus on managing insects and environmental stress as well as pest management and pest control. Advanced registration is required and includes lunch and a reference manual. People may call 800-475-1876 for more information.

INDIANAPOLIS — The Florida Golf Association (FGA) has announced the continuation of its most aggressive public service campaign, creating two new Florida Golf Environmental Programs. The FGA has developed 30- and 60-second public service announcements for television and radio to air in 34 markets throughout the state. The FGA's leading professional golfer, Lee Jason, explains the benefits of turfgrass.

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WHO AM I REMAINS DATE

CHICAGO — Reversing a decision announced earlier this year, the Mid-America Horticultural Trade Show (Mid-Am) has abandoned plans to change the show's 1998 dates. The show will now take place Thursday through Saturday, Jan. 17-19. Early in the Mid-Am board of directors had announced plans to change the show's dates to Friday through Sunday, Jan. 18-20.

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AI Elkington plan educational campaign

Education from page 12
 Elkington will continue to
 investigate and develop
 "What is in mind, AI and
 Elkington are taking a multi-
 faceted approach."
 Elkington said "It will start out
 with awareness that starts with
 local business and education and
 then goes to the general public
 through the use of the financial
 industry."

It will begin with local
 clubs and associations
 Elkington said
 "Down the road," Elkington
 added, "we will try to create an
 opportunity for golfers to regis-
 ter their own backyard in the
 Anderson Cooperative Sustain-
 able Program, or form an
 Anderson club specifically for
 golfers."

Elkington said
 "The campaign will be a
 four-color issue in links and
 golf courses management
 starting in November
 and will show one or more
 Anderson golf courses and to
 club interviews with owners
 and managers."

Tolani named to FTGA board
 TAMPA, Fla. — The Florida Turfgrass Association (FTGA) has named Rick Tolani to the board of directors of the 1,200 member organization.
 Tolani has been golf course superintendent of the Forest County Club in Ft. Pierce for the past four years. An active member of the FTGA since 1988, serving as committee chairman in 1992, he has also been actively involved with the Florida Golf Course Superintendents Association the past three years.
 The FTGA directs its efforts toward increasing awareness throughout the state of the fundamental importance of the Florida turfgrass industry.

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AI, Elkington plan educational campaign

Continued from page 13

program that will capture their imagination and attention."

With this in mind, AI and Elkington are taking "a multi-year, multi-layered approach," Dodson said. "It will start out with awareness, then appreciation, then understanding and, finally, action. It may take months or years to get to the 'action.'"

An Australian who lives in Houston, Elkington is partner in Major Landscapes, which designs golf courses and the landscapes around them.

Dodson interviewed several Tour players before deciding on Elkington as the spokesman. "We talked about philosophy and what we believe in and what he believes in," Dodson said. "The fact that he lives in Texas but is an international player is a good fit, we think."

The campaign will kick off at the PGA Tour Championship in Houston the weekend of Oct. 31-Nov. 2, and will include public service announcements, posters and an ongoing magazine insert. "During the winter there will be public reminders," Dodson said.

Certification streamlined

Continued from page 13

resource inventory and have to wait for a conservation report before he or she could get started on the program. The Audubon book *A Guide to Environmental Stewardship*, Mangum said, "provides all the necessary tools they need to get started."

The certification process, he said, "was crunched down as best we can. We want to keep it credible. The success of the program is that it's an educational process. For them to get instantly certified would serve no purpose. It will take at least a year and, typically, three years."

An environmental planning form tells superintendents the minimal requirements to receive certification, "so they know up front what it will take in the six categories," Mangum said. Members work toward certification in each of the half dozen areas of course preparation. Once they are certified in all areas, their course is fully certified.

Mangum was assistant superintendent for three years at Squaw Creek, which is maintained completely without chemicals. In his new position, he is also director of Audubon International's (AI) school, individual and business programs.

Nancy Richardson directs the AI's Signature System and Gold Signature System.

"It will begin full-force next spring."

One component, Audubon Showcase Magazine, will be a four-color insert in Links and Golf Course Management magazines, beginning in November. It will showcase one or more Audubon golf courses and include interviews with course ar-

chitects and superintendents, he said.

"Down the road," Dodson added, "we will try to create an opportunity for golfers to register their own backyards in the Audubon Cooperative Sanctuary Program, or form an Audubon club specifically for golfers."

Tatum named to FTGA board

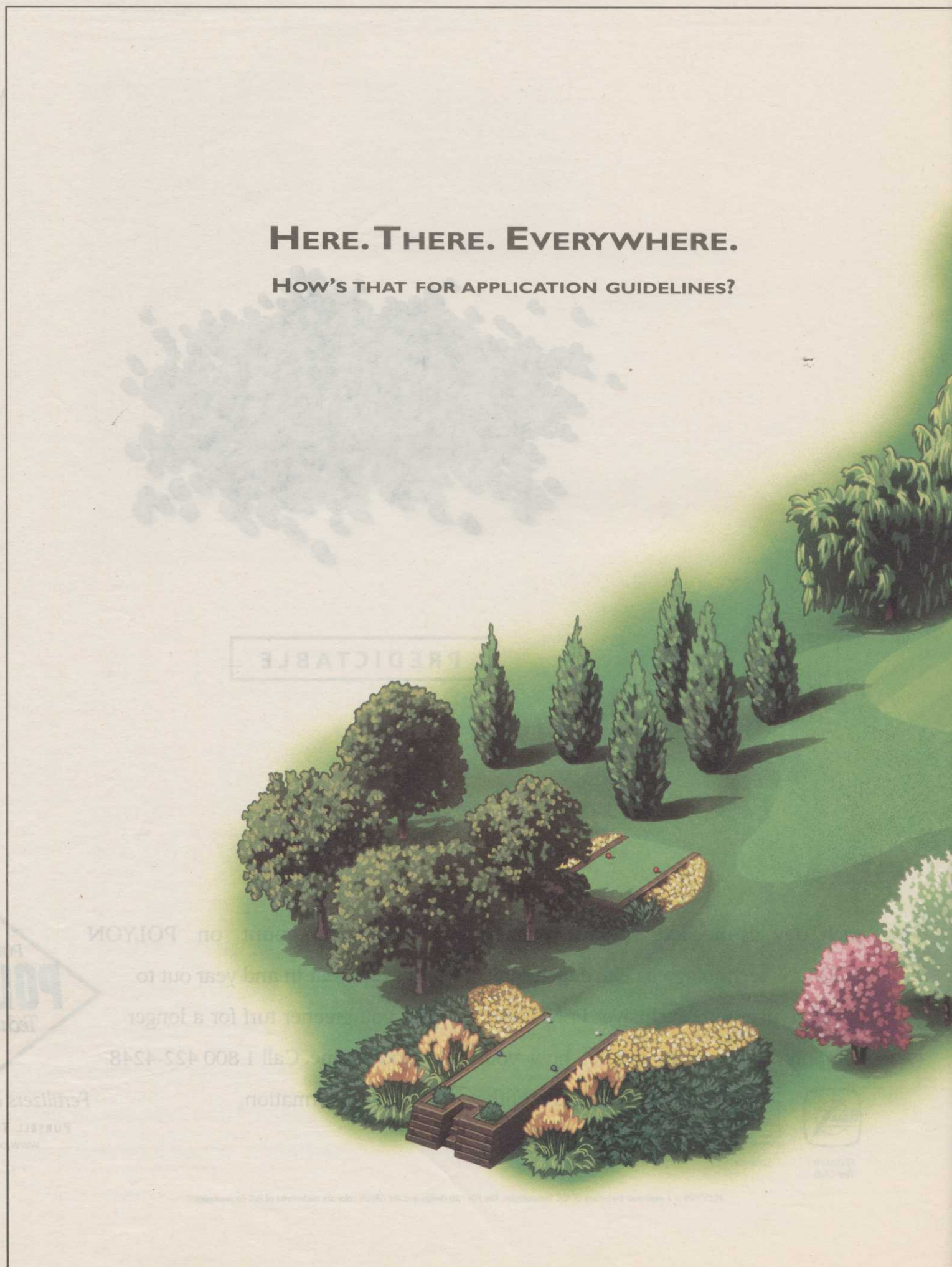
TAMPA, Fla. — The Florida Turfgrass Association (FTGA) has named Rick Tatum to the board of directors of the 1,200-member organization.

Tatum has been golf course superintendent of The Forest Country Club in Ft. Myers the past four years. An active member of the FTGA since 1989, serving as committee chairman in 1995-1996, he has also been actively involved with the Everglades Golf Course Superintendents Association the past three years.

The FTGA directs its efforts toward increasing awareness throughout the state of the fundamental importance of the Florida turfgrass industry.

HERE. THERE. EVERYWHERE.

HOW'S THAT FOR APPLICATION GUIDELINES?



Audubon golf courses on the horizon

Continued from page 1
program will continue when management changes at a member facility. Audubon courses is one way we can deal with that issue. Plus, we want to do long-term research, education and community-improvement projects.

"We truly believe that a well-sited, designed and maintained

golf course is good... The idea is to develop environmentally sensitive public courses that will have reasonable greens fees and with learning centers aimed for families... We're pretty excited about this.

"We have been talking with interested parties in the golf course industry who have ex-

pressed interest in financially backing the development of Audubon golf courses."

To accomplish the new golf course system, AI has created another not-for-profit organization that is "joined at the hip with AI" — Audubon International Golf and the Environment Land Trust. The land trust, ac-

ording to Dodson, is to focus on golf and the environment.

Thus far, he said, just in conversations "testing the water" for this proposal, the trust has been

offered six properties, including one of 20,000 acres.

He cited a government agency in the West that has thousands of acres of property and wants to see public golf courses built as part of its recreational mandate. It has already required that any new courses built on its property meet Audubon Signature standards, Dodson said, "So, when I told them we could not only guarantee they would be Signature, but Audubon courses, they were very excited. They sent us a laundry list of properties to build courses on. We couldn't own them because it's government land, so we would have something on the order of a 50-year lease."

This venture is a greater step toward Audubon purity, Dodson said, because it ensures Audubon's programs in perpetuity.

AI hopes to help create a for-profit firm that will actually oversee design, construction and management of the new courses.

"As we see it, the hammer that AI will have over this development entity," he said, "is, first, we will be the landlord because we will own the land.

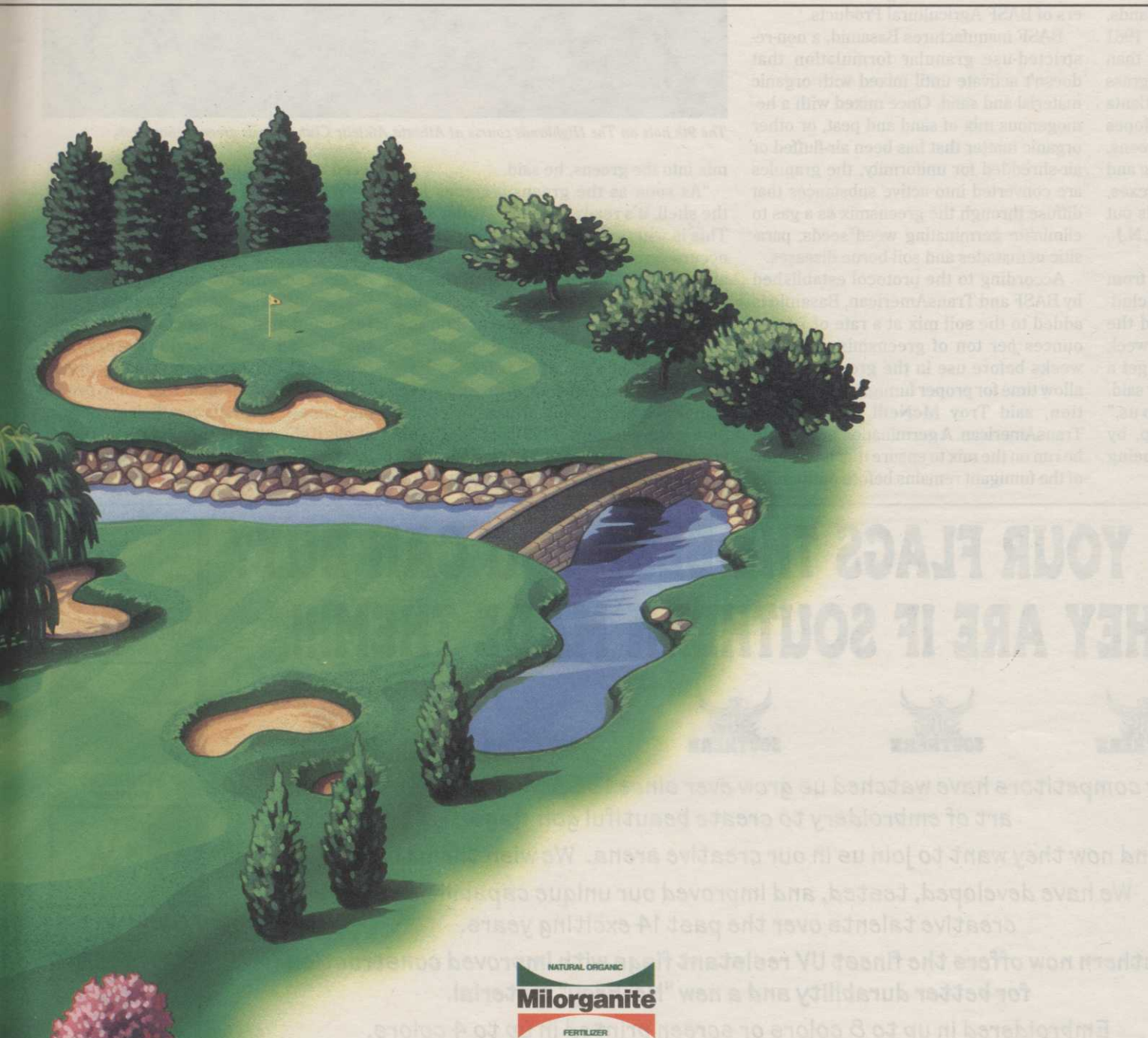
"And, second, our requirements that the company adopt the Audubon principles of sustainable resource management as part of its corporate structure. Since our environmental principles and programs actually will be written into their structure, it is much more than a simple license agreement."

Dodson hopes the U.S. Golf Association will endorse the project through its Public Golf Committee, and that it will consider contributing funding to develop and marketing and promotion program.

AI now will actively seek donations of property appropriate for these Audubon golf courses. Smaller parcels, too, can become part of the land trust, Dodson said.

"If someone owns an existing course and has, say, a 55-acre wetland complex that the government wants maintained in a certain way, the land trust can accept the land and take care of it," he said.

The project speaks volumes to a larger issue as well, Dodson said, adding: "Think of all the open-space and water issues that have been positively impacted by appropriate development. Inappropriate development causes pollution and all sorts of ill effects. But appropriate development yields jobs, open space and wildlife habitat that are actually protected long-term through economic development."



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Atlanta Athletic Club reports success with new sterilization method

DULUTH, Ga. — Even a great golf course needs a makeover once in awhile. That's what Atlanta Athletic Club officials decided in 1994, when they took the plunge to bring the greens of The Highlands, built in 1968 with 1968 technology, into the present.

"We needed to replace the Penncross bentgrass with the more heat-tolerant Crenshaw," said superintendent Robert Waller.

But the task of updating The Highlands, host to the 1976 U.S. Open and the 1981 PGA Championship, was far more than putting in a dense, upright-growing grass species that could withstand the Atlanta summers. Golf course architect Rees Jones was brought in to design the new greens, culminating in a complete remodeling and rebuilding of the entire green complexes, from the putting surfaces to 50 yards out into the fairways. Calgolf of Montclair, N.J., handled the remodel project.

The new greens also benefited from 1990s construction technology, including a new technique that simplified the fumigation process and trimmed a full week off the time it traditionally takes to get a green seeded and ready to go, Waller said.

"Time was absolutely important to us," he said, "and this process sped up, by seven days, the time from a green being shaped to being seeded."

Atlanta AC contracted with Trans-American Soil Blenders Inc. of Lubbock, Texas, to blend a mix of 83 percent sand, 15 percent Irish peat moss and 2 percent Profile soil amendment, plus lime and a minor nutrient package for the greens. The new twist was the way the greensmix was sterilized: with the addition during blending, before construction, of Basamid granular soil fumigant in a process developed by TransAmerican and the golf services advisers of BASF Agricultural Products.

BASF manufactures Basamid, a non-restricted-use granular formulation that doesn't activate until mixed with organic material and sand. Once mixed with a homogenous mix of sand and peat, or other organic matter that has been air-fluffed or air-shredded for uniformity, the granules are converted into active substances that diffuse through the greensmix as a gas to eliminate germinating weed seeds, parasitic nematodes and soil-borne diseases.

According to the protocol established by BASF and TransAmerican, Basamid is added to the soil mix at a rate of 7 to 10 ounces per ton of greensmix about six weeks before use in the green cavity to allow time for proper fumigation and aeration, said Troy McNeill, president of TransAmerican. A germination test should be run on the mix to ensure that no residue of the fumigant remains before putting the



The 9th hole on The Highlands course at Atlanta Athletic Club after its greens renovation.

mix into the greens, he said.

"As soon as the greensmix goes into the shell, it's ready to seed," Waller said. This is where the time- and labor-saving occurs versus fumigating the greensmix after green construction. "With the old way, once you had the perfect green just as you wanted it, you had to tear it up and just about start over. With Basamid, we don't have to do the work twice."

During the remodeling, the entire green complexes were rebuilt on nine holes at a time in the summers of 1994 and 1995. "The greens turned out great," Waller said. "We were mowing them at nine days, with no

weed or disease problems, then or later."

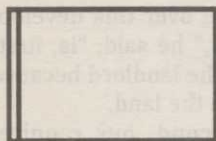
"What is good is, now we have another option that works as well, if not better, than the old technique," Waller said, referring to methyl bromide, which will not be allowed sometime in the future.

McNeill likes that Basamid is a non-restricted non-ozone-depleting product that helps him deliver a complete greensmix that produces a quality green.

Waller acknowledged that some people may choose not to sterilize their greensmix at all, if they know they have clean sand from a known source and clean seed. But

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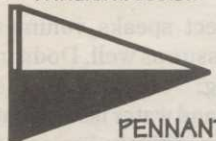
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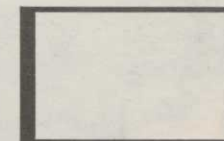
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NEW CASTLE PATTERN



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BURGESS PATTERN



ASCOT PATTERN

Event covers GPS, biologicals, other new ground

Continued from page 1
will hear:

• Cal Roth, director of golf course maintenance for the PGA Tour's 16 Tournament Players Clubs, speaking on "the perfect maintenance complex." Roth and his superintendents have designed a sort of template that fits all needs and can be configured to fit any site.

• Ray Davies, regional agronomist for CourseCo Inc. in California and former president of the California Golf Course Superintendents Association, who will tell how to turn "a pain" into "a gain" by working in a positive way with OSHA regulations. He will share numerous opportunities to improve a maintenance operation while at the same time keeping government regulators happy.

• Kevin Ross, director of golf course management at Country Club of the Rockies in Edwards, Colo., speaking on gizmos, gadgets and inventions that can make life a whole lot easier.

• Bob Brame, regional director of the U.S. Golf Association North-Central Region, who will draw on his latest experiences after the unique challenges of the summer to tell superintendents how to best battle the problems at their courses.

• Terry Buchen, a Master Greenkeeper and president of Terry Buchen Golf Agronomy International, addressing the latest and best methods of maintaining bunkers and improving their drainage.

Meanwhile, the latest in the technology of "mapping" a golf course will be presented by Larry Rodgers, president of Larry Rodgers Design Group in Lake-wood, Colo.

Always at the forefront of technological advances that can be

applied to golf course irrigation and maintenance, Rodgers will discuss mapping a course quickly through the new marriage of Global Positioning Surveys and Geographical Information Systems technologies. He will demonstrate how the technology can be manipulated into

a Spatial Data Information system for use in irrigation central control, chemical and fertilization applications and robotics maintenance equipment.

The half-day seminar on biological controls will be led by Cornell's Nelson, considered a foremost researcher in this field

in the world.

He will be joined by Dr. Janet Anderson, director of the Biopesticides and Pollution Prevention Division of the federal Environmental Protection Agency, and Dan Dinelli, superintendent at North Shore Country Club in Glenview, Ill., who has been a part of several studies and field-research projects pertaining to various biological controls, including the BioJect system.

Atlanta AC

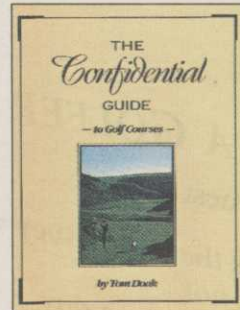
Continued from previous page even in that situation, Waller said he would sterilize to remove the risk of disease, weeds or other pests in new greens. "We paid more than \$2.5 million for the total renovation," he said. Pre-construction blending and sterilization "was a nice, inexpensive insurance policy."

GOLF COURSE NEWS BOOKSHELF

The Confidential Guide to Golf Courses

By Tom Doak

Written in the inimitable style of *Golf Magazine's* golf course design editor, this book describes, uncovers and rates more than 1,000 courses worldwide that the author has visited and photographed.



With more than 180 four-color photographs, it might be the best collection of worldwide photos ever published. It starts with a "Gourmet's Choice" selection of 31 of Doak's personal favorites, each by a different designer, followed by brief reviews of

courses from Pebble Beach, Calif., to Kebo Valley, Maine, and from St. Andrews, Scotland, to Joondalup in Western Australia.

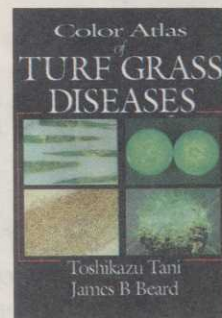
\$45.00, 400 pages, hardcover.

Color Atlas of Turfgrass Diseases on Golf Courses

By Dr. Toshikazu Tani

Contributing Author, Dr. James B. Beard

The *Color Atlas of Turfgrass Diseases on Golf Courses* presents more than 540 high-quality color photographs of all the major turfgrass diseases that occur on both warm- and cool-season grasses. It is international in



scope. This book will likely become the standard color-guide to disease diagnosis and pathogen identification for golf course superintendents and turfgrass practitioners. No other book contains as many color photographs of this detail and quality. Helpful maps are included to assist in disease identification by providing geographical locations where each disease/pathogen is likely to occur.

A unique feature of this easy-to-use field guide is that it also provides color photos of step-by-step guidance on diagnostic techniques for laboratory analysis which can be used by practitioners.

\$79.95, Approx. 250 pages, hardcover.

Human Resource Management for Golf Course Superintendents

By Robert Milligan and Tom Maloney

This practical guide provides basic management principles and techniques which view people as the most important asset in golf course management. Five basic management functions are detailed throughout the book, using everyday situations to illustrate the key points.

Designed to serve as a quick reference, or as a self-teaching guide, *Human Resource Management for Golf Course Superintendents* features numerous techniques and practical examples.

Every aspect of management is covered. Learn how to improve your planning abilities, build leadership and communication skills, maximize employee performance, select and train new employees, avoid the mistakes that cause low morale and poor performance, and conduct employee performance evaluations.

Use of the methods and principles presented in this book will ensure the effective management and operation of any golf facility.

\$34.95, 150 pages, hardcover.

Guide to Golf Course Irrigation System Design and Drainage

By Edward Pira

As a working reference or as a textbook, the *Guide to Golf Course Irrigation System Design and Drainage* covers every important aspect of the subject in an easy-to-understand format. It is perfect for the practicing turfgrass manager, superintendent, consultant, sales representative, and student. Used in numerous academic courses for years, this is the first commercially-available version of a perennial best-seller, and is completely revised with new exercises, practical examples, numerous new figures, and expanded sections covering a wide variety of irrigation system components. A hands-on manual, it guides



the reader through every phase of an irrigation program. Turfgrass managers and golf course superintendents will refer to this handy book often to plan effective irrigation systems, ensure appropriate capacity, easy installation, and practical operation and maintenance.

\$59.95, 400 pages, hardcover.

The Course Beautiful

By A.W. Tillinghast

This is a fascinating collection of original articles and photographs on golf course design by one of the masters. A prolific writer, Tillinghast delves into his philosophies on golf course design and maintenance, and his thoughts on what makes a championship course. It is loaded with vintage photographs and original Tillie sketches of such of his creations as San Francisco, Winged Foot and Baltusrol golf clubs.

\$34.95, 120 pages, hardcover.

The Captain — George C. Thomas Jr. and His Golf Architecture

By Geoff Shackelford

The creator of Riviera and Los Angeles country clubs and author of the classic book, *Golf Course Architecture in America, Its Strategy and Construction*, George Thomas has deeply affected the golf industry even since his death in 1932. Thomas worked on single projects with Donald Ross and A.W. Tillinghast, learned from friends Hugh Wilson and George Crump, and designed more than two dozen courses on his own. At the same time he was recognized worldwide for his books about and breeding of roses, his first love. Call him brilliant, or enigmatic, but in his last years his work was on a book about Pacific game fish. Shackelford reveals the man behind the work.

\$35.00, 207 pages, hardcover, limited edition of 1,200 copies.

Turfgrass Management Information Directory

By Dr. Keith Karnok

A 1,700-entry reference for turfgrass and green industry professionals, the *Turfgrass Management Information Directory* compiles the latest information and gives an at-your-fingertips list, complete with names, addresses and useful material you need every day.

The directory covers academic programs and key contacts, instructional resources including slide sets and videos, software and much more.

The section on related books provides a definitive guide to pertinent titles on diseases, weeds, insects, irrigation, pesticides and general information. Industry services such as diagnostic labs and soil-testing facilities are included.

A guide to green industry organizations gives addresses and contact names.

\$19.95, 115 pages, softcover.

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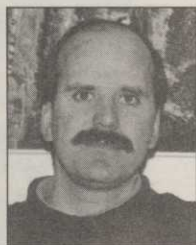
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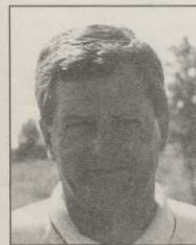
Ray Davies



Kevin Ross



Bob Brame



Terry Buchen

Organic amendments showing promise

SYDNEY, Australia — Citing the growing interest in using organic amendments, such as the residues of *Brassica spp.*, to control agricultural and horticultural pests and diseases, P.T.W. Wong told the International Turfgrass Society the outlook is bright for their expanded use in the turfgrass industry.

"The *Brassica* residues decompose in soil to release volatile isothiocyanates [ITCs], which are selectively biocidal," said Wong of the Agricultural Research Institute in Wagga Wagga, New South Wales. "They also exert an indirect effect on pathogens and pests by encouraging antagonistic microorganisms such as *Trichoderma spp.* and actinomycetes, which further reduce their inoculum potential."

Wong said more research is needed to investigate the types of *Brassica* residues to use, which ones release the most toxic ITCs, and the methods and rates of application for optimal efficacy without causing phytotoxic effects on established turfgrasses.

Brassica contain significant quantities of compounds known as glucosinolates (GSLs) in their tissues. GSLs are hydrolyzed by enzymes to release the volatile ITCs and other byproducts. While GSLs are relatively inactive against microorganisms, their byproducts, particularly ITCs, are highly biocidal to a wide range of organisms, including nematodes, bacteria, fungi, insects and germinating seeds.

Scientists are calling the suppression of soil-borne pests and pathogens by *Brassica* crops "biofumigation," and Wong reported "considerable interest in biofumigation as an alternative to synthetic soil fumigants in horticulture and for the control of intractable soil-borne pathogens in broad-acre agriculture."

He said the horticultural industry is using metham sodium (methyl ITC) as a soil fumigant, and *Brassica* root and shoot tissues "contain more toxic ITCs than methyl ITC... *Brassica* residues may, therefore, be used to biofumigate greens or turf areas requiring re-seeding."

Similarly, he said, relatively cheap mustard meal apparently significantly reduces populations of root-rotting pathogens in the soil and would suppress deleterious soil insects, nematodes and weed seeds. Whether the mustard meal is as effective as methyl bromide or metham sodium is not known.

Because it is standard practice to aerate and top dress golf greens several times a year, Wong said: "These would be convenient times to apply smaller amounts of organic amend-

ments. The amendments may be brushed into the core holes and be present in the thatch and root zones, where they could be expected to exert the greatest effects against root-rotting or thatch-inhabiting fungi.

"The amendments," he added, "could also be covered over by a layer of suppressive compost

instead of ordinary topsoil to further enhance biocontrol."

Wong warned that to successfully adopt practices which call for regular inputs of organic matter, "there needs to be some rethinking on the ideal composition of turf soil profiles."

"Turf managers may have to

Continued on next page

North American turfgrass studies reported at higher levels of education

SYDNEY, Australia — A significant difference between turfgrass management education available in North America and that in other countries around the world was pinpointed by a study released at the International Turfgrass Society (ITS) conference here.

"When comparing the turfgrass training provision on a per-capita basis, Australia, New Zealand and the United Kingdom come out poorly when compared to North America in developing specific education and training programs in turfgrass

Continued on next page

THE PROOF OF A GOLFER

by Edgar Guest

The proof of the pudding is the eating they say,
But the proof of a golfer is not
The number of strokes he takes in a day,
Or the skill he puts into a shot.
There is more to the game than the score which you make,
Here's a truth which all golfers endorse:
You don't prove your worth by the shots which you make;
But the care which you take of the course.

A golfer is more than a ball-driving brute.
He is more than a mug-hunting czar.
To be known as a golfer, you don't have to shoot
The course of your home club in par.
But you do have to love every blade of the grass,
Every inch of the fairway and greens.
If you don't take care of the course as you pass;
You're not what "a good golfer" means.

Just watch a good golfer some day when you're out,
And note what he does as he plays.
He never goes on leaving divots about,
'Til the grass is put back, there he stays.
Observe him in traps as he stands for his shot,
Then note when the ball has been played,
He never unthinkingly turns from the spot,
'Til he's covered the footprints he made.

You may brag of your scores and may boast of your skill,
You may think as a golfer you're good;
But if footprints you make, in traps you don't fill,
You don't love the game as you should.
For your attitude unto the sport you enjoy,
Isn't proven by brilliance or force;
The proof of a golfer - now get this my boy,
Is the care that you take of the course.

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Pritchard returns to La Quinta

LA QUINTA, Calif. — **Jeff Pritchard**, former superintendent for PGA West, La Quinta Hotel Golf & Tennis Resort and Scottsdale's Desert Mountain, has been named course superintendent for Rancho La Quinta Country Club, according to Vice President/Project Manager Tom Cullinan.



Jeff Pritchard

Pritchard, a certified golf course superintendent, has more than 25 years of experience, most recently as superintendent for Paragon Golf Construction, a division of Golden Bear, Inc., based in North Palm Beach, Fla. Prior to that, he was director of agronomy and maintenance for Desert Mountain Properties in

Scottsdale. He earned a bachelor's degree in agronomic crop science from Oregon State University.

•••
ALPHARETTA, Ga. — Alpharetta Country Club has hired **Pat Stewart** as its superintendent. Stewart left his post at Lanier Golf Club in Cumming.

Also in Georgia:

• **Bob Flanagan** has moved from Jacksonville (Fla.) Golf & Country Club to the head superintendent's position at Stone

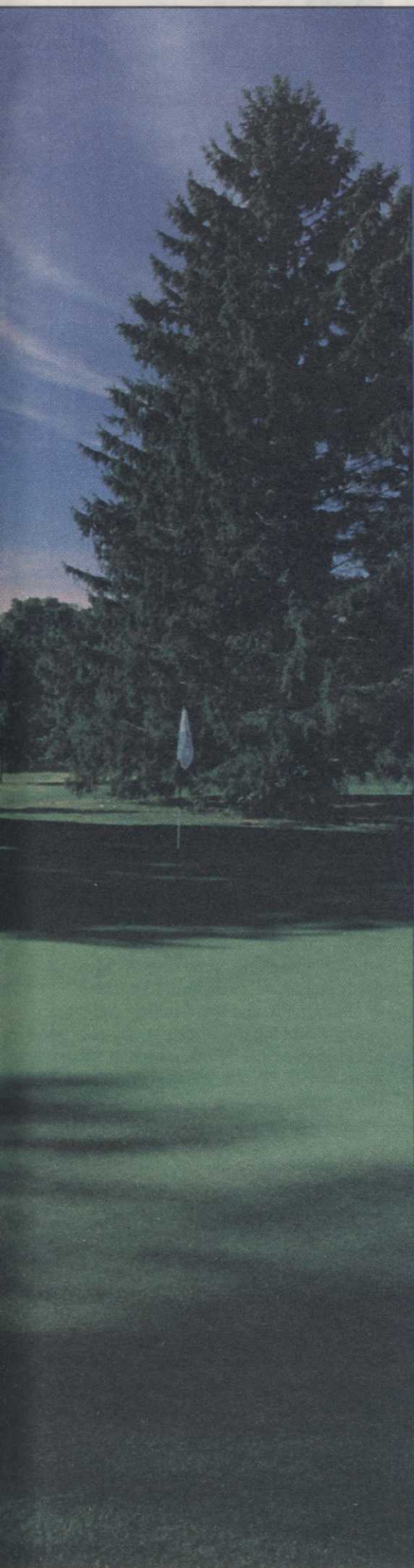


Bridge G&CC in Albany.

• Perry CC has promoted **Paul Carroll** from assistant to head superintendent, while Harbor Club in Greensboro promoted **Tom Amason**.

• **Brian Schutte**, former assistant superintendent at the Golf Club of Miami, has been hired as superintendent at Pine Oaks Golf Club in Warner Robins.

• **Steve Walsh** is the new superintendent at the Golf Club of Macon, having left an assistantship at Innsbruck Golf Club.



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CIRCLE #106

Global education

Continued from previous page

science and management,” said D.E. Aldous of the University of Melbourne in Victoria.

Aldous told ITS members that degree and diploma courses in turf management have long been offered at universities, polytechnics and colleges in the U.S., Britain, Australia and New Zealand, while there is a tradition of turf management training in South Africa, Switzerland, Germany, France, Japan and Sweden.

Turf programs are now being developed in Singapore, China and Malaysia, he said.

Viewed on a per-capita basis, Aldous said countries such as New Zealand were found to be training five times as many horticulturists at the degree and diploma level as Australia, where horticulture represents a smaller proportion of the country's rural gross national product. Figures suggest that in the United States, the proportion may be as high as eight times the Australian level, he added.

The survey also reflected that the American programs emphasize turf in higher education, whereas Australia, New Zealand and the United Kingdom place greater emphasis on diploma and vocational training.

Organics

Continued from previous page

learn to manage greens with a lower percentage of inert sands and a larger component of organic matter — hopefully, seething with microbial antagonists,” he said.

Wong pointed to the need for further research to evaluate *Brassica* and other plant residues for pest and disease control. He said, for instance, that fungicidal concentrations of ITCs vary for different fungi and little is known about the effects of water-soluble non-ITC compounds which have been shown to suppress nematodes.

“In the longer term,” Wong said, “it may be possible to breed *Brassica* cultivars with high concentrations of various GSLs to target specific pathogens.”

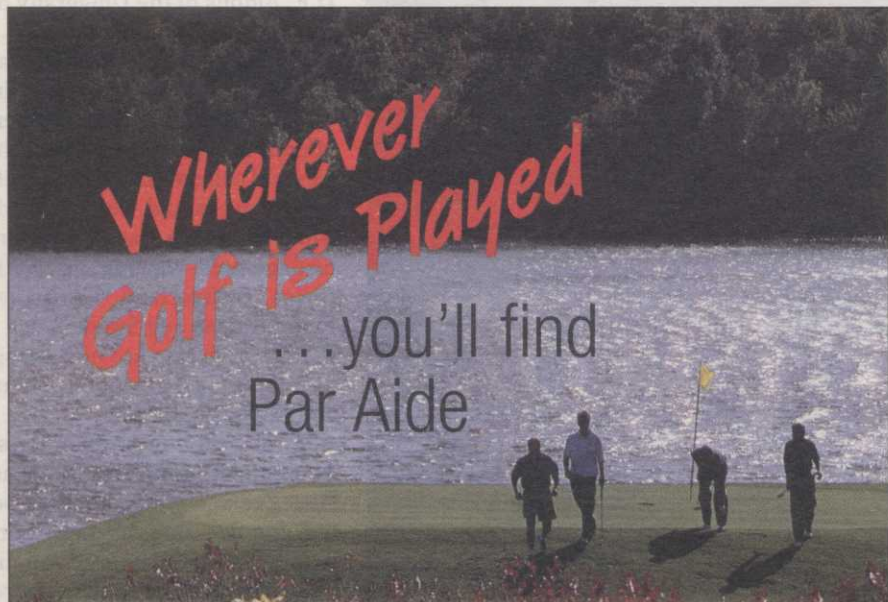
At the present state of knowledge, however, he suggested a “shotgun approach” in using *Brassica* cultivars to suppress as many pests and pathogens as possible.

Rutgers plans three-day ground-water course

NEW BRUNSWICK, N.J. — Groundwater professionals who wish to learn about the hydrologic, geologic and regulatory aspects of ground-water may attend a three-day course on Groundwater Resource Management: Pollution Sources and Remedies on Oct. 14, 21, and 28 at Rutgers University. Featured talks will highlight the New Jersey Administrative Code as it pertains to ground-water diversion permits, ground-water discharge permits and underground storage tanks.

Groundwater Resource Management is a presentation of the Cook College Office of Continuing Professional Education. Speakers from Rutgers University, Rutgers Cooperative Extension, the New Jersey Department of Environmental Protection as well as several private industry professionals will be featured.

To register and for more information, call Suzanne Soules at the Cook College Office of Continuing Professional Education, Rutgers University, at 723-923-9271.



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Safety closet keeps everything in its place for full-service care

By TERRY BUCHEN

OWINGS MILLS, Md. — A place for all and all in its place.

Superintendent Steve Glossinger took that concept to the maximum at Caves Valley Golf Club here by installing a full-service safety closet in the maintenance center's most visible area and main gathering spot: the employee lunch room.

"During their initial employee orientation, all the employees are shown the safety closet," Glossinger said, "and we follow up with subsequent employee safety meetings."

To facilitate employee help and safety, Glossinger turned a normal closet into the safety closet.

A prominent red sign on the door identifies it, giving a clue that inside are:

- three portable spill containment kits for pesticide or hydraulic oil leaks;
- related portable safety kits that contain rubber gloves and boots, protective clothing, eye wash, burn lotion and other ointments; and
- safety helmets and goggles, a full first-aid kit and medical supplies, ear plugs and oxygen bottles for quick action in case an employee gets injured out on the course.



Steve Glossinger's all-purpose safety closet at Caves Valley Golf Club.

Glossinger's maintenance facility coordinator checks all the supplies daily and replenishes them as needed.

Bunker crew has rakes, will travel

OWINGS MILLS, Md. — "Have bunker crew, will travel."

It's Steve Glossinger's calling card. Like an itinerant preacher carrying his Bible from stop to stop, Glossinger has a 10-man bunker crew that has followed him from Point O'Woods Golf and Country Club in Benton Harbor, Mich., in the late 1980s to Oakland Hills Country Club's South Course in Bloomfield Hills, Mich., and now to Caves Valley Golf Club here.

"It's the identical crew," said Glossinger, pointing to his men's skills honed through preparing Point O'Woods for the Western Amateur each year and Oakland Hills for the 1996 U.S. Open.

Having proved the unit's stuff, Glossinger, crew chief Alberto and a turf student intern took the 10 veterans to Congressional Country Club in Bethesda, Md., to care for the course's bunkers the entire week of the 1997 U.S. Open. They left Caves Valley at 4:30 each morning for the one-hour drive to Congressional.

The crew, all Mexican-Americans, handle the bunker work in its entirety: edging, checking sand depth with grade stakes, de-weeding, adding sand or changing it, and hand-raking daily.

Any plans for the future — say the next U.S. Open at Pebble Beach in the year 2000? "We'll be there," said Glossinger.

One-day wetlands courses scheduled

NEW BRUNSWICK, N.J. — Rutgers University is offering two one-day courses regarding wetlands.

Introduction to Wetland Identification will be held Sept. 13 in Basking Ridge, while Hydrology of Wetlands will be conducted Sept. 25 in Sussex County.

Rutgers experts said wetlands are biologically diverse, ecologically and economically valuable, and heavily regulated. If a person's work involves these sensitive areas, they need to know how to recognize them, Rutgers said. The Wet-

land Identification course will introduce wetlands and the major features used to identify them, including vegetation, hydrology, and hydric soils. Credits have been approved by the N.J. Board of Real Estate Appraisers.

The second course will teach how wetlands are created and sustained by hydrologic and geomorphic factors. Lectures will cover the hydrologic criteria used to delineate wetlands outlined in the 1987 USACOE Manual and the 1989 Federal Manual used in New Jersey.

To register or receive additional information, people may contact the Cook College Office of Continuing Professional Education at 908-932-9271.

Ten students receive Legacy Awards

Ten outstanding students, all sons or daughters of members of the Golf Course Superintendents Association of America (GCSAA), have been named 1997 Legacy Award winners.

The program, which awards a \$1,500 scholarship to each student, was created in 1990 and has been administered by The GCSAA Foundation in partnership with Novartis Turf & Ornamental Products since 1993.

Winners were selected by an independent panel of judges on the basis of academic excellence, extracurricular activities and an assigned essay describing their parents' or grandparents' involvement with the golf course management profession. The 1997 Legacy Award winners include:

- Sheeley Sousa Albert, daughter of Manuel L. Sousa, Poppy Hills Golf Course, Pebble Beach, Calif., majoring in pharmacy at the University of California, San Francisco.

- Jennifer D. Beer, daughter of Paul Gary Beer, Wolf Creek Golf Links, Olathe, Kan., majoring in pediatric nursing at Kansas State University.

- Natalie D. Broughton, daughter of Jerry W. Broughton, The Greens Golf and Racquet Club, Oklahoma City, Okla., majoring in music education at Oklahoma Baptist University.

- Lindsey M. Gast, daughter of David C. Gast, Jupiter Hills Club, Tequesta, Fla., majoring in biology at the University of Florida.

- Robin C. List, daughter of Thomas K. List, Ocean City Golf & Yacht Club, Berlin, Md., majoring in English at Goucher College.

- Corey Lyon, son of Dennis D. Lyon, city of Aurora, Golf Division, Aurora, Colo., studying to be a doctor of osteopathy at the College of Osteopathic Medicine in Kansas City, Mo.

- James C. Matchen, son of Michael Matchen, Wilmette Golf Course in Wilmette, Ill., majoring in psychology at

Illinois State University.

- Amy Mounts, daughter of Peter B. Mounts, Tipsinah Mounds Country Club, Elbow Lake, Minn., majoring in computer science at the University of Minnesota.

- Shelby K. Quinn, daughter of Dale B. Quinn, Vass, N.C., majoring in biology at the University of North Carolina at Chapel Hill.

- Jennifer Elizabeth Russell, daughter of Randolph Russell, City of Austin, Parks Department, Austin, Texas, majoring in business at Emory University.

Quayle addressing general session

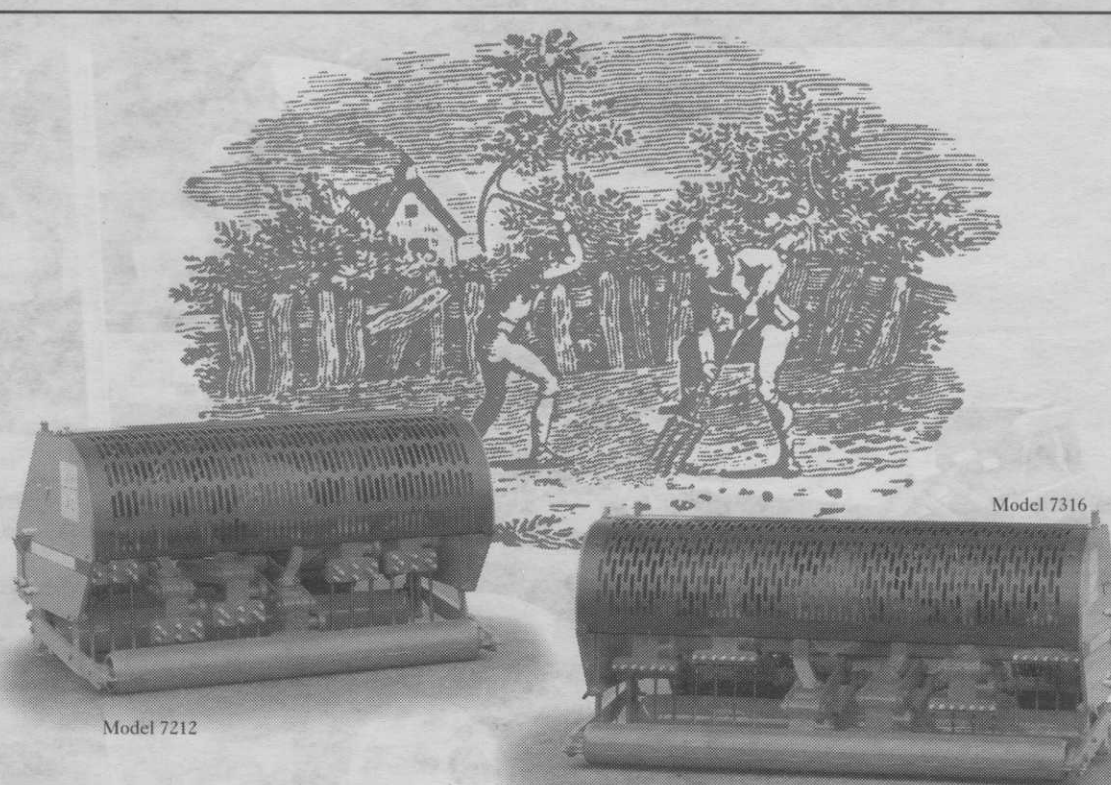
ANAHEIM, Calif. — Former Vice President Dan Quayle will address attendees of the Golf Course Superintendents Association of America's (GCSAA) 69th International Golf Course Conference and Show Government and Environmental General Session here at 6 p.m. Feb. 5.



Dan Quayle

Quayle, an avid golfer who was a 1997 U.S. Senior Open entrant, will

address the issues of commitment to family, personal value structure and his career. His tenure in Washington, D.C., began at age 29 when the voters of Indiana elected him to the House of Representatives. He won election to the Senate at age 33. At age 41, he won election as George Bush's vice president on the Republican ticket.



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tive of many maintenance-saving features that have been added like sealed bearings. Every change helps make the new generation more user-friendly. Each model has that characteristic construction durability that you've come to expect from Verti-Drain and because they're lighter, lower horsepower tractors can be used with them.

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Association opens service center

LAWRENCE, Kansas — The Golf Course Superintendents Association of America (GCSAA) has opened a service center to process telephone calls and requests for information from GCSAA members, the general public and the media.

The service center is in operation Mondays through Fridays. Service center representatives will have at their disposal a wide array of information that will allow callers to have questions answered in "one-stop" rather than being transferred from department to department. Should callers desire additional information or wish to be connected directly to a specific department, that can be done.

The service center will be able to handle virtually all GCSAA member requests, including seminar registration, address changes and payment dues. Computer software will allow calls to be monitored for time on hold, length of conversation and materials requested in order to create a database to better serve the caller in subsequent service center inquiries.

By MICHAEL HURDZAN

Design, maintenance a crucial marriage

PART 1 OF 2

In no other form of construction are design and maintenance so closely intertwined as with golf courses. Both are driven by the same objective: to provide the golfer with the most pleasant recreational experience possible. To reach this objective, designers and superintendents must be fully sympathetic to each other's purposes and problems. Some of the is-

ssues involved and some of the compromises both must face regard drainage, earthmoving, greens and green surrounds, tees and bunker design.

First, maintenance is more important to the golfer than design. Given a choice between a well-designed but poorly maintained golf course, or a poorly

designed but well-maintained one, the golfer will nearly always choose the best maintained.

Second, maintenance often has a greater influence than design on a course's difficulty and speed of play. When greens are kept fast, fairways lush and nar-

row, roughs long and sand bunkers soft, you can bet the course will play difficult and slow.

Last, it is the visual impact or interesting patterns of color, texture and height that help make a course memorable and enjoyable. Usually this is achieved through mowing patterns, landscaping and selective maintenance, all under

the superintendent's control.

This means the superintendent should be given more credit for making a round of golf an enjoyable experience. (Such influences of superintendents are more than 100 years old, for in researching old magazines I continually find references to the great condition of a course, with only occasional mention of the design).

Because of the role of maintenance, a superintendent should be hired early in planning.

DRAINAGE MOST CRUCIAL

The single most important element of a golf course is drainage. Everyone has heard the story of the superintendent who was asked what it takes to keep a golf course beautiful. His reply: "About 5 percent common sense and 95 percent drainage, and if you don't have much common sense, then put in more drainage."

Drainage is especially significant to effectively practice Integrated Pest Management.

Two elements of drainage must be studied and coordinated: surface drainage and sub-surface drainage. Unless a site has perfect internal drainage or no rainfall, the entire site must be analyzed for its drainage characteristics and patterns, and these should be planned for until all of the water leaves the site. This usually means a system of drainage swales, catch basins and revetments that exhaust into pipes or tile, a tile system for all greens and bunkers, a series of ponds and drains, and sometimes a retention-detention basin.

The flatter the site and/or the tighter the soils, the more important and complicated drainage becomes. Drainage installation can be expensive, so many times the course architect must cut back on the scope of drainage in order to stay within the budget. Many believe drainage can be installed later, but earthmoving and amended soils for greens must be done now. It is a compromise of the "ideal" and the "adequate." The designer and superintendent know the value of drainage and must try to convince the owner not to compromise, but often this is futile.

Sadly, this is also true of almost every facet of course construction, but golf course developers must fully understand what complications they are causing.

EARTHMOVING A CRITICAL FACTOR

Earthmoving can be another design consideration related to maintenance, especially if it creates better drainage patterns, softens steep grades that might be difficult to water and mow, or reduces traffic funnels or barriers. Specifications that preserve topsoil, insure compaction and pro-

Continued on next page



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CIRCLE #131

Dr. Michael Hurdzan is a course architect with a PhD in environmental turfgrass physiology.

GOLF COURSE NEWS



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Mobile units: Northwood equips carts with divot bottles

By TERRY BUCHEN

DALLAS, Texas — The Northwood Club is under the care of new superintendent Scott Ebers, which has a caddie program along with electric golf cars for their members and guests to use.

"Each of our golf cars has one soil divot bottle, instead of the normal two, because of other equipment mounted on each car," Ebers said. "As golfers play the par-3 9th hole, or the 10th hole, they can exchange an empty soil divot bottle with a filled one simply by picking one up on the back of the tee benches on these two holes."

The bottle holders and bottles were purchased from the golf car distributor and then bolted to the benches, Ebers said.

"The soil bottle holders blend in nicely with the benches because of their black color," he said. "Because we do not oversee the golf



Soil and seed bottles loaded and ready.

Terry Buchen photo

course with Bermudagrass for winter time golf, we do not add any seed to the soil bottles. Each bottle holds straight sand, the same sand that was used in each of the teeing grounds construction, which



ON THE GREEN

is also used on fairway and rough divots as well.

"Each soil bottle is filled each morning and then checked midday and in the afternoon, as needed," Ebers added.

A marriage made in golf

Continued from previous page

vide for clean fill material are other design influences that impact maintenance.

Superintendents should advise designers on any areas that may complicate maintenance or require hand work. Many times such problems can be addressed during earthmoving.

GREENS DIRECTLY DICTATE MAINTENANCE

Greens are the most intensively maintained part of a course, and their design directly dictates future maintenance. Greens design should first produce good surface and subsurface drainage. My personal approach is to design greens that surface-drain in three or four different directions, not just one.

Secondly, we always install tile on 15- to 18-foot centers and backfill them with 1/4-inch pea stone under putting surfaces and bunkers. Finally, we try to stay around 1-1/2 percent slopes within probable hole locations.

The type of root zone used in greens should be based on water-quality analysis of the proposed irrigation supply, the turfgrass to be used and the microclimate of the green or golf course. Selecting a green construction method by any other way ignores the design/maintenance relationship.

Green surrounds should be designed to provide room to turn greensmowers, spread out foot traffic, permit collar mowing with a triplex machine, reduce the amount of sand blasted out onto the green, and combat localized dry spots on putting surfaces caused by super-heated sand faces. If mostly riding machine maintenance is expected, then 12-foot collars are needed. But if anticipated budgets allow for hand maintenance, 3-, or 4-foot collars will work.

Irrigation systems can be designed to deal with such site influences as wind, soils, slopes, microclimate and turfgrass types. Individual head control on greens is considered a minimum so that each section of the green can be individually irrigated; and often there are additional heads to water the green surrounds if they have different requirements. Quick couplers for hand-watering are always installed and their location, as well as the type of control system and location, should be done in consultation with the superintendent.

Greens should be designed to provide adequate cupping area. Our personal goal is 15 to 18 separate and distinct hole locations. This spreads out foot traffic and adds interest to the course. We like

to have four or five of these cupping areas to be very demanding in shot value, and the remainder very forgiving of errors on approach shots.

TEES AND BUNKERS

On tees, the design intent is to provide not only strategy and interest through multiple settings, but to enhance maintenance by providing surface drainage, adequate space to spread out traffic, insuring good air drainage across the tee, and providing an appropriate irrigation system.

The rule of thumb for adequate size is 150 square feet for every 1,000 rounds played on wood shot holes. That is, for 20,000 rounds a year, an adequate tee size for par-4s and par-5s is 150 x 20, or 3,000 square feet. The rule on the iron shot holes (par-3s) is 200 square feet per 1,000 rounds of golf played.

Designer and superintendent will have many discussions on bunker style, shape, size, slope and sand size. Some favor flat sand because it is easy to rake, and in their minds is the most natural form, speeds up play, etc.

Others, like myself, think of bunkers as message boards meant to communicate certain information to the golfer, and as such we prefer splash bunkers and or high sand faces. My bunkers are not easy to care for. In fact, only 75 to 80 percent of each bunker can be raked with a power sandtrap rake. The rest is hand labor.

It is the client's decision between ease of maintenance or flash. However, no matter what bunker type is used, there are some general design techniques and specifications related to maintenance.

First, the bunker should be built to reject surface water from running into it, especially on sand faces, to reduce water erosion. This means that all edges of the bunkers should be at least a couple of inches above grade.

Second, the bunker should be drained either by tile or French drain. Also, the bunker bottom should be perfectly concave or bowl-shaped, smooth and compacted before sand is installed. Sand depth should be at least 6 inches — and 8 inches is preferred. The sand should be of angular shape and in the range of .25 millimeter to 1 millimeter, favoring the larger particles in windy areas. Color doesn't matter.

It is strongly recommended that grass bunker faces be treated with growth regulators, or planted to slow-growing grasses to reduce the need for edging and mowing.

Next month: The single most important specification that influences maintenance: selection of the turfgrasses.

HUSQVARNA, TRIMS JOIN PLATINUM CLUB

Husqvarna Forest & Garden Co. and TRIMS Software International, Inc. have joined The Golf Course Superintendents Association of America (GCSAA) Foundation's Platinum Tee Club. The GCSAA Foundation is committed to advancing environmental and scientific developments in golf course management, providing educational opportunities for member superintendents and turfgrass students and preserving the history of the profession. The Platinum Tee Club is the premier support organization of The GCSAA Foundation and consists of GCSAA affiliate chapters, industry partners, allied golf associations and golf facilities that contribute more than \$5,000 annually to support The Foundation's Annual Appeal.

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By TERRY BUCHEN

Jack of all trades, master of many

While growing grass continues to be the most important priority for a superintendent, it often is the easiest part of the job, and the number of other "hats" he or she wears — their many and diverse roles and responsibilities — seems to grow each year.

The ultimate job description of a modern superintendent? Being an expert in the following areas:

- **Agronomist** — having a knowledge of turfgrass soils and water exacting standards; aspiring to certified golf course superintendent status.

- **Environmentalist** — writing and practicing an IPM plan and being a licensed pesticide applicator, Audubon Cooperative Sanctuary System member and wetlands protector, and complying to pesticide storage regulations.

- **Insurance and Safety Expert** — training and implementing right-to-know rules; operating a hazardous communication plan and training and an emergency



- evacuation plan; obeying OSHA safety rules and fuel- and oil-storage regulations; ensuring a safety committee for all employees, liability and workman's compensation; and being prepared for safety insurance inspections.

- **Meteorologist** — subscribing to the Weather Channel and monitoring irrigation weather stations and computer satellite weather stations; being able to "feel"

the weather; weather prognosticator.

- **Surveyor** — understand and operate a rod, transit and laser technology.

- **Engineer** — designs subsurface drainage systems; additions and modifications to irrigation system; oversees building maintenance; pumphouse and well pump maintenance.

- **Horticulturist** — installs lightning rods in trees; prunes trees and shrubs; fertilization and pesticide applications; tree master plan designer.

- **Floriculturist** — annual, perennial and wildflower expert.

- **Lawyer** — implements and approves complicated maintenance and construction contracts; administers business law.

- **Contractor** — acts as general contractor overseeing sub-contractors.

- **Personnel Manager** — clearly understands and manages complex employee work laws; properly displays employee state and federal work posters; employee time card and overtime documentation; oversees employee personnel files; settles any disputes; keeps employees happy and productive.

- **Accountant** — prepares and oversees maintenance and capital budgets; codes invoices to appropriate budget accounts; maintains petty cash fund; oversees financial statements; capitalizes on early payment discounts.

- **Mechanic** — oversees preventative maintenance and repair of all golf course maintenance equipment; properly disposes of used fluids.

- **Carpenter, Plumber, Electrician** — builds and maintains inhouse projects.

- **Leader** — builds and promotes the team concept; practices total quality management in the maintenance department; is a good listener to employees' ideas and suggestions.

- **Architect** — maintains the course as the architect originally designed it to be played; renovates and restores the course while keeping the original design intact.

- **Scientist, Entomologist, Plant Pathologist** — identifies and controls insects, diseases and weeds; uses biological controls whenever practical; inventories complex identification equipment, tests new grasses and experiments with new compounds.

- **Rules of Golf Official** — maintains and marks the course according to the USGA Rules of Golf and all local rules.

- **Communicator** — writes monthly column for club/course newsletter; meets regularly with other department heads; attends committee and board of directors meetings; keeps their boss informed of what they need to know.

- **Public Relations Person** — telling the media and public about the good things happening on golf courses; joining the GCSAA Speakers Bureau; speaking engagements to schools, Kiwanis-type and Garden Club-type groups about the environmental friendliness of golf courses.

- **Teacher** — instructs turfgrass student interns; teaches weekly turf club meetings; oversees all employee training.

- **CEO** — administers the entire department as Chief Executive Officer. Or, in this case, CAO (Chief Agronomic Officer).

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Golf Course Superintendents:

Row 1 Bottom: (left to right) Tom Fornasar~Forest Greens GC, Kent Dornbrock~Woodford Hills, Gary Buettel~Lost Creek CC, Tim Wilk~Chestnut Ridge GC, Greg Johnson~Eagle Brook, Ed Braunsky~Geneva GC, Luke Strojny~Poplar Creek CC, Dennis L. Bowsher~Spring Valley CC, Larry Wimmers~Sycamore Creek CC
Row 2: Michael Bohenstingl~The Preserve GC, Jim Taylor~Boulder CC, Michael Burns~Valleaire GC, Lou Quick~Anglebrook, Tom Fuller~Rush Creek GC, Joe Wachter~Eagle Springs GC, Robert Panuska~Waseca Lakeside C, Ric Lange~Meadowbrook CC, Tim Kline~Garland Firewheel GP, Mark Wilson~Valhalla GC
Row 3: Bob Figurella~Brookside, Michael Siefken~Woodstock CC, Ted Fist~Wynstone GC, Gary Peters~Highland CC, Steve Numbers~No. C. Westfield CC, Mike Nelson~Rush Creek GC, F. Dan Dinelli~North Shore CC, Gary L. Chambers~Firewheel GP, Matt Shaffer~The Country Club
Row 4: Paul Richter~Spring Lake CC, Jon O'Connor~Gull Lake CC, Wes Flower~Ft. Sam Houston GC, Tom Hamulak~Bear Creek GC, Dan Anderson~Fox Valley GC, Paul Grogan~Harrison Lake CC, Patrick Franklin~Plum Creek CC, Tommy Anderson~Broadmoor Hotel.

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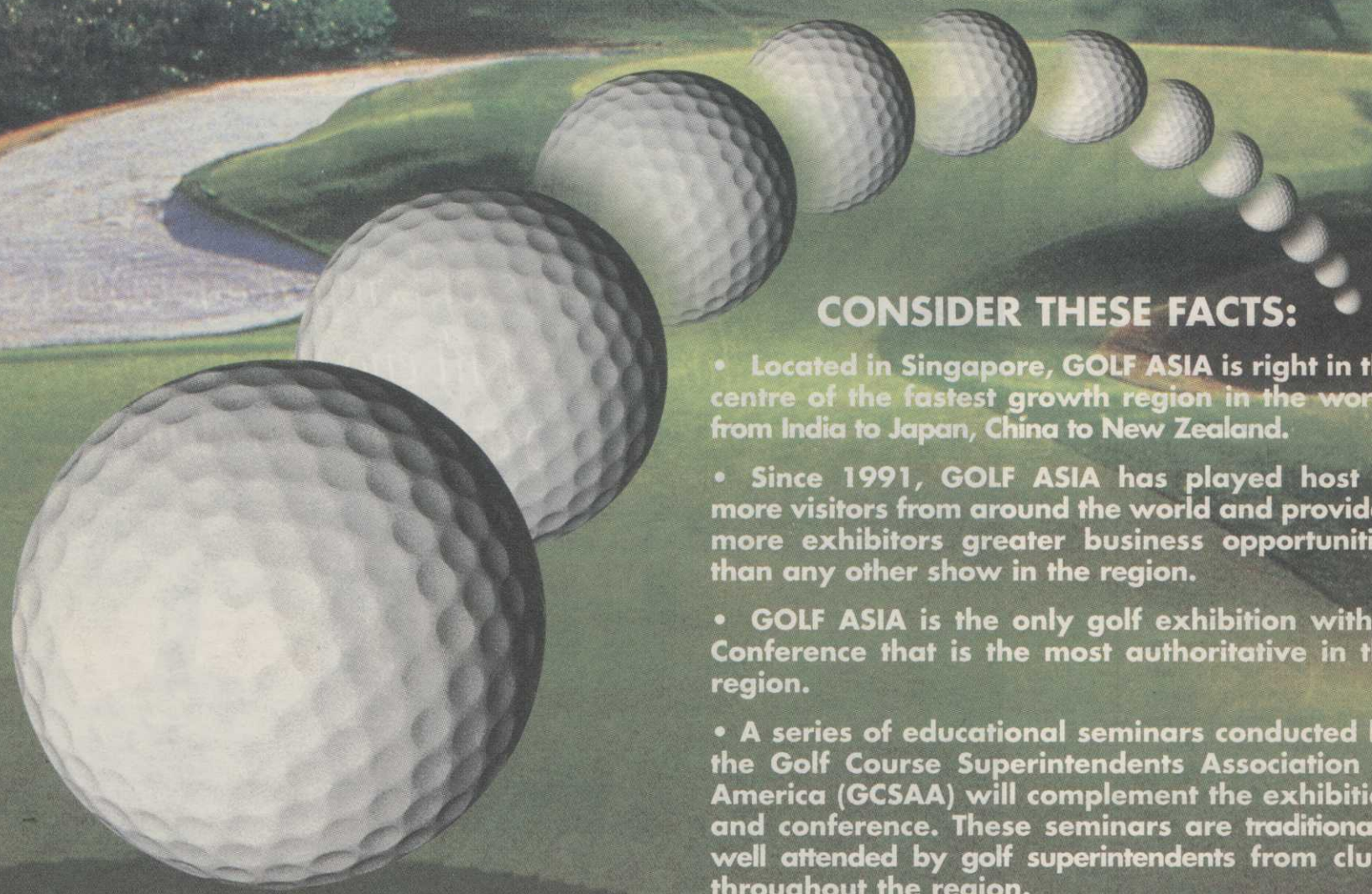
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Rieke reveals metal spike, top dressing, greens rolling research

Dr. Paul Rieke has taught turfgrass soil management at Michigan State University for nearly 30 years and has received



Dr. Paul Rieke

numerous honors, including the United States Golf Association Green Section and Golf Course Superintendents Association of America Meritorious Service awards. He has conducted major research projects in the cultivation (aerification) of turfgrasses, topdressing putting greens, fertilization and soil testing, and mulching tree leaves into turf.

Golf Course News: We understand you have been doing research on the effects of mixing native soils and top dressing sand while using the Toro Hydroject aerifier. What have you found?

Paul Rieke: Superintendents wondered if mixing sand and soil would effect water movement or create rooting problems. Our data indicates this isn't occurring, as long as the Hydroject is used once every two to three weeks. Using it more often can shorten root lengths. But even those shorter roots are whiter, indicating they are generally stronger than the older brown roots.

We're also seeing a reduction in the number of earthworm casts [soil deposits]. Using the Hydroject every two to three weeks is either killing the worms or causing them to move away. You don't want earthworms on putting greens or tightly cut fairways. But they are a real asset in soils where you have drainage problems.

We've also been injecting phosphorus, potassium and nitrogen deeper into the soil with the Hydroject. It's unclear whether this has any positive effect. It appears the turf doesn't care how deep those materials are injected as long as they are available in the top 2 inches of the soil layer.

Finally, the Hydroject seems to create faster green speeds for a day or two, similar to what a roller would do. It's a side benefit.

GCN: Have you done research on the effects of rolling greens?

PR: Yes. The increased speeds seem to last a couple days and there are no detrimental effects to rolling that often. Rollers also seem to reduce mower scalping when the grass is growing fast.

GCN: What has your top dressing research revealed?

PR: Light and frequent top dressings work best. Sand should be applied at the same frequency as thatch accumulates so you can keep the greens uniform rather

than getting a thatch-grass-thatch-grass surface. The trouble is that golf courses host so many tournaments, it's difficult for superintendents to top dress as frequently as they'd like. In cool-season areas, greens should be top dressed every two to three weeks during the fast-growing spring and fall sea-

Q & A

sons and every four to five weeks during the slower-growing, mid-summer months. It's tough to work that in with a busy tournament schedule. But if you don't top dress regularly, you end up with layering and the need to aerify more often. Superintendents need to make their

members and customers aware that if they want healthy turf, it's either more frequent top dressings or more aerifying. If you have the right equipment, golfers barely notice the difference after a light top dressing.

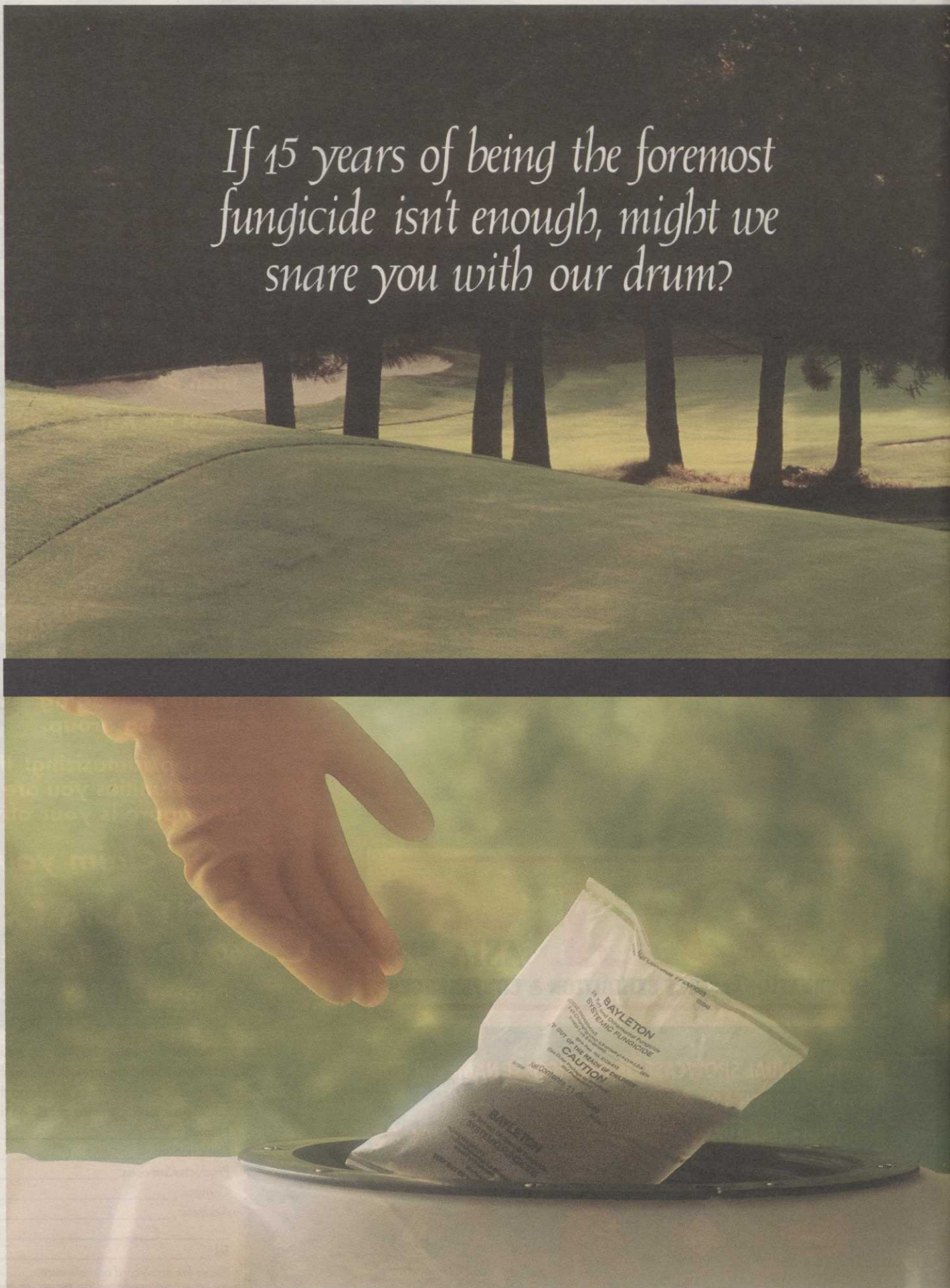
GCN: What is your research on alternative spikes showing?

PR: Clearly, especially with

bentgrass, metal spikes lift up the stolons, which slows putting speeds and causes additional wear. With alternative spikes, we see less detrimental impact. We've looked at Softspikes and Green Spikes so far. They are about the same in saving on the green. We'll be looking at many other alternative spikes.

GCN: What have your nutritional balance studies shown?

Continued on next page



If 15 years of being the foremost fungicide isn't enough, might we snare you with our drum?

Gary's Green carries Grigg name

By TERRY BUCHEN

BURLEY, Idaho — Gary T. Grigg, past president of the GCSAA, and his brother Mark have continued on with the success of The Grigg Brothers Co., a firm their father and uncle founded when they ventured into real estate, farming and later sold their produce business in the 1960s af-

ter it became Ore-Ida Foods.

Three years ago, Mark approached Gary about branching out his fertilizer business to include high-tech liquid fertilizers for golf courses with four other partners, including Timothy D. Long, a superintendent in Austin, Texas. The rest is history.

Bio Turf Gro, a division of The

Grigg Brothers, started working with Dr. Gene Miller, an agronomist and formulator for the company and professor emeritus at Utah State University, a plant physiologist, plant nutritionist and plant biochemistry expert.

What makes Bio Turf Gro's products unique is chelating the nutrients with natural organics

for foliar feeding, which makes the nutrients go into the plant quicker and makes those nutrients more readily available.

Miller pioneered using multiple chelating agents in Bio Turf Gro's products, instead of a single chelating agent that is used in other products. Miller also recognized using a blend of all-rganic



Gary Grigg

chelating agents, instead of synthetic agents, which are a blend of organic acids, amino acids and carbohydrates acids. Formulas change from product to product, so each of the company's products has the stron-

gest chelating effectiveness and he uses enough chelating agents, regardless of cost, to chelate 100 percent of all of their products.

Bio Turf Gro's liquid fertilizers are completely balanced, for foliar or root feeding, and their No.-1 seller is Gary's Green.

Named for Gary Grigg, Gary's Green is a 18-3-4 + Iron, which has all three nitrogen sources for spoon-feeding organics and chelates. Gary recommends regular tissue testing and using a foliar feeding rate of between 2 and 7 ounces per 1,000 square feet.

"Using a foliar feeding of our products," he said, "has a distinct advantage as it is quick-acting, does not have to be watered in, does not need good root development for uptake, does not leave granules on the putting surface, is highly effective and fertilization is not affected by rainfall."

The Griggs' number-two seller is Nutra-Green 5-10-5 + Iron.

Not all of their products are liquid. 9-3-5 Bio Turf I is a totally organic granular product made of fish waste, which has the highest nutrient availability in any organic product, and is a California-certified all-organic product.

"We go to great lengths to have high-quality products, regardless of the cost, as we feel it is truly worth it as our client base will also pay good money for good products," Grigg said.

For further information contact Bio Turf Gro at 1-888-246-8873 Office; 208-678-5041 Fax and <http://www.bioturfgro.com>.



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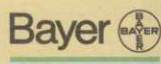
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Q&A: Rieke

Continued from previous page

PR: In sandy soils, like USGA greens, you need to introduce more phosphorus, potassium and nitrogen, because the soils simply can't hold those materials.

GCN: Where will the greatest changes occur for superintendents over the next five to 10 years?

PR: Water will become an increasingly important issue, especially delivery systems and uniform application.

There will be continuing efforts to increase green speeds. That will put additional pressure on superintendents, who are already working on the edge with these low mowing heights.

Finally, there will be increased pressure to use organic and biological controls. But golfers have to understand that these materials make it difficult to have perfect turf all the time.

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"We've used Bensumec™ 4LF for four years making split applications in the spring, and sometimes a fall application, too. I am more comfortable with this preemerge than with PGRs for our greens and tees. And we've had excellent control of *Poa* as well as crabgrass and other weeds."

Stuart Cagle, CGCS
Old Oakland Golf Course
Indianapolis, IN



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James M. Taylor, CGCS
Hatsuho International Country Club - Dededo, Guam



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Eric Moore, President
Moore Landscape
Glenview, IL

"During the construction of this course in 1989-90, our owner bought a nearby tree farm, a spade truck and enough Transfilm for 2,700 Scotch pines 6 to 15 feet tall. Also, over 700 deciduous trees were planted. We were told to expect losses of around 300 trees, but thanks in part to Transfilm, our replacements totaled less than a hundred."

Frank Moran, GCS
Beaver Run Golf Course
Grimes, IA



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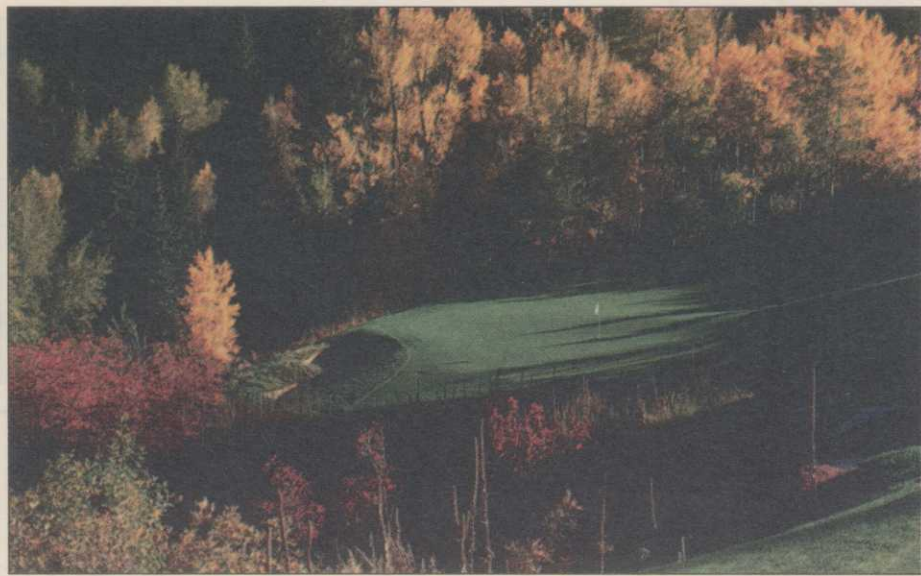
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A list of all participating superintendents will be provided to The GCSAA Foundation when the donation is presented at the 1998 Conference and Show.

For participation certificates, or for further information on this unique program, call The GCSAA Foundation, or call us direct 1-800-821-7925.





Maroon Creek Club in Aspen, Colo. (above) ablaze with color in early fall...

Potassium: The winter set-up

By PETER BLAIS

One of the best ways to protect golf course turf against the cold months ahead and help it green up earlier in the spring may be a fall application of potassium, according to manufacturers and researchers.

"The ability to apply coated potassium in the fall to winterize and still have nutrient available to feed once the soil warms up again in the spring could be the biggest asset to courses," said Tim Lacy, product manager of Pursell Technologies Inc., manufacturers of a slow-release potassium fertilizer using a temperature-activated POLYON polymer coating.

"Potassium's ability to strengthen turfgrass and act as an antifreeze has been well researched and documented. Likewise, its role in the transition process is considerable — this provides a welcome jump start to the spring feeding schedule."

An adequate supply of potassium can help grass plants produce carbohydrates longer into the fall, which in turn allow the turf to tolerate lower temperatures without freezing, according to Michigan State University turfgrass researcher Dr. Paul Rieke. Even with the shorter daylight hours and cooler nights, the photo-

synthetic process that creates carbohydrates continues into the late fall.

"How far north or south a course is located plays a role in how long the potassium is needed," the MSU professor said.

In his book, *Management of Turfgrass Diseases*, MSU researcher Joe Vargas writes: "After nitrogen, the two most important elements for growing plants are phosphorus and potassium. The role of these elements in controlling diseases has not been determined, although [J.H.] Madison explains how the interaction of nitrogen, phosphorus and potassium affects specific diseases."

Indeed, researchers aren't certain exactly how potassium increases a plant's cold tolerance or fights disease, said University of Nebraska researcher Terry Riordan. Potassium is also known to improve a plant's traffic, heat and disease resistance.

"It seems to increase root development, which makes the plant more tolerant of many stresses," Riordan said. "The feeling in the research community seems to be that potassium is important."

One of the things researchers do know, however, is that potassium leaches quickly out of sandy soils, such as putting greens.

Using slow-release fertilizers has been shown to help reduce potassium leaching. Potassium-containing fertilizers can last anywhere from six weeks up to a year, according to Pursell's Lacy.

Mike Peterson, Northeast regional manager with The Scotts Co., which manufactures a slow-release potassium called Super K Turf Fertilizer, said a fall application should be made at least a month before the turf goes dormant.

"Potassium should be available to the plant all year since there is no time of year when it isn't under some type of stress," he said.

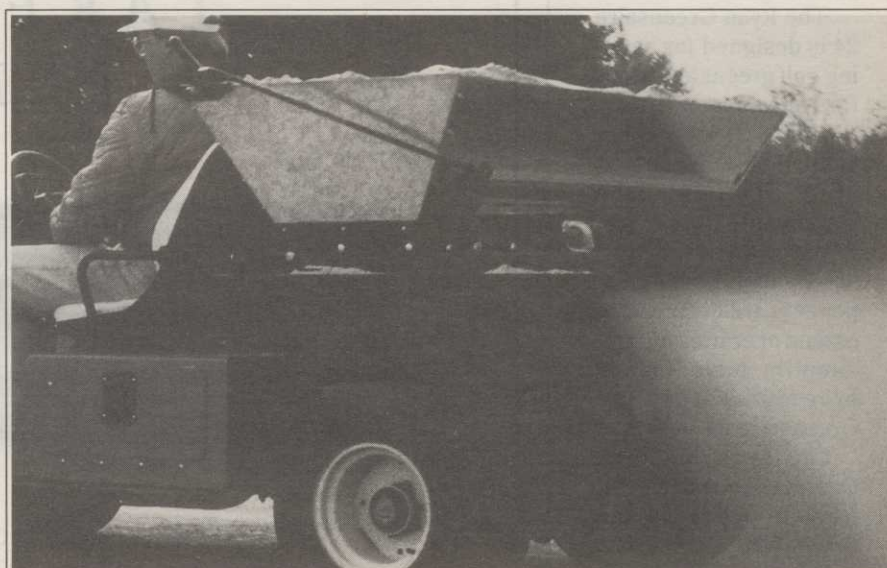
Superintendents seem to be getting the potassium message.

"Many superintendents will put down three times as much potassium as nitrogen," said agronomic consultant Terry Buchen. "It works very well, especially on cool-season grasses."



...and resting under a winter blanket of snow.

Dick Durrance II photographs.



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Steiner tractor does fall, winter chores

Steiner Turf Equipment recently introduced the company's new Model 430 Max tractor designed to provide more versatility, more features, and more power.

The 430 Max features an articulated frame, power steering, constant 4-wheel drive, and a hydrostatic transmission. Added to the illuminated dash is a tachometer, fuel gauge, and volt meter. A water temp gauge is included on liquid-cooled models.

Four engine options include a 20-HP Onan, 21-HP Kubota diesel, 21-HP Kubota gas, and 25-HP Kohler.



Floatation tires allow the machine to move gently over terrain while delivering power and sure-footedness.

A deluxe seat and easy-to-use hand controls make this a machine of comfort and ease of operation. The 430 Max accommodates all of the more than two dozen Quick-Hitch, front-mount attachments, making it a year-round machine as it mows, blows, sweeps, digs, shreds, plows and more.

For information contact Steiner Turf at 330-828-0200.

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HOUSTON — GREENSCHOICE soil amendment was developed to help improve the overall health and durability of golf greens.

Developed for standard topdress procedures and deep-tine aerification systems, this premium amendment breaks up compacted soils, leaving a permanently aerated root zone.

Based on the increased pore space created by the introduction of GREENSCHOICE into the root zone, percolation rates are

dramatically improved. Moisture/nutrient retention and capillary rise rates are also substantially increased by the material's natural porosity.

For more information contact Premier Environment at P.O. Box 218469, Houston, TX 77218; telephone 800/829-0215.

Ryan products help courses prepare for winter's chill

Ryan, a Ransomes company, manufactures aerators and overseeders that can help golf courses prepare for winter.

The Ryan Greensaire 24 is designed for aerating golf greens and other fine turf areas.

With a 24-inch swath and 2-inch x 2-inch aerating pattern, the Greensaire 24 can remove 36 cores per square foot. Major components are designed to extend operating life and simplify maintenance procedures of the Greensaire 24.

The Ryan Mataway Overseeder is designed for both overseeding and dethatching.

Traction and maneuverability are enhanced through front-wheel drive and knobby tread front tires. One lever operates both the forward drive and reel control. A specialized spring assist raises the overseeder for easier operation.

The Mataway Overseeder features a rate adjustment for proper seed flow and 2-inch row spacing allows for overseeding with one pass.

The Mataway Overseeder's 11-hp Kohler Command engine meets all current California Air Resources Board (CARB) emissions regulations.

For more information on these or any Ransomes product, contact Ransomes America Corp., P.O. Box 82409, Lincoln, Neb. 68501; telephone 800-228-4444.

Jake sweepers clean away fall debris

RACINE, Wis. — Jacobsen's Model 720 Sweepers cover a 5-foot cleaning path with a 5-cubic-yard capacity to get big cleanup jobs done fast. All three sweepers have a rubber-fingers pick-up system that gently removes wet or dry leaves, paper, cans, glass and other debris from your turf.

Models include a PTO-driven sweeper and two machines with self-powered pick-up systems

for use behind a variety of towing vehicles. The Model 720-EHL sweeper has a hopper lift that extends to 9 feet for unloading into a dump truck. Add an optional thatcher-thinner to combine sweeping and dethatching functions.

Galvanized steel construction means each Jacobsen sweeper is maintenance-free.

For more information contact 414-637-6711.

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		97 DAT	129 DAT
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PENDIMETHALIN 60WDG	1.5+1.5	98	98
BARRICADE 65WG*	0.75	100	100
DIMENSION 1EC*	0.5	99	99
TEAM .87 FG*	1.5+1.5	88	82

Ohio State University 1996

If crabgrass is a growing problem on your golf course, you're not using the right herbicide.

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No other preemergent offers a broader spectrum of control. Fact is, this high-performance herbicide

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And Pendimethalin has excellent turf tolerance. University and field research studies have shown that Pendimethalin provides consistent, superior weed control—yet offers tremendous tolerance to warm- and cool-season turfgrasses.

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CRABGRASS CONTROL			
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		84 DAT	154 DAT
PENDIMETHALIN 60WDG	3.0	100	93
PENDIMETHALIN 60WDG	1.5+1.5	100	99
BARRICADE 65WG*	0.75	100	95
DIMENSION 1EC*	0.5	100	86
RONSTAR 2G*	2+2	97	24

Virginia Polytechnic Institute & State University 1996

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Shredder made available for golf course use

Historically a manufacturer of large high way portable screening/shredding plants, The Screen Machine introduces the Might. This down-sized machine is affordable to the smallest of producers.

The Might has a 1-yard hopper with an 18-inch wide belt feeding material into a hammermill shredder and trommel screen. The 20hp diesel plant is fully operational for one

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Washer improves range maintenance

SGD introduces the new "Range Boss" ball washer, "The XL-21" for faster and improved golf range maintenance of golf balls.

The XL-21 is designed for the 21st century with unique features such as stainless steel construction for lifetime durability and superior looking. Easy out nylon

brush for removal of broken balls and/or stones along with snap-in and snap-out washer belting provides for gentle, yet thorough cleaning of golf balls. The unique "Ball Jogger" gives "No Jam Ball Feeding." This eliminates the need for a maintenance person to stay near the machine therefore, saves up to \$70.00 per week in labor.

This new ball washer also features easy service to the washing cylinder simply by lifting polymer hood. A large 2" drain provides for fast elimination of dirty water and mud. This new ball washer also has a GFI plug to insure electrical safety.

The new, XL-21 Ball Washer is designed to hold up to 1,000 balls in the hopper for the high-volume golf ranges.

For more information, contact Don Nelson at 800-321-3411.

Foley rolls out new grinders

Foley-United introduces the Accu-Pro series of grinders for the sharpening of reel-type mowing units. The Accu-Pro Spin/Relief grinder and Accu-Pro Bedknife Grinder have been designed to address the challenges of sharpening reel-cutting units. The machines are capable of returning reels to original manufacturer's configuration or performing the maintenance to any other level that is appropriate for the application.

The Accu-Pro Spin/Relief Grinder is a table-top style spin grinder with standard capability to relief grind with automatic blade advancement, standard reel lifting hoist, operator guarding to meet all safety requirements, fast and accurate setup of all reels by the use of a digital alignment gauge, and a tooling system that requires no tools to adjust and provides a method to record any setup for future use. This machine is capable of returning the reel to its original new specifications or any variation that the application requires as defined by the user. This machine is easy to use and provides the operator the ability to use various grinding techniques.

The ACCU-Pro Bedknife Grinder is unique in that the bedknife is held in the machine with electromagnets providing extremely fast and easy setup. Grind angles are easily set without individual setup calibration. A diamond dresser is standard. Operator protection is accomplished through an interlocked clear machine guard that stops the grinding motor when opened.

For more information, call toll free 1-800-225-9810.



contact with the germinating weed seed, it disrupts the seed's biochemical processes, which makes the weed seed stop growing—and start dying—before emerging.

What's more, Pendimethalin works hard—and long. Through the entire season. That's because its low volatility and slow decomposition characteristics keep it active in the soil longer.

Pendimethalin also makes your life easier. You have the flexibility to spread it on as a dry granule,

CRABGRASS CONTROL		
PRODUCT	Rate	% Control 120 DAT
PENDIMETHALIN 60WDG	1.5	97
BARRICADE 65WG	.48	92
DIMENSION 1EC	.38	95
RONSTAR 2G	3	92

Penn State University 1996

alone, or in combination with fertilizer products. Or you can use the sprayable formulations, available as a 3.3 EC, 60 WDG and 60WP.

No wonder professional turf managers have made Pendimethalin the #1 preemergent herbicide.

So take control of your turf—and your reputation. Use Pendimethalin herbicide to control crabgrass and more. Because the only thing you should see growing like a weed on your golf course is beautiful grass. Call now for more information or for the distributor nearest you.

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INSIDE

Upfront Prep
Dr. William Forello has ideas on sparing turf the effects of harsh winters. Start in the fall. 17

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High demand for sod stock. 53

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ALL IN THE FAMILY
Robert Trent Jones Sr. (left) has teamed with elder son Bobby to form a new architectural entity, RTJ Golf Ventures. For story, see page 37.

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Image enhanced but golfers insist on 'green' look

By PETER BLAIS
ORLANDO, Fla. — Most golfers view superintendents as trained professionals and the person most responsible for course conditions — news course managers should find encouraging considering national efforts to elevate their image. Disturbingly, however, few golfers recognize the Golf Course Superintendents Association of America (GCSAA) as the superintendents' national organization. Also troubling was the unwillingness of most golfers to accept poorer playing conditions in exchange for reduced chemical and water use on their courses. According to a recent survey of golfers conducted by the National Golf Founda-

Continued on page 30

STUDY SHOWS:

Name designers pull higher dues and green fees

By PETER BLAIS
HARRISBURG, Pa. — Private courses designed by signature architects command higher initiation fees and monthly dues. The study also found that signature architects' facilities have higher green fees, higher initiation fees, and higher monthly dues. The study is the first to show that signature architects' courses command higher initiation fees and monthly dues. The study is the first to show that signature architects' courses command higher initiation fees and monthly dues. The study is the first to show that signature architects' courses command higher initiation fees and monthly dues.

Continued on page 3

Griffith.



Shinn Golf Club in Niagara, Japan, a new design from incoming ASGA president, Denis Griffiths.

Ciba-Sandoz deal creates new firm: Novartis

By HAL PHILLIPS
Consolidation in the chemical trade continues apace, as Des Plaines, Ill.-based Sandoz Agro and Greensboro, N.C.-based Ciba — both divisions of enormous Swiss-owned pharmaceutical and life sciences conglomerates — have agreed to join forces, creating a \$6 billion agricultural giant. The new entity will be known as Novartis. Bill Liles, head of Turf & Ornamentals at Ciba-Geigy, for

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BRIEFS



SNEAD, CUPP TEAM IN GEORGIA

SAVANNAH, Ga. — Sam Snead will join architect Bob Cupp to design an 18-hole golf course as part of the \$98-million Westin Savannah Harbor Resort here. Westin Hotels & Resorts and CSX Realty Development have broken ground on the 290-acre project, which will include a 403-room, luxury hotel. The Westin-managed resort is scheduled to open in the spring of 1999. Troon Golf will operate the golf course.

NC State offers golf course architecture class

By MARK LESLIE

North Carolina State University so liked the golf course architecture short course offered last spring, that it invited Rich Mandell to return to teach this fall — this time for a full semester.

“Our big problem was, there is so much to teach. So we expanded to a full-fledged, three-credit, 15-week class,” said Mandell, vice president of Whole in One Design in Durham. “We’ll design some projects, starting with the students’ own fantasy hole, and include designing specific holes pretending to be Donald Ross or C.B. MacDonald for a day.”

Mandell, a University of Georgia alumnus who has worked for course designers Dan Maples and Denis Griffiths, had 25 students in the Landscape Architecture Program’s short course. They ranged from landscape architecture to turfgrass, sports management, civil engineering and forestry resource students.

History is a major part of the program, beginning with the links courses of Scotland. Students will be introduced to MacDonald, Ross, A.W. Tillinghast, Robert Trent Jones Sr., and others of the past as well as modern-day’s Pete Dye and Tom Fazio.

“We’ll speak about trends in design and how and why things were done in the past and why they aren’t done now,” Mandell said. “For instance, the influence of major equipment on design and construction; and how there was a move to ‘vanilla-ization’ in the early 1950s when, I think, courses were made too golfer-friendly, fairways were flattened to accommodate bad lies, and greens were open in front to accommodate bad shots.”

The class will also encompass routing, designing a course in a real-estate development, construction and construction documents, among other topics, Mandell said.

Phillips’ 1st solo project neighbors St. Andrews

By MARK LESLIE

KINGSBARN, Scotland — How many golf course architects do their first solo design on true linksland ... in Scotland ... 7 miles from the Old Course at St. Andrews? Number Kyle Phillips among them, if there be more.

Phillips, who started his own company in July after 16 years as a lead designer for Robert Trent Jones Jr., begins construction in October on Kingsbarns Golf Links here, on a site that hugs the rugged Scottish coast.

“I feel humble and very fortunate,” said Phillips, whose only other design in the United Kingdom was the highly ranked 27-hole Wisley Golf Club outside London in 1991. “You have to admit, St. Andrews is the Mecca for us golf junkies. To be able to do something on the sea this close to the Old Course is a phenomenal opportunity and an incredible experience. It’s pure golf, and open to the public.

“When I first saw the property, I wondered how the guys at Pebble Beach felt when they first walked the site.”

Kingsbarns Golf Links is one of the world’s oldest golf clubs around, having started in 1815. But after World War II, its nine-hole course fell into disrepair and little is recognizable today outside remnants of some bunkers.

Giving the club new life is American Mark Parsinen, developer of Granite Bay (Calif.) Golf Club. Walter Woods, retired after many years as head greenkeeper of the Old Course, is a consultant.

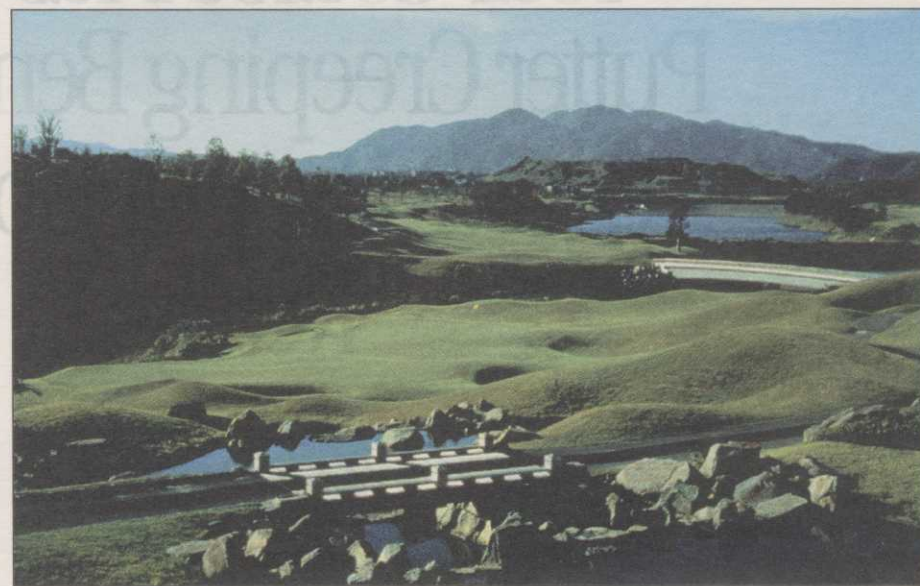
Sitting on 180 acres that run in a linear shape along the ocean, the new track will boast ocean views from every hole with five greens on the water, either at sea level or atop 20-foot cliffs.

It will measure 5,610 to 7,175 yards when it opens. That may be in 1999, but the grand opening is planned for July 2000 to coincide with the British Open at St. Andrews.

Phillips described the Kingsbarns Golf Links design as “modern links as opposed to the older links courses, which were designed primarily for match play.

“We’re trying to maintain the elements of links-style golf but think more about

Continued on page 36



Graham Marsh, right, is coming to America, but staying active abroad in such places as Japan, where he designed Mission Valley Golf Club, above, in Fukuoka.

Q & A

Marsh jumps into No. American marketplace

Graham Marsh has been a steady presence in Asia-Pacific market for the past 10 years, concentrating on resort, hotel and other upmarket projects from the Philippines to Australia. Now, through a recently inked alliance with Kansas City-based HNTB, the 1997 U.S. Senior Open winner has set his sites on golf course design in the US and South America.

Golf Course News: Was there one factor in particular that led you to the North and South American markets? A series of factors?

Graham Marsh: I think it was more of a series of factors. We had spent over 10 years working in Southeast Asia, Australia and the Pacific Rim, and we had to cut our teeth on some pretty difficult projects down there.

We competed against many of the main architects in that region. When I say main architects I mean architects from the United States and Europe and the ones that come out of Japan. Consequently, I had decided to play the Senior Tour and was spending more time in the United States. I spent a year or so over here just looking at the markets. With the buoyancy of the market over here in the U.S., certainly I saw new opportunities.

GCN: Do you have a grand plan for

your expansion?

GM: I’ve always wanted to expand the company step by step and that’s the way we’ve gone about it, in a logical progression, so that we’re growing the core of the business, cutting our teeth and doing it one step at a time while keeping the same team together. That’s important because we are very much a hands-on operation, with a core of design and construction people.

GCN: How many people are involved in that core group?

GM: In my office in Australia, I have 14 people full-time.

GCN: Do you see the U.S. as a different challenge than the markets in Australia and the Pacific Rim?

GM: I think the challenge varies from site to site. If you’re talking about the business challenges, then I think cer-

Continued on page 38



Jack Kidwell



Mike Hurdzan

HALL INDUCTS KIDWELL, HURDZAN

SANDUSKY, Ohio — Golf course architects Jack Kidwell and Dr. Michael Hurdzan of Columbus were among those inducted into the Ohio Golf Hall of Fame in ceremonies at Plumb Brook Country Club here Aug. 18. The semi-retired Kidwell is a fellow and former president of the American Society of Golf Course Architects, a certified golf course superintendent and Class A PGA professional. Hurdzan, whom he tutored, is a partner in Hurdzan Fry Golf Course Design and holds master’s and PhD degrees in plant pathology. Both have been active speakers at various golf course superintendents conferences.

SANFORD’S SAWMILL OPENS IN MICH.

SAGINAW, Mich. — John Sanford Jr. has unveiled his latest creation, Sawmill Golf Club, here. The course was built in the sawmill capitol of the world, and an old grist mill remains on the property. Although the land around Saginaw is primarily flat farmland, Sanford moved enough dirt to create elevation changes. Combined with a routing through marshland and natural woods, this gives the Sawmill club a much different feeling than that of the terrain surrounding it.

DESIGN 3 HIRES NAUBORIS

EAST LANSING, Mich. — Design 3, a firm specializing in golf course design, landscape architecture and site planning, has appointed Howard Nauboris as a golf course designer. Nauboris holds a bachelor’s degree in landscape architecture from the University of Guelph in Ontario, and has in-depth experience in golf course construction.

Sodding makes perfect at Lake Las Vegas' project

HENDERSON, Nev. — Lake Las Vegas Resort officials report construction is moving swiftly on the first resort golf course, The Links at MonteLago, located at Lake Las Vegas Resort's MonteLago development. The course is being sodded and is expected to open for public play in early 1998.

This signature 18-hole course is the second Jack Nicklaus-designed course for Lake Las Vegas Resort, the \$4-billion resi-

dential and resort destination under development east of Las Vegas, and is the first of three courses planned for the MonteLago resort community. The entire proposed master plan for MonteLago calls for exclusive resort hotels/casinos, European-style gaming, championship golf courses, residential villas, a world-class spa facility, a commercial resort village and restaurants.

In designing The Links at MonteLago,

Nicklaus drew upon the area's unique topography, creating a green oasis winding through the desert hillside and down to the water's edge of Lake Las Vegas, Nevada's largest privately owned lake.

The 7,184-yard, par-72 course will offer five golf holes directly on 1-1/2 miles of shoreline. In addition, The Links at MonteLago will challenge the golfer with a variety of carries over and alongside canyons.

Loch Ledge gets facelift

YORKTOWN HEIGHTS, N.Y. — The Sanctuary Country Club here has a new name and will soon have a new look. Formerly known as Loch Ledge, the facility is undergoing extensive renovations by Whole In One Design Group of Easton, Md., and Durham, N.C.

The renovation will result in a completely new lower nine. The upper nine will remain intact, with renovation work slated once the front nine is complete. Sanctuary Country Club owner Tom Sung purchased the club a few years ago and plans to develop an inn, botanical gardens and a tennis facility on the property as well.

Many original holes were routed on land not suitable for the resulting product and much of the property was never used. "We are eliminating many blind situations and revealing impressive views at the same time," said Whole In One Design Group architect Rich Mandell. "One goal was to take advantage of the natural topography which was largely ignored in the original design."

The lower nine sits on only 45 acres and Whole In One will incorporate retaining walls of native stone and a double green in order to combat the lack of property.

"One of the problems we are dealing with is a deficiency of space. The double green and the retaining walls allow us to overcome these constraints and still preserve the natural hydrology," said Whole In One President Bob Rauch.

The new nine will be stretched 400 yards, making the course 6,200 yards long.

The renovations will be done in phases, with completion by fall of 1998.

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The Green Seal marks Putter as a world premium turfgrass variety.

Phillips in Scotland

Continued from page 35 stroke play," he said.

Phillips likened the design to remodeling an old home and having "functional obsolescence."

"We still have short walks between a green and the next tee, because it's part of the walking game," he said. "In the old days, tees were on the greens. We will have a little more space there. There will be fewer hidden bunkers. The greens will be 8,000 to 10,000 square feet, which is large but not on the scale of the Old Course, where the average is 20,000 square feet."

And fescues will be predominant through the course, he said.

Another modernism, Phillips said, will be a full practice facility, with chipping area and driving range, to host golf schools.

Norman, bank to build resorts

SYDNEY, Australia — Greg Norman took a further step into big business by joining forces with an Australian investment bank to build golf resorts worldwide, the bank said.

The Australian golfer has entered a joint venture with Macquarie Bank to raise investment funds to back the project, according to a bank statement.

The company, Turnberry Resort Developments, is considering eight sites in Australia for projects worth more than A\$500 million (US\$365 million). In addition to designing and building golf courses, the joint venture will also involve property and leisure development.

Quoted in the bank statement, Norman said the new company represented a logical extension to his existing business empire, which focuses on leisure wear and golf course design.

Couples, Bates busy on Superfund site

MIDVALE, Utah — PGA Tour star Fred Couples and architect Gene Bates recently unveiled plans for The Moorfoot Hills Golf Club, an \$80 million project that will include a 250-room luxury hotel and clubhouse on the Sharon Steel Superfund site.

With 14 million cubic yards of toxic tailings lurking below the surface, Couples and Bates will have to come up with a low-impact design. The project is headed by a German-based hospitality company known as Ganter USA and will need several levels of approval, from the Environmental Protection Agency and Utah's Department of Environmental Quality to Salt Lake County and Midvale City officials.



The Craig Schreiner-designed Tregaron Golf Club adds spice to public golf in Nebraska.

Tregaron added to Omaha daily-fee offerings

BELLEVUE, Neb. — Sitting on a site that traverses rolling terrain and flat river bottoms, Tregaron Golf Club has been added to the mix of public golf courses in the Omaha area.

Designed by Craig Schreiner of Kansas City, Tregaron is an 18-hole, par-71 layout that is the focal point of a residential community by the same name. It opened for preview play in July.

Schreiner relied on the site's undulating topography and natural features characteristic of eastern Nebraska to dictate the design. Golf holes were routed to take advantage of significant elevation changes, river bottom land and a tributary of the Big Papillion Creek. From east to west, the property falls more than 150 feet and is bisected by a heavily traveled road.

"The site was rolling farmland void of any trees except along the tributary, which gave us the opportunity to design a truly unique golf course in this market," said Schreiner.

The course has two distinct identities. The front nine and holes 10, 11, 17 and 18 blend with the site's rolling terrain and sparse vegetation, with elevation changes of 40 to 60 feet.

The remaining holes transformed river bottom land into golf holes that are anything but flat. Four lakes bring water into play on eight holes.

Tregaron is managed by Evergreen Alliance Golf Ltd., which also manages five other courses in Omaha metropolitan area. The course was built by Duininck Brothers, Inc. of Prinsburg, Minn.

Multi-course complex planned

DALLAS — The city of The Colony has reached an agreement in principle with Matthews Southwest, an area residential and commercial developer, and American Golf Corp. to construct a multiple-course golf complex on Wynnwood Peninsula, north of the city.

The first phase of construction — a premium daily-fee course and three-hole practice course — is scheduled to begin October for a September 1998 opening. When completed, the complex will feature 54 holes of golf.

"We believe this will be the most unique setting for public golf in the area, with lake views and lakefront golf holes dominating the initial 18 holes," said Ken James, senior vice president for American Golf Corp., which will manage the facility.

Presidents' playground being renovated

CLAREMONT, N.H. — Claremont Country Club, once played by Presidents Woodrow Wilson and Calvin Coolidge, will begin a series of renovations after September.

Wilson, who summered in nearby Cornish, joined Claremont CC in the summer of 1914, while Coolidge used to play the course while living in Plymouth, Vt. They would recognize the track today since it has undergone little change since being built in 1912.

But that is about to change, according to superintendent Dan Whitcomb. He will oversee construction of a new pond this fall, a prelude to additional irrigation on three fairways and enlargement and reconstruction of the par-3 8th green and surrounding sand bunkers next year.

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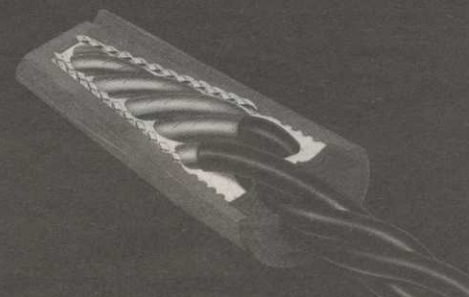
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CIRCLE #141

Q&A: Graham Marsh

Continued from page 35

tainly this market over here has been built on real-estate development and some private and daily-fee golf courses. Whereas the market in Southeast Asia is still very much oriented towards membership styles.

So there's a huge difference in terms of those two aspects. Fur-

thermore, the packages that are put together for the markets in Southeast Asia are considerably expensive because the quality of the land that we are dealt means that there is a far greater engineering component. And that means that the budgets are considerably higher.

In the United States there are

still some wonderful tracks of land on the periphery of many cities that are expanding. Golf course design, in many instances, is much more back to nature, using the natural topography of the land. That's more part of the design philosophy in the United States and it's wonderful to have that opportunity again. You don't always get that opportunity in dealing with large

construction sites

GCN: Conservation and environmental issues may be pushed aside a bit more in Southeast Asia?

GM: Well, I think that they are, in fact, considered. Water and drainage are absolutely critical. Reforestation is terribly important in Southeast Asia. So those issues are dealt with.

But it's an enormous opportu-

nity to come back to the United States and build a course for a budget of \$4.5 million or \$5 million. That's something that we haven't seen for a long time. And it certainly is a challenge to be getting back to working with those natural contours of the land.

GCN: In the past you've positioned yourself as a designer for the upscale market. Was that by the design?

GM: I think that we positioned ourselves for the value that we offer as a company and the expertise that we offer. We're completely comprehensive in the sense that we can offer turnkey operation on any project which means that we have the engineering and landscape skills, all the necessary construction skills, all the necessary components in-house.

We've had to do that purely by design because many times in Southeast Asia we've gone into projects on the assumption that the teams that were put together were going to have all those skills. In fact, most of the time, even though we've had construction companies working for us over there, they have had precious little experience on golf courses.

GCN: Will that team stay intact as you focus on the U.S.?

GM: Because of permits and all the necessary things, it's much harder to bring that total entity to the United States. Consequently, we had to form an association with somebody over here who we knew had that same capacity as planners and designers, and somebody that had comprehensive knowledge of the rules and regulations of every state within the United States.

Of course, the association that we have formed with HNTB provides us with that same base that we are able to provide from our Australian office.

GCN: Any specific reason for choosing HNTB?

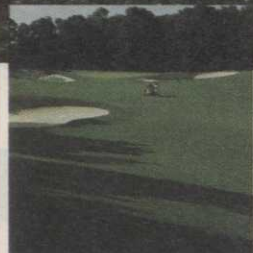
GM: They have comprehensive skills through their engineering, planning and design work that they have been involved with today and consequently it was just a perfect match. Now as far as construction is concerned, in the United States you have the world's best golf course construction companies. So if the planning and design component is in place, then the role of construction will be much more adequately filled than it can in Southeast Asia.

GCN: How will the HTNB relationship work?

GM: HTNB will help us carry forward our design philosophies to the United States that have been carried forth in other parts of the world — and expanding on those.

Continued on next page

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CIRCLE #121

Russians rush to golf, sack sanitarium for sport

By ERIC SCHWARTZ

SESTROYESTSK, Russia — It's as if the same voice that spoke to Kevin Costner in a "Field of Dreams," has also spoken to Sergei Spitsyn: "If you build it, they will come."

The field, in this case, is not an Iowa cornfield. It's the 90 hectares surrounding an aging Soviet sanitarium called The Dunes in this town, about 40 kilometers north of St. Petersburg. And rather than a baseball diamond, Spitsyn is building a six-hole, par-3 golf course.

Of course, Spitsyn attributes his decision to develop the course more to pragmatism than to any mystical belief. The former chief doctor at the sanitarium, Spitsyn said financial problems at the facility led management to the idea of creating a golf course, although none of them had much experience with the game.

But with more foreign businesses coming into the country and increased exposure to Western diversions, word about golf was coming to the Russians. Two courses were established in Moscow, but there was none in St. Petersburg. For

golfers in Northwest Russia, the closest options were in Finland or Estonia.

In 1996, Spitsyn and his colleagues developed a business plan, with emphasis on increasing the public's exposure to golf. First came a miniature course opened in November 1995. The sanitarium then built a driving range 180 meters long and 90 meters wide. A 35-meter extension of the range is already being seeded. The Dunes also has a putting green adjacent to the driving range.

The first six golf holes opened in mid-August, said Baranchukov, and there are plans for more. They range from 60 to 100 meters.

Expansion of the course "really depends on the investors," Baranchukov said.

The next step, he said, is to construct a clubhouse, with a restaurant, pro shop and locker room.

The Dunes has funded its development completely from within, said Spitsyn. But now the club is looking for outside inves-

tors. The sanitarium, which served top party members of the Leningrad area, is now leased from the state by its employees, who make the rent money by charging for the use of its facilities.

Spitsyn noted that it is these other facilities that will help maintain a solid source of funding for The Dunes during the off-golf season, which he said will be from the end of October to the beginning of May. The sanitarium also has a swimming pool, ski trails, snowmobiles, a shooting range, billiard tables, weight rooms, a beach and tennis court — all facilities that people will pay money to use.

Q&A: Marsh

Continued from previous page

GCN: What does winning the U.S. Senior Open do for your design business.

GM: I believe that, rightly or wrongly, that there are developers that choose designers based on their name value and not always their skills. Certainly winning this year's U.S. Senior Open has given me a much higher profile in the country. It's given me a notch up for a profile and, to be honest, that's very important when it comes to project development.

The other thing that's important, is that all of those tournaments are televised throughout the Pacific Basin. The developers are watching these tournaments. So it will give me a boost in Southeast Asia as well.

GCN: You've been in the design business for 10 years. What has changed?

GM: It's seems to go in cycles. In one stage, when I was getting into the business, there seemed to be a race to see who could design the hardest golf course. There's still a market for that, but I've seen a shift away from that back to more sound strategies, good basic design logic, the more playable golf course — and that works. You only have to talk to players to find that the solid principles still stand out.

GCN: Where do you see yourself fitting in?

GM: I'd have to say traditional. Traditional in terms in of design philosophies. We're known in Southeast Asia as resort designers. We've had to deal in a market there that's totally different than in the United States — not only in the construction issues but also in the market that you're dealing with.

The game of golf is not spread across in the population base like it is in the U.S., or Australia, or Europe. People don't have access. You get middle-aged people, more affluent people who join these clubs. So, if you give them a golf course that's too difficult for them then it's going to be a problem.

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Golf on the rooftop comes to NYC

NEW YORK CITY — The Port Authority of New York and New Jersey and MetroGolf Inc., a Denver-based company, have agreed to enter into a 20-year lease under which MetroGolf expects to build and operate a golf center on top of the Port Authority Bus Terminal, located in the heart of midtown Manhattan at 42nd St. and 8th Ave.

Approved by the Port Authority Board of Commissioners on July

31, the golf center is believed to be the first of its kind in the world and is expected to open in mid-1998. The anticipated cost of the project is \$6 million.

MetroGolf New York will consist of an approximately three-acre rooftop facility overlooking Times Square and will feature a three-level, 54-tee station driv-

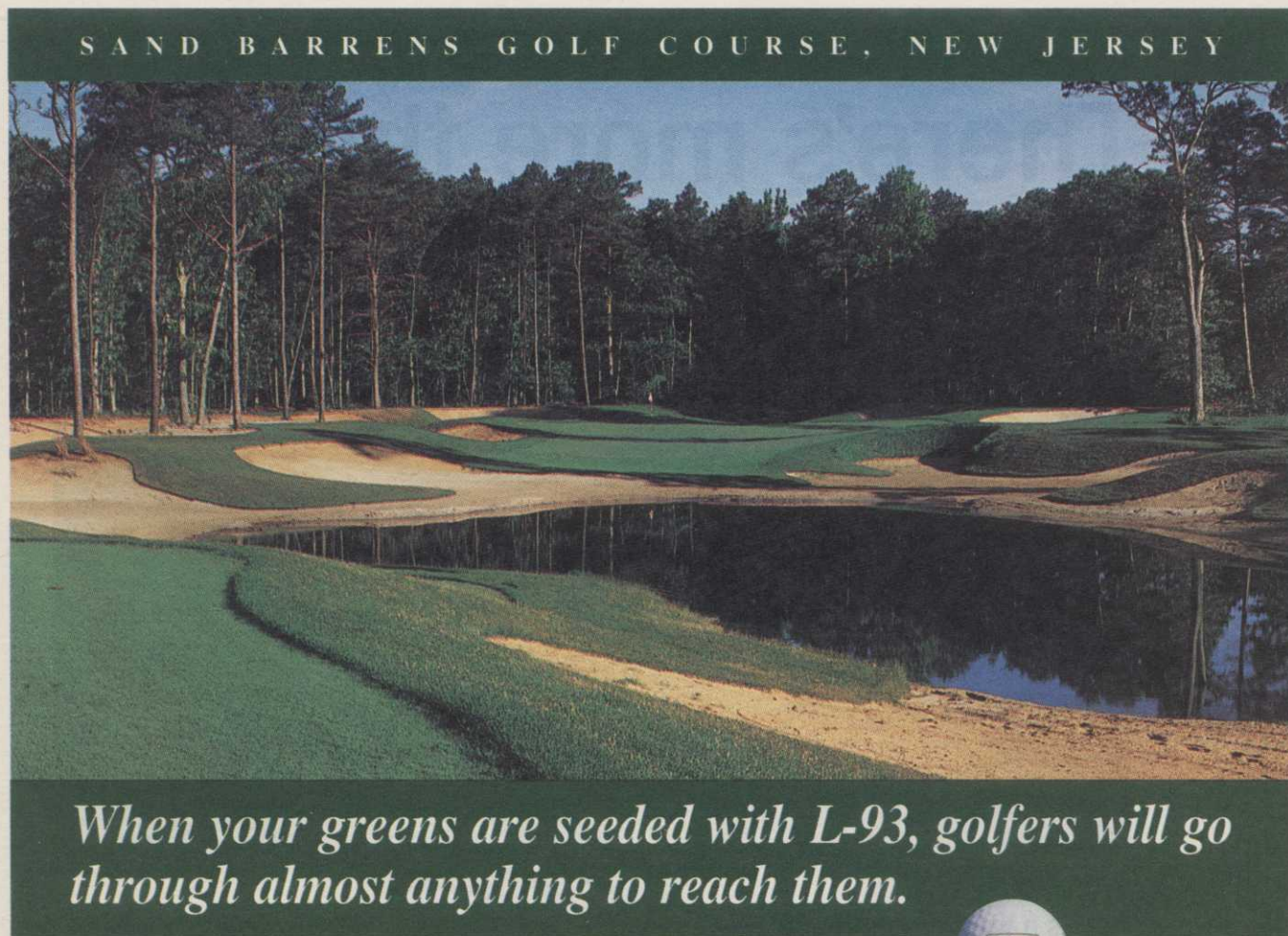
ing range encased by a netting system. Covered and heated, the range will extend over 200 yards. Golfers will be hitting balls into the panoramic backdrop of Manhattan and the Hudson River. The clubhouse will be built on the sixth and seventh floors. The space, now used for parking, is underused, compared to lower levels.

"We are delighted to establish a new golfing alternative in the heart of New York City," said Charles D. Tourtellotte, MetroGolf Inc.'s president.

Tourtellotte said: "This project represents a major milestone in the company's aggressive growth plans. We look forward to a long and fruitful relation-

ship with the Port Authority of New York and New Jersey."

Port Authority Chairman Lewis M. Eisenberg said: "By bringing golf to the Port Authority Bus Terminal, we are not only improving the services provided to our customers, but also adding even more fun and vitality to an area known around the world for excitement. The golf range, like the bus terminal's Bowling Center, will be a boon for everyone..."



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"L-93's grow-in performance surpassed all of my expectations. Its quickness of establishment and upright growth habit are quite impressive."

Steve Malikowski,
Golf Course Superintendent
The Sand Barrens
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Pro/Cup	5.7
Penncross	5.4

Turfgrass Quality Ratings: 9 = Ideal Turf
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Page 8



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Olde Scotland brings links play to Massachusetts

BRIDGEWATER, Mass. — While many American courses claim the "links" monicker, the Brian-Silva designed Olde Scotland Links, which opened here in August, is the exception. Basically flat, treeless and wind-dependent — with golden fescue grasses contrasting rough with fairway — Olde Scotland couldn't help but be a links course. "And here's the kicker," explained Silva. "The course is located in a section of Bridgewater that's been called 'Olde Scotland' for more than 100 years. You can't fight destiny like that. It had to be a links course."

With that tradition in mind, Silva routed 18 holes through existing valleys and depressions, avoiding the need to significantly "mound up" the edges of each fairway. The putting surfaces are open in front, so players can bounce the ball onto 17 of the 18 greens.

Silva has also created numerous close-cut, greenside chipping areas that invite invention.

It's been a busy 1997 for Silva, a partner with the design firm of Cornish, Silva and Mungam (CSM), based in Uxbridge. The Olde Scotland opening followed hard on CSM's major renovations at Olympia Fields, site of June's USGA Senior Open. In May, CSM added nine holes to the Donald Ross-designed Rolling Rock Club in Ligonier, Pa., for years considered the best nine-hole course in America. Silva has also been entrusted with the restoration at Ross' classic Florida layout, Seminole Golf Club in North Palm Beach.

The Olde Scotland Links do not play "nine out and nine back," and the Atlantic shoreline sits some 30 miles to the east. Yet there are water views: 64 acres on the 200-acre site here were designated as wetlands.

Despite this high concentration of protected areas, the final course design requires only four compulsory carries — two of them directly in front of tees and thus easily avoided.

"Stroke play lives at Olde Scotland Links," said Silva. "Donald Ross said golf should be a pleasure and not a penance. I couldn't agree more."

BRIEFS



PRESCOTT LAKES PICKS WESTERN GOLF

SCOTTSDALE, Ariz. — Bill Brownlee and Jeff Davis, principals of The M3 Companies, have named Western Golf Properties, Inc. as the management group for The Country Club at Prescott Lakes in Prescott. The community will include the country club, which features an 18-hole, Hale Irwin-designed championship course and traditional clubhouse with a separate fitness, tennis, and swim complex.

ENVIRONMENTAL CARE PROMOTES PAIR

CALABASAS, Calif. — Environmental Care Inc. recently promoted David Hanson to director of West Coast operations for ECI's golf maintenance division and Barry Troutman to manager of technical support for East Coast operations. Hanson, who has 28 years experience in the green industry, will oversee technical operations for courses throughout California, Arizona and Texas. Troutman, a past president of the Georgia Turfgrass Association, will manage ECI's technical programs for fertility, weed and pest control. ECI is a leading provider of landscape management, irrigation, arborist and horticultural contract services to commercial clients, including 22 golf courses nationwide.



David Hanson



Barry Troutman

GOLF TRUST REPORTS EARNINGS

CHARLESTON, S.C.— Golf Trust of America, Inc., a self-administered real estate investment trust, reported second-quarter Funds from Operations (FFO) of \$3.5 million, or 43 cents per share on revenue of \$3.9 million, compared to pro forma FFO of \$2.8 million, or 30 cents per share, on pro forma revenue of \$2.8 million for the prior year's second quarter. The increase in FFO per share of 43 percent is due primarily to the addition of two courses in Virginia that opened in summer 1996. "The Company's second-quarter results demonstrate that there is great opportunity for growth in the upscale golf course industry, which is the focus of our business plan," said Brad Blair, president and chief executive officer.

Family Golf Centers top half-century mark in course properties

MELVILLE, N.Y.— Family Golf Centers, Inc. has acquired Leisure Complexes, Inc. for approximately \$46 million in cash, stock and assumption of existing indebtedness. In the transaction, Family Golf Centers acquired the Ponds Golf Center, and Sports Plus, a family entertainment complex, both located in Lake Grove, Long Island, N.Y., as well as Leisure Complexes' bowling division.

Dominic Chang, president and chief executive officer of Family Golf Centers, said: "While we continue to be the leader in the consolidation of stand-alone golf centers, we have reviewed numerous opportunities to enhance our golf centers by including additional family-oriented recreational activities. We are very excited about this acquisition, because Leisure Complexes' indoor family recreation concept has outstanding growth potential, in major demographic areas. Our businesses are complementary, and will enable us to counter the seasonality of the golf business."

Bill Reitzig, president of Leisure Complexes, Inc., said: "We are equally enthusiastic about joining forces with Family Golf Centers. We have been searching for a business partner to help us achieve our ambitious growth plans, and decided that Family Golf Centers' impressive growth, experience in consolidating the golf driving range industry and financial strength made them the ideal partner for us."

Mr. Reitzig will remain with Family Golf Centers as president of its Lake Grove subsidiary, created to acquire Leisure Complexes, Inc.

The Ponds at Lake Grove Golf Center, located in Lake Grove, N.Y., consists of an 18-hole executive course, lighted driving range and pro shop. Leisure Complexes' family entertainment complex, a new 170,000 square-foot state-of-the-art

Continued on page 42

Canadian manager, developer ink deal

KING CITY, Ontario, Canada — ClubLink Corp. has arranged a formal business relationship with Bruce Evans, owner of one of Canada's leading course and recreational amenity construction companies and the five-star Grandview Inn in Huntsville, Ontario.

The arrangement includes the expansion of ClubLink's golf facilities in Ontario's Muskoka recreational area on 550 acres of prime recreational real-estate adjacent to Grandview Inn. The agreement also provides for supervisory management by ClubLink of Grandview's existing Tom McBroom-designed, 9-hole golf course, the grant to ClubLink of a two-year option to acquire Grandview Inn at a fixed price and favorable terms and

Continued on page 44



ANOTHER TROPHY PROPERTY FOR KSL RECREATION

LA QUINTA, Calif. — KSL Recreation Corp. has purchased Grand Traverse Resort in Acme, Mich., from the City of Detroit General Retirement System for an undisclosed price. Grand Traverse is an award-winning vacation destination, conference resort and residential community located 6 miles northeast of Traverse City along the shores of Lake Michigan's East Grand Traverse Bay. The resort includes two 18-hole courses — The Bear (above) designed by Jack Nicklaus and Spruce Run designed by Bill Newcomb. A third course designed by Gary Player is under construction. La Quinta-based KSL Recreation, along with affiliate KSL Fairways, owns and operates 40 golf facilities throughout the United States including PGA West and La Quinta Resort and Club in La Quinta and Doral Golf Resort and Spa in Miami. Irving Kass, formerly of Doral, has been named general manager of Grand Traverse.

PERSONNEL CORNER

Patience a virtue when dealing with people

By VINCE ALFONSO

Solomon I'm not. You remember Solomon? You know, the King of Israel who was the wisest man who ever lived, except for Jesus, of course. Solomon, the King who held up the baby in question and said to the two women claiming to be his mother, "Since both of you claim to be equally mother of this child, I will cut him in half and present half to each of you." The woman who begged King Solomon not to do such a thing was awarded the whole child. She was obviously the real mother.

Now, as wise as King Solomon was, I doubt very much if he had rehearsed or had been trained in the specific area of how to deal with two mothers each claiming to be a child's mother and

asking him to decide who's who and what's what. I think he just did what he felt he should do, and since there was no such thing as DNA testing back then, he came up with a dramatic, perhaps, but equally successful approach to solving the problem at hand.

Don't you wish you were as wise as Solomon? Especially when you are faced with sudden, unexpected decisions you don't feel trained or prepared to make. It happened to me late one

Continued on page 43

Vince Alfonso Jr. is a 40-year golf industry veteran, president of Alfonso Creative Enterprises Inc., and owner of Kimberling Golf Course near Branson, Mo. He can be reached at 417-639-4370.

AGC explains East Coast headquarters move

By PETER BLAIS and wire reports

VIRGINIA BEACH, Va.— In a strategic move to operate in closer proximity to its East Coast golf properties, American Golf Corp. (AGC) recently relocated its Northeast Region headquarters from Toledo, Ohio, to Virginia Beach, Va.

The new American Golf Northeast Regional offices are located in Virginia Beach on First Colonial Road in the Great Neck area.

Since opening the offices in Toledo seven years ago, the Northeast Region has taken on greater territory and more responsibility. AGC now manages golf courses

in 16 different cities on the East Coast. The Northeast is one of American Golf's six regional operations spread throughout the country.

"Because of the tremendous growth in the number of properties operated by American Golf through acquisitions over the past few years, Toledo is no longer a central location," stated AGC Regional Vice President Rich Hohman.

"Norfolk has a bigger and better airport which will help greatly with our transportation needs. Our East Coast properties are now more accessible, allowing us to be at the prop-

Continued on page 44



Rich Hohman

Shadow Creek accepts tee times

LAS VEGAS — One of the most exclusive courses in the world, Mirage Resorts' Shadow Creek, is about to make its first public appearance. Mirage Resorts has made a limited number of tee times available to play Shadow Creek.

The course, which has been rated among the country's best, has been reserved for an exclusive list of the Las Vegas resort's employees, guests and colleagues. Since mid-July, however, the general public have been able to purchase a limited number of tee times.

For \$1,000 an individual guest receives a tee time to play the highly-acclaimed course and a suite at any one of Mirage Resort's

Las Vegas hotels including the Golden Nugget, Treasure Island and The Mirage, based on availability. A maximum of two players may participate per suite with additional rounds available for purchase for \$500. Included in this price is transportation to and from Shadow Creek and a caddie to escort guests around the course.

Since opening in 1989, Shadow Creek has been named the top new private course by Golf Digest magazine in 1994 (its first year of eligibility) and was subsequently named one of the top 10 golf courses in America in the magazine's annual ratings. Shadow Creek was designed by architect Tom Fazio in collaboration with Mirage Resorts Chairman Steve Wynn.

Family Golf

Continued from page 41
facility adjacent to The Ponds Golf Center, includes an ice hockey rink, bowling lanes, high-tech batting cage, a variety of indoor amusements, restaurants and a conference center. Leisure Complexes' bowling center division has seven locations throughout Long Island.

In addition to Sports Plus and Leisure Complexes' bowling center division, this transaction brings the total number of golf facilities owned, operated or under construction by Family Golf Centers to 52 in 18 states.

Family Golf also recently acquired three golf facilities and was awarded contracts to build three golf centers.

The newly acquired facilities are Supersports Family Fun Park in Carver, Mass.; Palm Royale Golf Course in Palm Desert, Calif.; and Southampton Golf Center in Philadelphia, Pa.

Construction contracts were awarded by Cerritos College for a golf center in Los Angeles; the Metropolitan Transportation Authority New York City, for a golf center on Gunhill Road in the Bronx; and the New York City Department of Parks and Recreation, for a practice center in Dreier-Offerman Park in Brooklyn.

The previously announced acquisitions now completed are the San Bruno Golf Center in San Bruno, Calif.; Rio Salado Golf Course in Tempe, Ariz.; and Divot City Golf Center in Milpitas, Calif.

Each of the sites offer features common to all Family Golf centers, including driving ranges, pro shops and short-game practice areas.

The Palm Desert and Tempe properties also include nine-hole executive golf courses, and the Family Fun Park in Carver, Mass., has additional leisure activities such as a go-cart track, bumper boats, and batting cages.

Family Golf will manage the centers it constructs in the Bronx and Brooklyn. The Brooklyn center will be the third location the company has been asked to operate for the New York City Parks Department, which has licensed centers to Family Golf on Randalls Island and Douglaston, Queens.

Added Chang: "The expansion is representative of our strategy to build, acquire and operate golf-related facilities that also provide family entertainment. The three new facilities to be constructed in New York City and Los Angeles are in densely populated middle income urban locations which have proven to be very profitable for Family Golf."

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Alfonso

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afternoon as I sat at my desk doing paperwork. One of my employees bolted into my office to announce that there was a fight in the basement between two of my golf car boys. A fight, mind you, a fist fight between two employees who had never displayed aggressive behavior period, much less a history of fighting.

Well, out the door and down the ramp we went, running all the way. As we entered the basement, to my shock and dismay, there they were, slugging it out. I immediately demanded they stop fighting and stepped in to break them up (In retrospect, that could have been a bad move). To my amazement, they stopped fighting and just stood there bloody, with shirts torn.

I marched them upstairs to my office to get to the bottom of the problem. Once seated across from each other, the questioning began. I had no idea where I was going with all this. I just seemed to be working on instinct.

After a few minutes, as the two sides of the story began to unravel, it became apparent that these two guys had been having trouble for some time and some small incident in the basement pushed one of the boys over the edge. OK, so what now? Do I fire them both for this behavior? Do I fire the one I think is the guilty party? Or do I do something else?

After a considerable amount of deliberating, I began to, well, lecture them on why fighting was not exactly the best way to settle disputes, especially not at the workplace. Then I explained that I really wasn't sure if I had the right to fire them for fighting on the job, but I decided I wouldn't do it if I could. No. I had decided that the one thing I could count on was that they would never be involved in such an activity again. I told them I felt they be an example to the rest of the staff, as to how people can work out their problems without beating each other's brains out.

You know, those two young men were my best golf car crew people before the incident and after they made peace and began to work in harmony, they got even better.

The truth is, my instincts said and my impulse was to fire them both. How embarrassing for my golf course to have two employees fighting. Good grief. But I am glad I calmed down and talked it out. I'll always remember the moment the two bloody, ragged boys shook hands in my office that day and started on the road to becoming young men.

As I said at the beginning, Solomon I'm not. But the times

I made the best decisions have been the times in which I have been patient and slow to react.

Please, I implore you, try not to react too quickly to circumstances. Take some time and get enough information to make a good decision. I've acted differently than this at times in my life and I have lived to regret it. I think I should reread the book of Solomon once a month. It's gotta' help. What do you think?

Starwood purchases three Massachusetts golf properties

PHOENIX — Starwood Lodging Trust, a leading hotel real-estate investment trust, and Starwood Lodging Corp., a hotel management and operating company, have announced an agreement to acquire a portfolio of 15 full-service hotels, including four golf courses, from the Flatley Co./Tara Hotels for \$470 million.

The golf courses are located on three Massachusetts properties and include:

- Tara's Ferncroft Conference Resort in Danvers. The 367-room resort is situated on nearly 325 acres of land and includes two golf courses.
- Tara Hyannis Hotel & Resort in Hyannis. The 224-room Hyannis Hotel & Resort is located in the business district and boasts an 18-hole golf course.
- Colonial Hilton & Resort in Lynnfield. The 280-room hotel has an 18-hole course.



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Standard's Drag Brush with extensions — the easier way to healthier greens.

Many course superintendents have discovered how valuable the Standard Drag Brush is for keeping greens healthy and looking good. For light topdressing applications, it gently works and vibrates the material into the green without tearing the surface like drags sometimes can. Also, pulling the brush over the green before mowing helps make the runners stand up for a clean even cut and helps to control thatch. The drag brush is also excellent for maintaining ball diamonds or clay tennis courts.

For more information or the names of your nearby Standard Golf distributors, call or write: Standard Golf Company, P.O. Box 68, Cedar Falls, IA 50613, U.S.A., 319-266-2638, FAX 319-266-9627.



Extensions help get the job done faster! Extensions can be added to any new or existing Standard Drag Brush and a single set will double your work width. Extensions are hinged to float over uneven surfaces or to flip up if not needed.

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AGC/NGP

Continued from page 41
erties more frequently.”

Three AGC courses are close to the new Northeast headquarters. In the Hampton Roads area, AGC operates Honey Bee Golf Club in Virginia Beach and Chesapeake Golf Club in Chesapeake for National Golf Properties, and in Norfolk, Ocean View Golf Course for the City of Norfolk.

The relocation involves the move of eight American Golf executives and their families to Tidewater.

In addition to Hohman's family, the families of Dean Wochaski, Northeast regional director of maintenance; Mark Tansey, regional sales and marketing director; Paul Ballam, Northeast regional project manager; and Kelly Raynor, administrative assistant are all relocating from Toledo.

Ken Guerra, sales director for

all AGC public courses east of the Rockies, is relocating from San Francisco. Additionally, within the next few months, a regional food and beverage director and a director of revenue and service integration will be transferred to the new Virginia Beach office.

“Our move to Virginia and the mid-Atlantic area puts us close to exceptional golf courses and terrific golf markets,” Hohman said. “This region has several commu-

nities committed to golf's growth and we are committed to partnering in that growth. We are excited about the growth opportunities on the East Coast, especially in the mid-Atlantic area.”

“The revenue and service integration manager will deal with everything from pace of play to how we answer phones, those connections between driving revenues and related service issues. We may also see an acquisition spe-

cialist working out of this office.”

In related news, National Golf Properties Inc. reported funds from operations (FFO) of \$12.4 million in the quarter ended June 30, a 20-percent increase from \$10.3 million in the quarter ended June 30, 1996.

On a per share basis, NGP reported a 9-percent increase in FFO to 59 cents per share in the quarter ended June 30, from 54 cents per share a year earlier. The difference in growth rates between aggregate FFO and FFO per share is primarily attributable to the issuance of 1,577,820 shares of NGP common stock during the third quarter of 1996 as partial consideration for the purchase of 20 golf courses.

Rent revenues increased 34 percent to \$18.5 million in the quarter ended June 30, from \$13.8 million a year earlier. The increase in rent revenues was due to same store rent growth of 5.1 percent and rent received from 35 courses acquired since June 30, 1996.

NGP declared a distribution to stockholders of 42 cents per share for the quarter ended June 30, 1997, and reduced its payout ratio to 71 percent of FFO from approximately 76 percent a year earlier.

In April, NGP obtained a five-year, unsecured, \$100 million revolving credit facility from a group of four commercial banks.

Borrowings under the facility carry a maximum floating interest rate of LIBOR plus 1.125 percent. The interest rate spread will be reduced upon NGP's receipt of specified credit ratings.

During the second quarter, NGP acquired Baymeadows Golf Course, a daily-fee facility in Jacksonville, Fla., and The Golf Club at Bradshaw Farm, a daily-fee course in Atlanta, for \$11.1 million.

So THERE YOU ARE,

2 under par,
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AND THIS
tiny voice in your head
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NX-PRO®

ClubLink

Continued from page 41

pricing for ClubLink's ongoing course and infrastructure construction by Bruce S. Evans Limited and Fowler Construction Company Limited.

Evans will continue to be closely involved with the operation of Grandview Inn. In addition, Grandview will assist in the management and operation of ClubLink's Resort and Conference Centre at The Lake Joseph Club.

ClubLink intends to develop an 18-hole course on the 550-acre property with future potential of additional golf and related recreational facilities, resort villas and residences. Grandview Inn has further agreed to purchase a significant portion of the new course's shoulder season and non-peak time capacity to provide additional amenities for its growing corporate conference business.

ClubLink owns nine golf clubs in southern Ontario and is developing additional courses and residential accommodations at several of its properties.

BRIEFS



LESCO BOOSTS KOSSIN, NOVAK



CLEVELAND, — Lesco Inc. has named Kenneth Kossin, Jr. to controller and Susan Novak to manager, investor communications. Kossin joined Lesco's accounting team in 1989 and has been recognized for his contributions in his various roles from manager of financial reporting to assistant controller. He will be responsible for all accounting, budgeting, planning, and tax functions at Lesco. Novak joined Lesco in August 1996 and has developed a role in investor communications to support the information needs of LESCO's current shareholders and potential investors.

TORO'S ALAMO NAMED AREA MANAGER

BLOOMINGTON, Minn. — The Toro Co. named Eladio Alamo area manager for the Caribbean, Central America and Mexico, where he will oversee sales for turf maintenance equipment and irrigation systems. Alamo brings a broad knowledge of Toro's products and distribution channel to his new position. He previously served as manager of the consumer and commercial products for Casco Sales Co. Inc., a Toro distributor in Puerto Rico. In addition, he was territory manager for Latin America and the Caribbean for B.C.S. America before joining Casco.

LASCO BRINGS TWO ON BOARD

BROWNSVILLE, Tenn. — Lasco Fluid Distribution Products has named Chuck Nichols as its new regional sales manager for the northeast. Nichols spent the last 10 years as owner of a manufacturer's representative agency serving the Ohio and Michigan markets. The company has also named Charles Herndon as its new production scheduling manager. Herndon spent the last 16 years with Emerson Hermetic Motor Division in Humboldt, Tenn., where he served as production control manager and quality assurance manager.

FINE LAWN JUMPS UP ON WEB

LAKE OSWEGO, Ore. — In response to a growing number of requests for company information, Fine Lawn Research Inc. has gone online at www.finelawn.com. The company said the site will support customers service efforts by linking its distributors nationwide.

Arizona-based ryegrass issue up in the air

By MICHAEL LEVANS

PHOENIX — A controversy that Oregon seed companies thought was put to bed has been stirred yet again.

In mid-August, a group representing Arizona wheat farmers asked the Arizona state Agriculture Department to reconsider its decision to allow ryegrass planting on golf courses this winter.

In July, the Arizona Farm Bureau Federation asked Agriculture Director Sheldon Jones to ban ryegrass seed from Oregon, the nation's largest supplier, unless it is certified to be free of the fungus believed to cause Karnal bunt.

The request was the latest attempt by Arizona farmers at lifting restrictions imposed by the federal government. According to recent reports, last year's federal quarantine on Arizona wheat cost the industry \$100 million, while Karnal bunt was found in less than 4 percent of the state's fields.



Oregon's Department of Agriculture recently met with Arizona. The consensus was to wait until findings were gathered from a bunt and smut disease symposium that took place on August 18-20 in Washington DC.

"The Arizona wheat growers want help in getting this zero tolerance of Karnal bunt removed for exporting," said Michael Robinson, president of Corvallis, Ore.-based Seed Research of Oregon Inc. "They have a lot of wheat in storage that they can't ship."

William Walsh, president of the Rio Verde Country Club in northwest Phoenix, said Arizona's economy would have been hard hit by a ryegrass ban.

"The financial impact to the state would be devastating," Walsh said. "We don't

Continued on page 50



NEW PRODUCT OF THE MONTH

LANCASTER, Pa. — Millcreek Manufacturing has introduced its Model 1050 turf core aerator. With a coring width of 102 inches, the new aerator penetrates soil up to 3 inches depending on soil conditions, and can treat nearly 225,000 sq. ft. of turf area per hour. The 1050 comes with a choice of 20 or 30 tine assemblies and is available with three-point hitch mounting, or as a tow-behind with hydraulic lifting control. The operator can add weights to the built-in weight rack to adjust the tine penetration depth suitable for specific soil conditions. For more information, contact Millcreek Manufacturing Company at 800-879-6507. If you're getting ready for fall clean up and winter prep, take a look at the extended product listings, page 31.

Fertilizer makers dig in for battle

IMC Vigoro restructures, increases distribution's role

By MICHAEL LEVANS

WINTER HAVEN, Fla. — In the midst of increasingly intense competition, IMC Vigoro's Professional Products Group, the maker of fertilizers and slow-release products, has eliminated its entire internal direct sales force and has axed its unprofitable product lines in an effort to concentrate on R&D.

"It's a move that reflects that the industry is very competitive," said Tom Pasztor, director of communications for IMC Global Inc., parent company of IMC Vigoro. "Our customers are

Continued on page 48

Tessenderlo Kerley refigures to get closer to customers

PHOENIX — Tessenderlo Kerley Inc., the maker of liquid specialty fertilizers for the golf course and agriculture industries, has reorganized its Agriculture Group in an effort to get closer to its customers worldwide.

According to Gerald Kolb, group vice president, the former bottom-up geographic sales structure of the company no longer fully addressed the needs of the company's distributors and dealers.

"There has been a tremendous amount of consolidation within the distribution channels of our industry in recent years," said Kolb. "We are keenly aware that to grow our position effectively in the future, we need to better meet the needs of our customers in the United States and abroad with a customer-centered sales and distribution network"

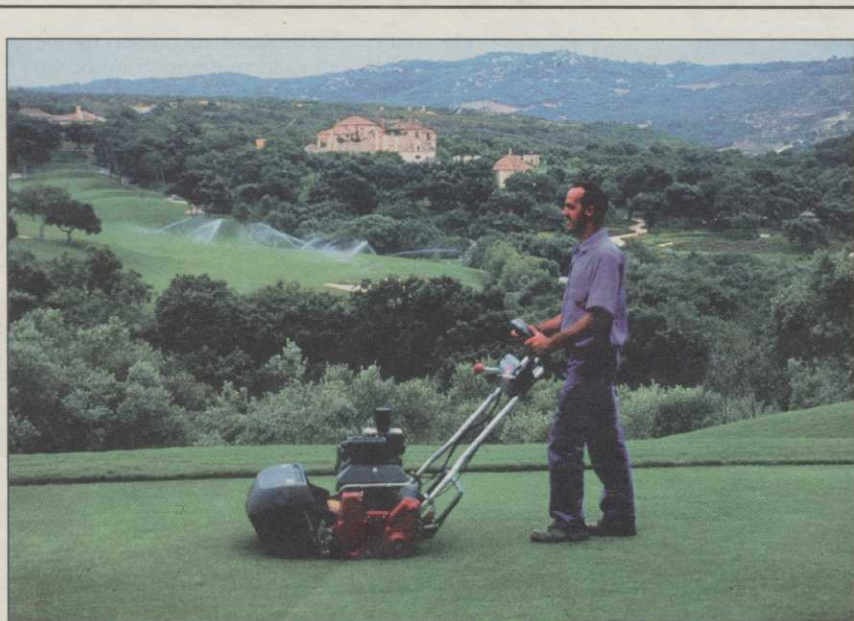
Now, instead of each Kerley representative maintaining a region, reps will be assigned by company. "It's a more centralized approach," said Brian Lawrence, Kerley's director of communications.

Under the reorganization, Kolb will lead the management which includes five teams responsible for different market segments.

Mike Buffington has been named vice president of domestic sales. Reporting to Buffington are three geographically-centered national account managers: Ron Johnson, west; Bill Morris, central; and Garon Steward, east.

Domestic sales will be supported by five account managers in the field who work directly with dealers and retailers. These account managers include Chuck Albrecht, western states and Canada; Val Mitchell, north central states and Canada; Kelly Sears, southern states; Don McNinch, southeastern states; and Jan

Continued on page 50



VALDERRAMA NOW STRICTLY TORO

CADIZ, Spain — The number of exclusive turf equipment provider deals between course operators and manufacturers are on the rise. Valderrama recently entered its deal with Toro — now more are on the horizon. See cover story details on latest deals by Toro and Ransomes.

Rhone, Maruwa team in Japanese market

TOKYO and LYON, France — Rhone-Poulenc Agro and Maruwa Bio Chemical have agreed to establish, as of October 1, 1997, a joint venture to market agrochemicals products for the Japanese non-agricultural land and golf course markets.

The newly formed company, which will be named Unicas K.K.

and headquartered in Chiyudaku, Tokyo, will be 70 percent owned by Maruwa and 30 percent by Rhone-Poulenc Agro. Its Chairman will be Harutoshi Ohura, currently president of Maruwa, and its chief executive will be Akiya Nakamura, president of Rhone-Poulenc Yuka Agro.

The products and the sales network of Maruwa's Green Business Department will form the core of the new joint venture. In addition, Rhone-Poulenc Yuka Agro K.K., the 50-percent owned Japanese subsidiary of Rhone-Poulenc Agro, will contribute its portfolio of amenity products to the new company.

HCC makes first move in Mexico

MENDOTA, Ill. — In its first move into Latin America, HHCC Inc., the makers of Dig-It compact backhoes, has announced the appointment of Consorcio de Maquinaria S.A. de C.V as sole distributors of the Dig-It products in Mexico.

The company said that the move will give its Mexican customers better access to products, increase service and improve parts availability.

HCC is actively recruiting dealers in Central and South America to support its expansion.

Rohm and Haas receives registration

PHILADELPHIA — Rohm and Haas Company has received registration from the U.S. Environmental Protection Agency (EPA) for several new labels for its Dimension crabgrass preventer.

The new labeling covers both the liquid formulation that is sprayed on golf course fairways, as well as the granular formulations that are blended with professional turf fertilizers.

The company said the new EPA registrations will be of value to golf course superintendents because for the first time the Dimension use instructions provide an extensive list of landscape ornamentals that are tolerant to Dimension herbicide.

The EPA has registered the labels that contain the new use directions.

Individual states' agencies have their own label approval processes. The company expects most states to complete this process ahead of the 1998 use season.

LUCAS TO HEAD SEED RESEARCH'S NEW WARM SEASON DIVISION

CORVALLIS, Ore. — Seed Research of Oregon Inc. has named Helen Lucas, a 20-year seed industry veteran,

as manager of its new warm season grass division in Glendale, Ariz.— a division designed to



Helen Lucas

service the company's domestic and international markets.

Lucas spent nine years with Valley Seed where she was the assistant to Royce Richardson and helped coordinate the operations at three locations. Most recently, Lucas was the vice president of sales and export manager for Seeds West.

In other Seed Research news, the company has added two new bermudagrass products, the variety Primavera and the blend Primo. Both grasses were designed for establishing new golf fairways and overseeding of existing bermudagrass fairways.

QUELANT™-Ca

Calcium & Amino Acids

CALCIUM DEFICIENCY CORRECTOR

Addition of calcium to the soil by traditional means is not usually efficient or effective in treating the calcium deficiency of turfgrass. Once applied, the common forms of liming materials can rapidly change to compounds that are insoluble in water and not readily available to the plant. Continuous applications over long time periods are necessary to effect even modest improvements in calcium uptake.

Quelant™-Ca is a newly available amino acid chelated calcium product that corrects calcium deficiencies in turfgrass upon application. Quelant™-Ca provides readily available calcium chelated with amino acids so that it is easily absorbed by the leaves and/or the roots of the plant regardless of most soil and water conditions. The unique formulation of amino acids used for chelation was



developed not only to facilitate absorption by the leaves and roots, but to increase mobility of the calcium within the plant as well.

Quelant™-Ca is normally applied as a foliar spray and may also be applied through fertigation. Either way, it is tank-mix compatible with herbicides, soluble fertilizers, insecticides, fungicides and plant growth regulators. It will even help improve the efficiency of most of these treatments by increasing their absorption and translocation within the plant.

Best of all, Quelant™-Ca is economical to use and it protects the environment.

Quelant™-Ca — a true systemic. It's new...it's unique...and nothing else works quite like it!

For more information about Quelant™-Ca call Nutramax Laboratories' at: 800-925-5187



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Flowtronex PSI opens office in Middle East

DUBAI, United Arab Emirates — Capitalizing on a worldwide thirst for golf, Flowtronex has opened a new sales



Rusty Hassell

and service office here to cover the expanding golf markets in the Middle East and India.

The company has chosen 9-year Flowtronex veteran Rusty Hassell to head the office, which will open in January 1998. It will be Hassell's task to expand sales, build service capabilities and oversee existing pump station installations in the region. The company said the office will be able to service Saudi Arabia, Kuwait, Egypt, Oman, Pakistan, Israel and India.

"Whether an installation is in Kansas or Kuwait, local service decreases customer costs and increases responsiveness," said Dave Brockway, president of Flowtronex. "For us, 'local' now spans the globe, so we are training service providers from Germany to South Africa to Hong Kong to the Philippines to the Middle East," he said.

In other Flowtronex news, the company recently installed South Africa's first variable speed pumping installation at a golf course. The course, Peaconwood Golf and Country Club, was designed by Jack Nicklaus and is located near Johannesburg. Pumping began in mid-July.

The course features a high capacity variable speed pumping system that runs PumpLog, the company's Windows-based monitoring software. PumpLog enabled the station operator to monitor and diagnose pumping functions via a computer modem from anywhere in the world.

The Peaconwood project was designed with the help of local experts, including Andy Blake, an irrigation consultant with Golf Data, and Kevi Levin of Amanzi Engineering.

ORGANICS ON FILM

COLD SPRING, Ky. — Nature Safe Natural & Organic Fertilizers has developed an educational video tape for golf course superintendents on natural and organic fertilizers. The video was produced by Epic of Wisconsin and incorporated the experiences and testimonials from superintendents from around the country.

Toro adds Jamieson to European team

BLOOMINGTON, Minn. — The Toro Co. has teamed up with golf agronomy consultant Bruce Jamieson in an effort to push forward the company's plan to support educational establishments of the training of greenkeepers. Jamieson has over 20 years

of experience in the golf industry and was the director of agronomy for the PGA European Tour for six years. He will continue to operate his own consultancy, B. Jamieson Golf Advisors, in Hook, England, and will act as an independent consultant to Toro in the UK. and

throughout Europe.

"The appointment of Bruce Jamieson as our agronomy consultant is an indication of our commitment to supply 'total solutions' support to our customers," said Bob Buckingham, Toro's European director of sales. "Toro has an in-depth knowledge of how to grow and maintain grass and is able to of-

fer this expertise as an integral part of our service to our customers," he said.

Initially, Jamieson will provide specialized training for Toro's European distribution network. On new golf course construction projects, Jamieson will provide agronomic advice throughout all stages of the development process.



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CIRCLE # 132

Toro, Ransomes

Continued from page 1

Hotels to be exclusive provider of turf equipment and maintenance for Whitbread's eight existing courses and two currently in development. Ransomes will be the exclusive manufacturer and maintainer for the eight courses under the watchful eye of Myrtle Beach National Co.

Toro already has agreements on the books with Canadian Pacific Hotel Group and Valderrama, the home of this month's Ryder Cup matches. For Ransomes, Myrtle Beach is its fifth contract.

From an administrative standpoint, the deals seem to make sense. From the management side, companies get a total package which helps cash flow and the company's yearly budgeting process. From the manufacturer's side, the company can easily track equipment maintenance records, allowing the equipment maker to take a piece of equipment back and keep it in circulation with more confidence.

Outside the financial benefits, the deals create "a mutually beneficial comfort level" between the two parties, said Peter Whurr, director of marketing at Ransomes. "When you put a deal together,

the customer benefits because he knows he now has a direct route into the company. It's more of a business partnership, even though he's still the customer. We can now say, 'If you want some help, just call us.'"

"It allows us to put together a total package," said Don Masini, managing director of international sales at Toro. "Following that, it's easier for us to follow up and keep in contact with the customer in order to meet all their needs," Masini said.

According to Masini, the exclusive provider deal was an American concept that



is growing, and will continue to snowball, overseas, where management group ownership is skyrocketing.

"Outside the U.S., there're aren't that many that are pay and play. So funding is getting more difficult," said Masini. "If you don't have the funds then you can't improve the golf course, and the members don't want to increase the dues they're paying."

"It's about achieving a comfort level for everyone involved," said Whurr. "We sat with them [Myrtle Beach National Co.] around a table, asked them what they needed and how we could get there. It was the first stage of a closer relationship."

For Myrtle Beach National, the issue boiled down to cost and time savings. "We realized we were spending too much time and money on the repairs of equipment we had kept too many years," said Clay Brittain Jr., chairman of Myrtle Beach National. "This caused a lot of downtime. When we decided to bring our equipment up to date, Ransomes came to us with an exceptional package."

"When a management company enters into one of these agreements it's almost like leasing a car," added Toro's Masini. "At the end of the agreement, they can walk away and get a new one or they can purchase it. Either way, it keeps new or well-maintained equipment on the course."

Masini believes exclusive partnerships are simply going to snowball. Whurr heartily agrees.

"There's a much better relationship between the two parties," said Whurr, who added that Ransomes currently has a number of deals in the pipeline.

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IMC Vigoro

Continued from page 45

demanding better quality products, more innovative products. To improve the profitability of the business, we're going to take that money and plow it into R&D as well as additional quality improvements."

Vigoro said that its Professional Products Group will now only market through a network of 70 worldwide distributors supported by a veteran sales team.

"Our link to the customers will now be through the distributors," said Pasztor. "We believe that to be a much more efficient way to do business. These are established distributors, so nothing will skip a beat," Pasztor said.

In addition, the company has stopped manufacturing its "low-volume, marginal products." This, the company said, will permit it to concentrate on its most popular products, those responsible for more than 90 percent of its net sales, such as Par Ex and Woodace.

"The products eliminated were high specialty products that accounted for less than 10 percent of total sales," said Pasztor. "The lionshare of what a golf course superintendent has come to count on from IMC Vigoro will continued to be produced."

"These actions are expected to improve the Professional Products Group's profitability and enable it to more aggressively pursue new product development and quality improvements," said Frank Wilson, IMC Vigoro's president. "Our objective is to serve our customers better, reduce our costs and position the business for long-term industry leadership. We believe this restructuring will accomplish that goal."

Dakota introduces soilmoover

Dakota Peat has introduced its new soilmoovers. The unique tiltable blade and tight turning radius provide unsurpassed maneuverability for the construction of tees, greens and bunkers, cart path construction, or grading and shaping.

Standard features include adjustable hitch height, jack assembly, bolt-on straight cutting edge, reinforced stiffeners, heavy-duty 6-hole wheels, one-way tilt, height control, heavy-duty end walls and side-adjusting blades.

It's manufactured with custom axle and sofrac turf tires or standard axle and tire. Available options include curved cutting edge, mechanical tilt, two-way tilt, landscape rake and laser adaptability. Eight models to choose from ranging in widths from 4' to 16'. For more information contact 701-746-4300.

Ditch Witch adds 1030, 1230

Ditch Witch underground construction equipment now includes the 1030 and 1230, a pair of compact pedestrian trenchers designed for easy operation and maintenance.

These machines offer customer-directed changes from their predecessor trenchers, the 1020 and 1220.

The 1030/1230 design features include a wrap-around style handlebar and an operator presence bail system that does away with the need for restarts because the system does not stop the engine.

For more information contact Ditch Witch worldwide headquarters at 800-654-6481 or 405-336-4402.

Sostram hears Echo

Sostram Corp. has added Echo 75 WDG to its line of turf and ornamental chlorothalonil products. Echo 75 is formulated with Echo Stick which provides maximum weatherability for excellent residual control.

Echo 75 WDG (water dispersible granules) turf and ornamental fungicide contains 75 percent chlorothalonil and is labeled for the control of dollar spot, large brown patch, Helminthosporium melting out and leafspot, red thread, fusarium, anthracnose, copper spot, Curvularia leafspot, gray leafspot, stem rust of bluegrass and pink and gray snow mold, plus a wide variety of ornamental diseases.

For more information contact Sostram Corp at 800-295-0733.

New Holland ready with new Boomers

The new 25- and 30-series Boomer compact tractors from New Holland share the styling, easy serviceability, and quality construction of the larger New Holland Genesis tractors. They are manufactured in a new factory at Dublin, Ga., which was built specifically to manufacture compact tractors.

The Boomers offer fingertip controls, high-capacity live hydraulics, unmatched serviceability and tight-turn SuperSteer FWD front axles. All are powered by 3-cylinder diesels and feature hydrostatic power steering. For more information, contact New Holland at 717-355-1371.

Rohm and Haas introduces Fore FloXL

Rohm and Haas Company has introduced Fore FloXL fungicide, a new wet flowable formulation for the turf and ornamental market. The new flowable fungicide provides improved mixing properties compared to the old flowable formulation. It mixes more quickly in the spray tank. It also minimizes the accumulation of sediment at

the bottom of the container, reducing the effort needed to rinse containers before disposal.

A wet flowable means the product is suspended in an aqueous material, offering the convenience of a liquid. This eliminates the dustiness associated with wettable powders. For more information, contact Rohm and Haas at 800-987-0467.

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Applegate comment

Continued from page 11

lease or purchase arrangements. The competition amongst designers is so strong today that most of us have added services to differentiate ourselves, often called "added value packages."

It is little wonder that golf course developers are often confused about the golf course designer selection process.

Price point alone would confuse the majority. It is possible to encounter fees for design services to range from fifty thousand dollars to over a million. Understanding the scope of services, and comparing them between various design firms, is a worthwhile exercise for the person making the selection.

Whenever the situation presents itself, which must be early in the planning stages, we encourage potential clients to begin their project with a professional business plan supported by a market and feasibility study. Preferably the study will be produced by someone experienced in the golf business. Several firms are specializing in that field and are recognized by financial institutions as creditable.

One focus of such a study must consider who the golf course is being built for; residents, public, resort, or a combination. The study must identify the competition, i.e. comparables in the area. A marketing strategy for the golf course should be developed. The strategy should define the style and type of course, determine if a design "name" is important and address issues of maintenance standards, management, pricing, membership and promotion. Only after the study has been completed should the ownership begin to determine who will be asked to submit design proposals.

The depth of services that any one design firm can bring to a project varies greatly, as we have mentioned. The first time golf developer will benefit greatly from affiliating with a firm that can offer a full package of services that incorporates design, facility use and management. An experienced golf course developer may be better served working with a designer who focuses only on that element of the project.

Trying to be completely objective, we would recommend to anyone contemplat-

ing the development of a new golf course, or the renovation of an existing course, that they carefully identify their reasons for doing it, the market they are attempting to serve and that they evaluate their own experience and knowledge of golf.

The course designer should be selected based on the experience of that firm relative to the goals of the project. A review of candidates for the design phase can then be more focused and help to avoid the confusion factor.

Leslie comment

Continued from page 11

"Or I'll have to arrest you, sir." Sound like a bad joke? Well, in the midst of his busy schedule of bringing about global peace and answering those terrible hounds charging corruption that leads to his door, President Clinton took the time to sign an Executive Order outlawing smoking in the vicinity of federal properties.

Now, keep in mind that our military operates more than 200 golf courses around the country, and you get the picture. In the Muslim countries they have

Religious Police, who make sure women remain veiled in public and that everyone prays when called upon to do so four times a day. Here, we can do them one better: Smoker Pokers, armed and ready coppers who will put you in the pokey if you smoke.

Well, at least we won't have to deal any more with those scores of stogey- and cigarette smokers sully our golfing experience. By the by, keep your eye peeled for a class-action lawsuit being brought against the 15,000 golf courses in America by those many people who got cancer from second-hand smoke while golfing.

Kerley

Continued from page 45

Strem, eastern states and Canada. Brian Smith, vice president of international sales, will lead the sports turf sales group in addition to his international agricultural responsi-

bilities. Reporting to Smith are three regional managers: Dinc Unaran, Europe; Salim El Ghazal, the Middle East; and German Aceves, Central and South America.

"We are confident that this new structure will allow us to reach our objectives of focusing on customer relationships with a sales team support concept," said Kolb.

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CIRCLE #145

Ryegrass ban

Continued from page 45

want to lose our winter visitors, and they don't come here to play on brown golf courses."

"If they were to put a ban on ryegrass from Oregon...that's a big market," added Robinson. "But I find it hard to believe that all those resort golf courses down there won't oversee this fall. That's big business. Talking to superintendents, they seem concerned. But if

it comes down to it I'm sure they'll put their weight behind it too."

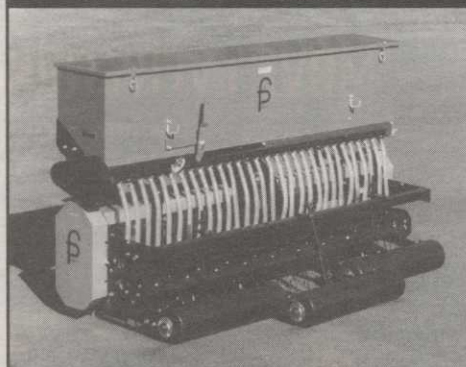
The tourism and the nursery industry is trying to help wheat farmers by writing letters urging the U.S. Department of Agriculture and Congress to lift restrictions on Arizona wheat.

Tests of this year's crop have revealed no blackened or "bunted" kernels.



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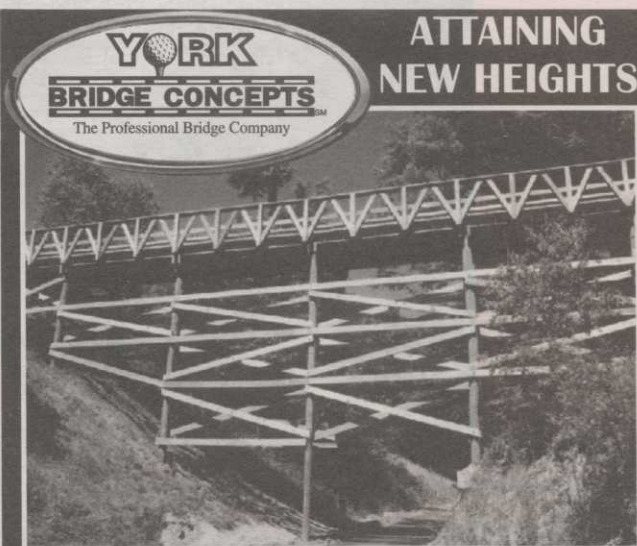
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— Cary Mitchelson, Course Superintendent, Twin Lakes G.C., Oakland Township, MI

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CIRCLE #143

Fischesser

Continued from page 11

included completion of Golf d'Esery, Esery, France; Golf de Chamonix, Chamonix, France; Golf de Chant-Val, Luxembourg; Golf Riviera, Mandelieu, France; Golf St. Donat, Grassa, France; Golf La Bauge, Angers, France; Golf de la Grande Motte, la Grande Motte, France; Golf Esterel, St. Raphael, France; and Joyenval Country Club, Paris, France.

Fluent in four languages, he was responsible for six facilities located in France, Spain and Italy as the director of maintenance for Quality Golf Maintenance and Management Co.

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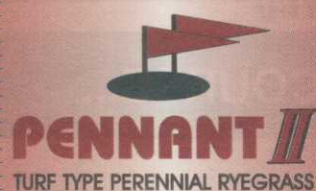


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CIRCLE #138

September

4-5 — *Southwest Horticultural Trade Show in Phoenix.* Contact 602-966-1610.

8-10 — *PGA International Golf Show in Las Vegas.* Contact 561-624-7600.

13-16 — *Club Managers Association of America Leadership/Legislative Conference in Pentagon City, Va.* Contact Tamara Tyrell at 703-739-9500.

17-18 — *University of California Turfgrass and Landscape Research Conference and Field Days in Riverside.* Contact Victor Gibeault at 909-787-3575.

October

6-8 — *West Texas Turfgrass Conference in Lubbock.*

6-8 — *Peaks & Prairies GCSA Fall Meeting & Trade Show in Billings, Mont.* Contact Lori Russell at 406-434-5168.

6-10 — *American Society of Irrigation Consultants Annual Conference at Sea leaving from Miami.* Contact Wanda Sarsfield at 510-516-1124.

7-8 — *West Texas GCSA 11th Annual West Texas Turfgrass Training Seminar in Lubbock.* Contact Robert Campbell at 915-697-5489.

8 — *GCSAA Seminar on The Superintendent as Grow-in Manager in Billings, Mont.**

15 — *GCSAA Seminar on the Microbiology of Turfgrass Soils in Galena, Ill.*

17 — *GCSAA Seminar on Golf Course Safety, Security and Risk Management in Honolulu.**

21 — *GCSAA Seminar on Drainage Systems in Little Rock, Ark.**

22 — *GCSAA Seminar on The Microbiology of Turfgrass Soils in Little Rock, Ark.**

26-28 — *Public Golf Forum in Oak Brook, Ill.* Contact Golf Course News Conference Group at 207-846-0600.

November

2-4 — *18th Annual Irrigation Association International Exposition and Technical Conference in Nashville, Tenn.*

3 — *Georgia Golf Course Superintendents Association Annual Meeting in Savannah.* Contact Karen White at 706-769-4076.

3 — *GCSAA Seminar on Turfgrass Ecology in Seattle.**

4-6 — *Penn State Golf Turf Conference in State College, Pa.* Contact Peter Landschoot at 814-863-3475.

4 — *GCSAA Seminar on Preventive Maintenance of Turf Equipment in San Antonio, Texas.**

4 — *GCSAA Seminar on Turfgrass Stress Management in Syracuse, N.Y.**

4-5 — *GCSAA Seminar on Design, Construction and Renovation for I/PM in St. Louis.**

4-7 — *Turf and Grounds Exposition in Syracuse, N.Y.* Contact 800-873-8873.

6-7 — *GCSAA Seminar on Writing Successfully for Business and Publications in Somerset, N.J.**

10 — *GCSAA Seminar on Employee Safety Training in Rhinelander, Wis.**

11-12 — *GCSAA Seminar on Golf Greens: History, Theory, Construction and Maintenance in Wichita, Kansas.**

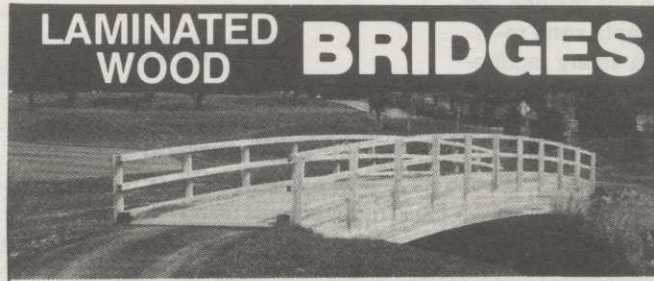
11 — *GCSAA Seminar on Maximizing Turfgrass Disease Control in Lexington, Ky.**

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*Appears in regional editions.

Public Golf Forum: Development

Continued from page 1

A riddle for the ages? Smart, economical development, topped off with a "learning center" to convert occasional players and juniors into core players, may sound like a simple, logical business plan. But if the current National Golf Foundation (NGF) figures tell us anything, it's that new players are

not being converted and are not sticking with the game.

According to the NGF, since 1990, golf participation rates have remained within a consistent range from 11.3 to 11.9 percent. During that time, the number of golfers has hovered around 24.5 million.

To help break out of this rut, Public Golf Forum, Oct. 27-28

here, has aimed this year's Development track at bringing an economical, but fun experience to the existing players and "wanna-be" players.

The goal, of course, is to keep them players.

Denis Griffiths, president of Denis Griffiths & Associates and immediate past president of the American Society of Golf Course Architects, is a firm believer that developers don't have to sink \$10

million into a project to make it a great golf experience, thus making it unaffordable to the average player.

Griffiths will lead the session "Building the Affordable Golf Course," Monday, October 27 at 3 p.m.

"Someone may say that a \$2 million golf course is playing second-hand golf," said Griffiths.



"That's just not the case."

The building of an affordable golf course—one that is, and can remain accessible to a veteran or beginner—starts

with the proper site selection. "Property is absolutely the most important ingredient," said Griffiths. "If I'm looking to build an affordable golf course, I look for the best piece of property instead of the best location. Then you design the golf course to fit the property."

Sounds simple enough, but unfortunately, Griffiths doesn't have many clients looking to build such projects.

"I wish I did," said Griffiths, "because I feel so strongly about the importance of keeping golf affordable. If we want the game to grow, we have to keep it within reach. I'm concerned that if we keep building expensive golf courses we're going to see participation in the sport dwindle."

Tom Kendrick has devoted his work as Golf Manger for the Hamilton County Parks District in Greater Cincinnati to developing participants.

Kendricks will conduct the session "Developing a Learning Center Environment," Tuesday, Oct. 28 at 4p.m.

Prior to 1990, Hamilton County had conventional 18-hole golf courses, but lacked a facility that would accommodate the entry-level golfer. "Traditional 18-hole courses aren't the best places to get golfers started," said Kendrick. "There's a lot of frustration and intimidation there that has to be overcome."

To accommodate the entry-level player, Hamilton County built Meadow Links Golf Course, a mid-length track (all par-4s and par-3s) with short-distance front tees, making it more approachable for beginners.

At Meadow Links, the learning-center hub, Hamilton built three separate areas: a natural-turf practice area, artificial mat T-line, and an area where all instruction is done.

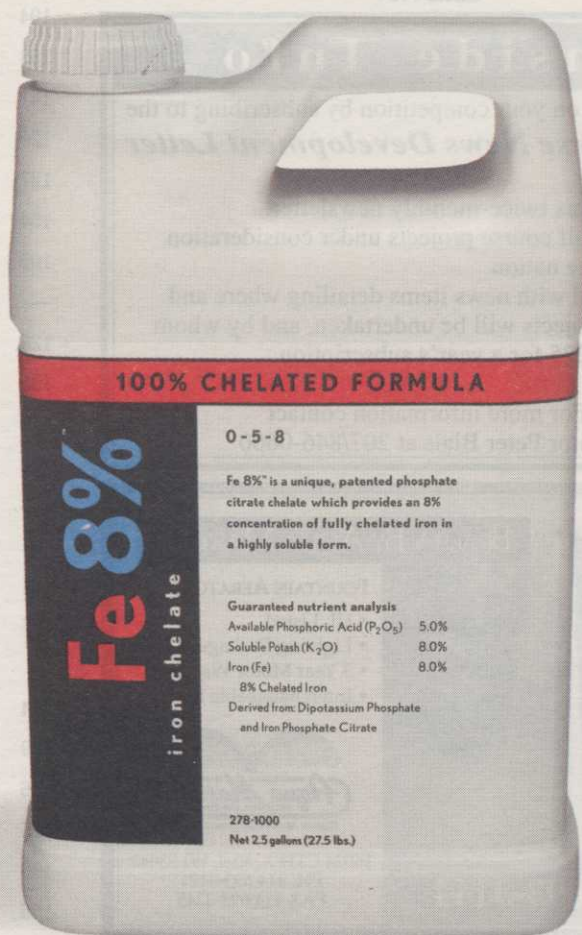
"The program center, where we do the instruction, is completely separate from the practice areas," said Kendrick. "That was done to remove some of the intimidation of taking lessons."

According to the Kendrick, course owners need to eliminate any intimidating factors and make teaching areas accessible.

With that philosophy, Kendrick is seeing results in his bottom line. "Our driving range usage at Meadow Links is up 35 percent over projection over last year," said Kendrick. At Hamilton's two other range sites, usage is up 15 percent and 5 percent, respectively. Rounds played at Meadow Links is up 13.8 percent over projection.

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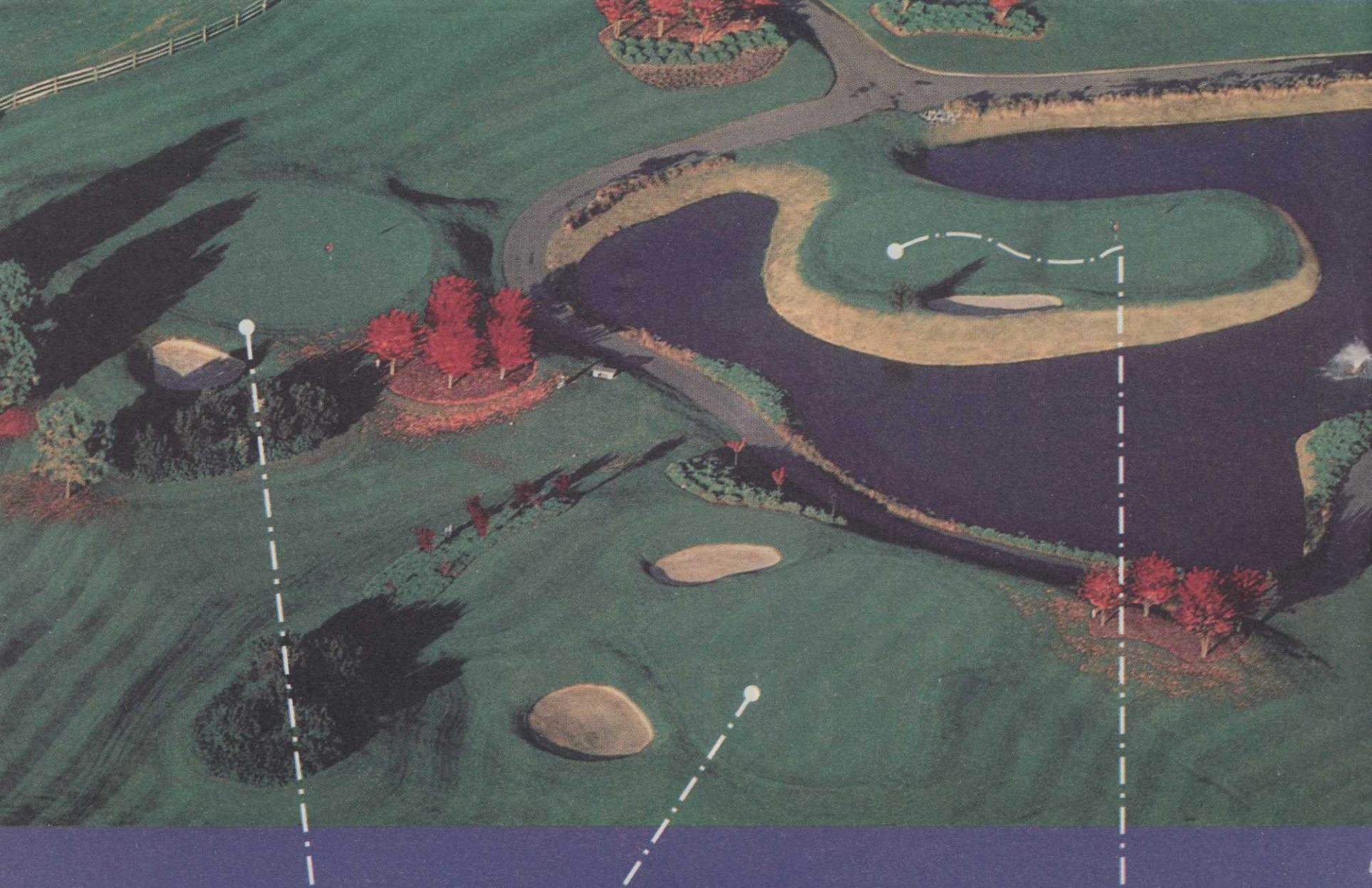
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