

GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

A UNITED PUBLICATION
VOLUME 8, NUMBER 4
APRIL 1996 • \$4.50

INSIDE

Upfront Prep

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

Sod Scarce?

High demand and changing construction philosophies deplete Southeastern Bermuda stock 53

The Public Arena

Virginia Beach hopes to mimic the success of Pinehurst and nearby Williamsburg 62



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.

COURSE MAINTENANCE

Sprinkler uniformity sought but not found 17
New Chemistry: biologicals & nematodes 20-21
Putting green research: Top 10 projects 22

COURSE DEVELOPMENT

Morrish on family-accessible design 11
What's doing in Asia-Pacific? Tons 37
Elkington eyes niche in landscape/design 47

COURSE MANAGEMENT

Meadowbrook stock offering aids expansion 5
ClubLink dominates private Toronto market 49
NGF unveils customized research service 51

SUPPLIER BUSINESS

The Scotts Co. undergoes turnover at the top 53
Kirtland buys Best Sand; FMI, Cactus merge 54
State EPAs sign off on ProStar, Tupersan 57

PLAYERS SURVEYED ON SUPERS' ROLE

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 recognized 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:

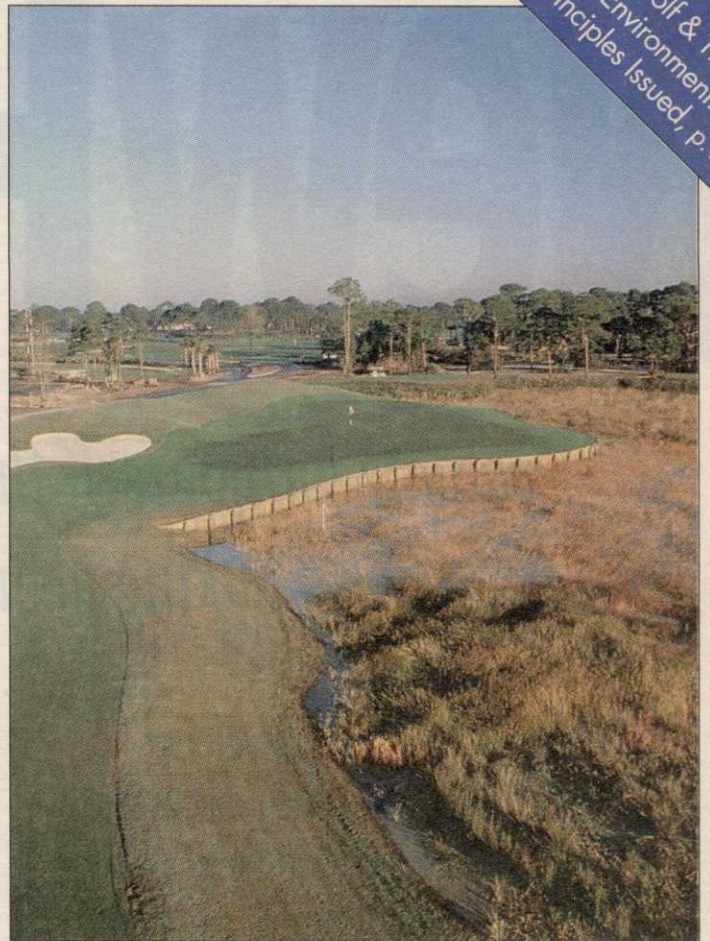
Name designers pull higher dues and green fees

By PETER BLAIS

HARRISBURG, Pa. — Private courses designed by signature architects command higher initiation fees and monthly dues while signature architect-designed daily-fee facilities charge higher green fees, according to a preliminary review of a study performed by a Pennsylvania course appraiser and a graduate business student.

The point of the study is to eventually help developers determine the potential benefit of hiring or not hiring a signature architect in specific markets, and perhaps the difference in hiring one signature ar-

Continued on page 3



SENSITIVE STROKES

Architect Ron Garl worked sensitively around wetlands at the newly opened Indian River Club. Located in Vero Beach, Fla., Indian River is only the third course in the world to be granted Audubon Signature status. The course also embodies the Environmental Principles for Golf Courses recently issued at the conference on Golf & The Environment (see page 16).

Griffiths, Brauer face off on course costs

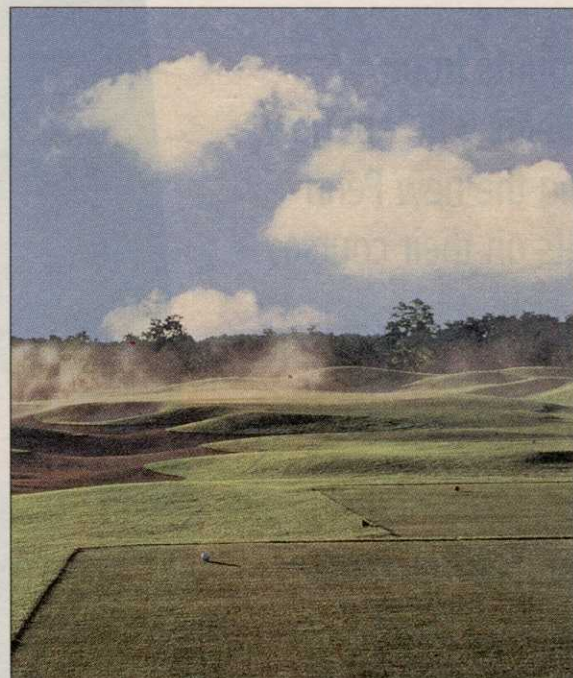
By MARK LESLIE

Worried the cost of golf is starting to drive people from the game, the incoming and outgoing presidents of the American Society of Golf Course Architects have presented arguments that would lead developers to make harsh choices about their projects.

Picking sides in a point-counterpoint atmosphere, Past President Jeff Brauer of Golfscapes in Houston and new President Denis Griffiths of Braselton, Ga., agreed construction costs have escalated too high but disagreed over the cure.

"Ten years ago there were few upscale daily-fee projects," Griffiths said. "Everyone today is doing

Continued on page 46



Shiun Golf Club in Nigata, Japan, a new design from incoming ASGCA 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 agrichemical giant.

The new entity will be known as Novartis, providing Bill Liles, head of Turf & Ornamental for Ciba, his fourth corporate identity in a decade. First it was Geigy. Then came Ciba-Geigy, fol-

lowed by Ciba. Now, it's Novartis.

"I've got a lot of business cards," Liles said with a laugh. "But people have to realize, these mergers always take more time than you would expect. The Ciba-Geigy mergers took three years. From the Ciba side, we will be there to service our products and we will have the product there to serve the marketplace. It will be business as usual."

Ciba products include Banner fungicide, Primo plant growth regulator and

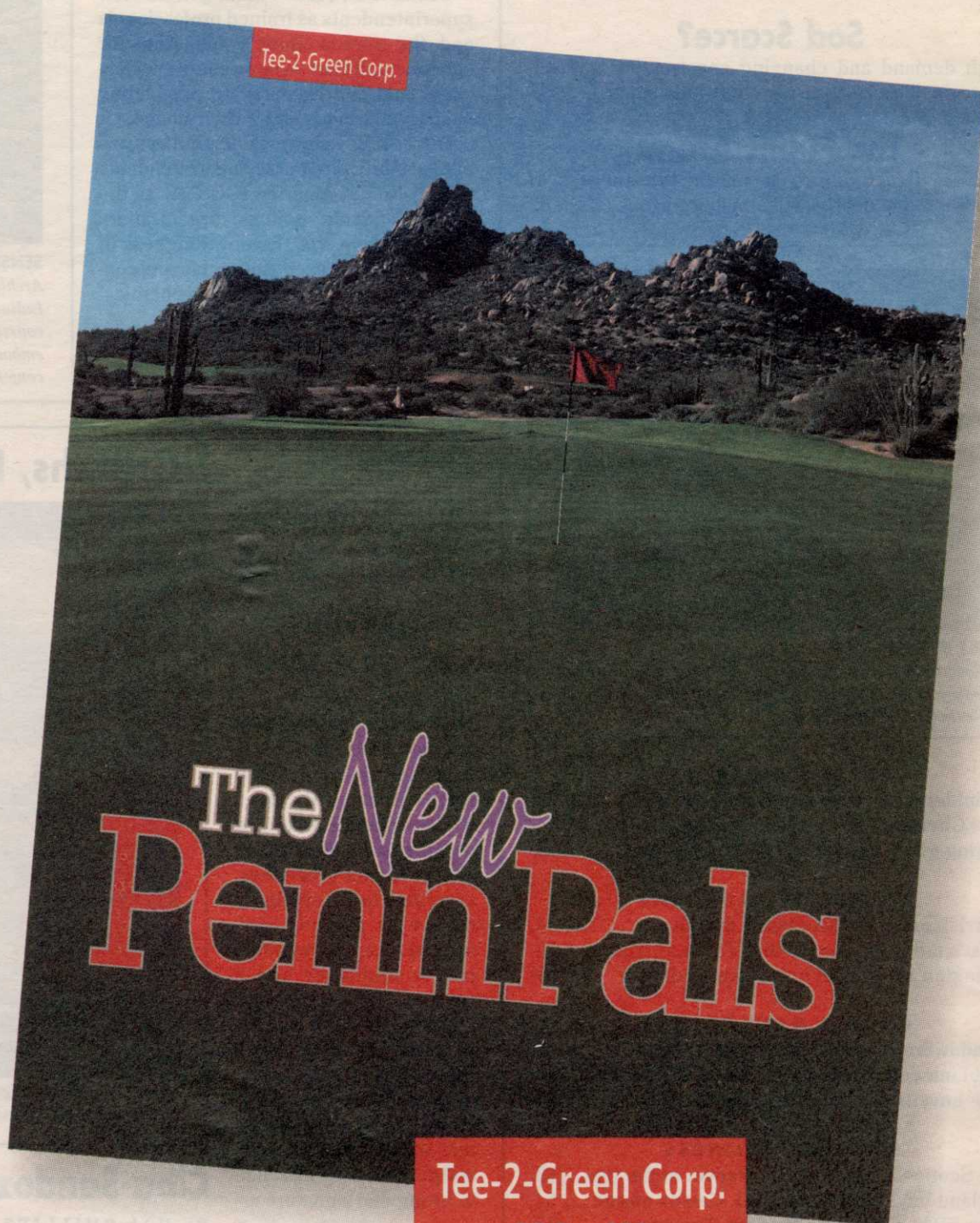
Continued on page 57

New Penn Pals

Evaluate for yourself the new generation of putting green grasses everyone's talking about in this free, colorful, 16 page booklet...

- Penn Pals developer Dr. Joe Duich discusses the exciting new Penn A and G series of creeping bentgrasses
- Colorful photographs of greens and test plots across the country
- Accounts from pioneers who are now using the new Penn bents on their courses
- New root, density, and disease resistance data
- Meet some of the 'Penn Pals' growers, each with more than 30 years of production experience
- Contains information superintendents, designers, architects and managers will want to know

Write, call or FAX today for your free copy of 'The New Penn Pals' and the name of our distributor nearest you.



Tee-2-Green Corp.

PO Box 250
Hubbard, OR 97032 USA
800-547-0255
503-651-2130
FAX 503-651-2351

UPGRADE AT PALMETTO



The Robert Trent Jones Course at Palmetto Dunes, one of the oldest courses on Hilton Head Island, S.C., has reopened after an extensive renovation. While golfers won't notice much of a difference cosmetically in the course, Director of Golf Chip Pellerin of Greenwood Development Corp. said the cornerstone of the renovation is a wall-to-wall, computerized, state-of-the-art irrigation system covering the layout from tee to green. Four tee boxes were expanded, new bulkheading was built on the par-3 8th hole, and the locker rooms were refurbished as well. Over the past two years, Director of Golf Maintenance John Betts has supervised renovations at the George Fazio and Arthur Hills courses at Palmetto Dunes.

Signature design

Continued from page 1

chitect over another, according to Larry Hirsh, president of Golf Property Analysts.

"But what people should realize," Hirsh said, "is that this information must be used in conjunction with a site-specific study that looks at the appraisal issues peculiar to that area."

In other words, while hiring a particular signature architect may be economically worthwhile in one area it may not be in another locale. Hirsh and MBA student James Owen surveyed golf markets in Austin, Texas, Hilton Head Island, S.C., Chicago and Palm Springs, Calif. The signature architects identified in the study were Jack Nicklaus, Arnold Palmer, Pete Dye, Tom Fazio, Arthur Hills, Robert Trent Jones, Robert Trent Jones II and Rees Jones.

A brief summary shows that:

- Initiation/equity fees at private clubs designed by signature architects ranged from 44 to 112 percent higher than non-signature competition.
- Monthly dues ranged from 33 to 66 percent higher than non-signature courses.
- Fees at daily-fees ranged from 23 to 111 percent higher than non-signature facilities.

Annual play at private, non-signature courses was generally higher than signature facilities, except on Hilton Head. And no trend was apparent in the number of rounds played between signature and non-signature daily-fee operations.

Aside from the higher fee generally charged by signature architects, Hirsh said, "In the four markets we've studied, there

In other words, what would be the effect of hiring a signature architect on a course costing between x and y dollars compared to a course between y and z dollars.'

— Larry Hirsh

seems to be a benefit to hiring a signature architect."

GPA and Owen are still analyzing

the data to hopefully measure the added value (if any) of engaging a signature architect. Other issues they hope to analyze will include the effect of signature architects on surrounding development prices and absorption, and the long-term effect of the signature architect to the financial bottom line of the property.

"We've also had requests to stratify the information," Hirsh said. "In other words, what would be the effect of hiring a signature architect on a course costing between x and y dollars compared to a course between y and z dollars?"

IN BRIEF...

SPRINGFIELD, Ill. — Citing a bloated local golf market and an unacceptable financial risk, a private consultant recently advised the Springfield Park Board not to buy The Rail Golf Course, home of the LPGA's State Farm Rail Classic for many years. As a result, the 18-hole course is expected to go back to the open market. Leonard Sapp, the owner of the course who initially offered it to the city for \$3 million in an act characterized as a gift, later lowered his price to \$2 million. Still, the park board voted down the idea. Sapp is expected to go forward with his plan to sell the course but will open it for play this year.

PORTSMOUTH, R.I. — It looks like plans to build an 18-hole, professional-caliber golf course in Portsmouth may be history. Town council members recently opposed the idea at a meeting and a spokesman for the Senior Tour Players Development Inc. said he doubts the plan can get off the ground. The Boston-based company had proposed building an 18-hole layout on land at the town-owned Glen Farm park overlooking the Sakonnet River. The hope was that the course would attract a Senior PGA Tour event. PGA golfer Brad Faxon, who's from Barrington, R.I., was involved in designing a preliminary course plan.

MYRTLE BEACH, S.C. — The Dove, a semi-private par-three 18-hole golf course, is under construction along S.C.

707 and is scheduled to open Aug. 15. According to owner and designer Ed Cook, the 18-hole course will feature full-sized tees and greens and holes ranging from 75 to 130 yards in length. The Dove represents Cook's first venture into the golf business on his own after working with The Links Group for the past two years.

HILTON HEAD ISLAND, S.C. — The pastoral setting of the 230-acre Roller family horse farm near Bluffton is being transformed into Old Carolina Golf Links, an 18-hole public golf course designed by Clyde Johnston Designs Inc. Two holes have been completed by Landscapes Unlimited of Lincoln, Neb. Work has also been done to create some of the 14 lagoons planned for the course. A Nov. 1 opening is scheduled. Future plans call for 60 homesites, according to the developers, David Staley and Tom Jacoby.

MYRTLE BEACH, S.C. — Winyah Bay Golf Club, one of the first golf courses built in this rich golf mecca, has been revived by George Marlowe and his family. The nine-hole course had been closed for almost a year from 1994-95 and was on its way to ruin and disrepair. But Marlowe bought the course in July 1995 for \$1.2 million. Winyah Bay reopened last October and there are now tentative plans to expand the course into a full, 18-hole layout. It's truly a family affair at Winyah Bay. George Marlowe's son, Wade, is the head golf professional. His younger son, Ross, is the course superintendent, and his wife, Amelia, works in the pro shop.

NEW GIANT Aerator Fountains



5-hp. GUSHER Fountain
23-ft. height
850,000 gal/day

Double the height and double the diameter of other 5-hp fountains

You asked for it...

... new high-volume, high-spray aerator fountains that combine really BIG, beautiful spray patterns with deep intake for full aeration of all water levels in your lakes and ponds.



5-hp. SPOKE Fountain
75-ft. diameter
700,000 gal/day

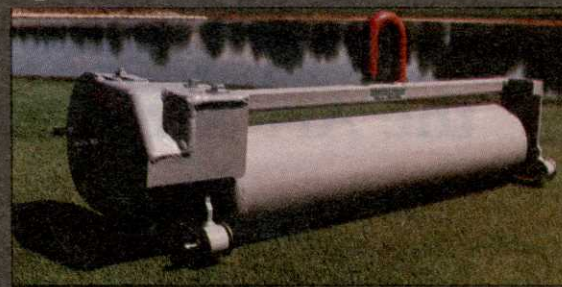
Get the Facts about the BIGGEST values in fountains
Call/FAX 1 800 377-0019

AQUA CONTROL®
...the Leader in new ideas for Beautiful Water Quality Management

New dealer inquiries invited

CIRCLE #102

Superintendent....



Education: Your Future Depends On It

Lightweight Greens Rolling Endorsed!

TRUE-SURFACE^(R)
Vibratory Greens Rolling System

No effect on NATIVE soil

No Compaction

Infiltration NOT effected

FREE University analyses on Rolling

Call 1-800-443-8506

U.S. Patent # 5,261,213 / Foreign Patents Pending

Grow in, Aerification,
Topdressing, Seeding,
Sodding, Tournament
play, Winter heaving,
Dew Removal, etc.

TRUE-SURFACE®
...makes true greens!

Call About Our Demo Program!

CIRCLE #103

Georgia offers money to patient developers

ATLANTA — The Georgia Department of Natural Resources recently dangled a \$3.5 million federal grant in front of developers for a resort and 18-hole course north of Columbus.

The problem is officials said a developer would have a slim chance of success, at least for now. Troup County leaders have lobbied more than a decade for a state or U.S. Army Corps of Engineers resort on 1,200 acres next to Maple Creek at the southern end of West Point Lake. Conceptual plans call for a championship course, lodge, marina and restaurant.

Proponents got a lift two years ago when a local congressman worked the grant into the Corps' budget. The \$3.5 million grant would be used for roads, water lines and infrastructure.

A Corps' study, however, concluded that it will take five to nine years for a market to develop sufficiently to break ground. Still, Burt Weerts, the state parks director, planned to meet with developers at the site and to solicit their proposals. Weerts said he hoped the \$3.5 million federal grant just might be enough to attract the right developer to move forward.

Links planned near SC Disney stop

HARDEEVILLE, S.C. — At least one golf course and probably more are expected to be built in the next few years near The Disney Stop, a \$35-million, 46-acre tourist stop on Interstate 95 about 20 miles from Hilton Head Island.

The Disney Corp. and the American Automobile Association will be the major tenants at The Disney Stop, which will try to lure Disney World-bound tourists and steer others to Orlando with an assortment of theme at-

tractions, shopping and services.

Ground was broken in early March on the facility, which will offer 550 hotel rooms, 2,000 restaurant seats, 30,000 to 40,000 square feet of shopping space, an auto service center and a kennel for travelers' pets. The main attraction will be a Main Street designed to resemble a roadside "Route 66" look of midwestern America in the 1950s. Developers are predicting that 1.5 million people a year will visit the site and new subdivisions and golf courses are planned around the facility, which is expected to generate some 1,480 jobs in the next four years.

NGF offers new golf directory

JUPITER, Fla. — The National Golf Foundation (NGF) will introduce what it calls the golf industry's most comprehensive and complete business directory ever in July.

The 800-page "Directory of Golf" will contain names, addresses and other pertinent information on 40,000 executives and 8,000 golf-related companies, associations and organizations, from golf product manufacturers, retailers and golf schools to golf course architects, builders and suppliers and advertising and media.

The cost of the book for non-members will be about \$59.95. It will be free to members.

Second-class postage paid at Yarmouth, Maine, and additional mailing office. *Golf Course News* (ISSN 1054-0644) is published monthly by United Publications, Inc., 38 Lafayette St., P.O. Box 997, Yarmouth, ME 04096. Phone number is 207-846-0600.

The publisher assumes no responsibility for unsolicited material or prices quoted in the newspaper. Contributors are responsible for proper release of proprietary classified information. Copyright 1995 by United Publications Inc. All rights reserved. Reproduction, in whole and in part, without the written permission from the publisher is expressly prohibited.

Reprints and permission to reprint may be obtained from Managing Editor, *Golf Course News*, P.O. Box 997, Yarmouth, ME 04096. Back issues, when available, cost \$5 each within the past 12 months, \$10 each prior to the past 12 months. Back issue orders must be paid in advance either by check or charged to American Express, Visa or MasterCard.

Golf Course News is distributed in the U.S. without charge to qualified personnel of golf course facilities and to golf course builders, developers and architects. Subscriptions to Canadian golf facilities cost \$25 annually; other paid subscriptions to the U.S. and Canada cost \$45. All foreign subscriptions cost \$125 annually to cover air delivery. All payments must be made in U.S. funds drawn on a U.S. bank.

For subscriber services, please call 215-788-7112. Send address changes to *Golf Course News*, P.O. Box 3047, Langhorne, Pa. 19047-3047.



The Only Company Totally Dedicated to the Art & Science of Golf Irrigation.

From time-proven brass valves to efficient valve-in-heads. From full-featured, computerized central controllers to rock solid, radio-controlled satellites. From rugged, gear-driven sprinklers to solid brass quick couplers. Legacy Golf Irrigation has a complete line of equipment to help you perfect the science of golf irrigation.

But, what's most exciting is Legacy's commitment to the art of service and support. That's why Legacy is now offering its new *Full Membership Program*:



an exclusive service and support program without equal in the golf irrigation industry.

With Legacy, you'll find a refreshing blend of quality products and much needed services that are perfectly suited for making both your golf course more beautiful and your work more enjoyable—all at the same time.



For more information, call 1-800-248-6561 today and ask for your **FREE "Introduction to Legacy Golf Irrigation" packet.**

LEGACY™
GOLF IRRIGATION

Massachusetts attorney general sides with women in private club discrimination case

BOSTON — Massachusetts Attorney General Scott Harshbarger has moved to intervene on behalf of a group of women who have filed a class-action suit claiming they were discriminated against by the Haverhill (Mass.) Golf and Country Club because of their gender.

Harshbarger filed a motion with the Massachusetts Commission Against Discrimination agreeing with the plaintiffs and charged that women members at the private Haverhill club have allegedly been discriminated against on a routine basis because of their gender in gaining full memberships in the country club.

The Haverhill Golf and Country Club has two types of memberships: primary and limited. Under the club bylaws, limited memberships provide extremely restricted access to the golf course. The women members' complaint is that they have been unfairly prevented from getting primary memberships solely because they are women.

'It is simply no longer acceptable for any country club to play by the antiquated membership rules of the 1940s.'

— Scott Harshbarger
Massachusetts Attorney General

Until 1992, primary memberships at the club were restricted to men only. In 1992, following the filing of a previous discrimination complaint by women members, the club officially opened primary memberships to women.

But the pending complaint alleges that

the club has not, in reality, followed through on opening primary memberships to women and in fact, continues to deny them. Currently, fewer than 10 of the club's 300 primary members are women, and seven of those 10 became primary members as a result of a partial

settlement of the 1992 complaint.

Harshbarger said in a prepared statement, "This intervention by my office should send a strong reminder to all country clubs about issues of exclusivity and discrimination. It is simply no longer acceptable for any country club to play by the antiquated membership rules of the 1940s."

Harshbarger's office has intervened in country club issues before. In 1994, a case was settled with the Longmeadow (Mass.) Country Club over discriminatory issues with women and membership privileges.

Meadowbrook Golf announces private placement of stock

BEVERLY HILLS, Calif. — Meadowbrook Golf Inc. (formerly Exacta Inc.) has completed a \$1 million private placement of its common stock that will help the firm proceed with its golf course acquisition and development plans.

As a result of the just-completed placement, the 1995 acquisition of Meadowbrook Golf Group and a 1995 infusion of capital, Meadowbrook has approximately 17.7 million shares of common stock outstanding.

The company has received approval for its common stock to resume trading on the OTC Bulletin Board market. The new ticker symbol is "MEBG."

The proceeds of the offering will be used for working capital and general corporate purposes as the company concentrates on the management, development and acquisition of golf courses and practice centers.

In May 1995, the company acquired all of the common stock in Meadowbrook Golf Group and the business opportunities and relationships that Meadowbrook Golf Group has established in the golf management and development industry.

Currently, Meadowbrook is negotiating agreements for the development of several courses in California, and the potential acquisition of a golf course management company. The company isn't certain these negotiations will bear fruit.

The officers and directors of the company are:

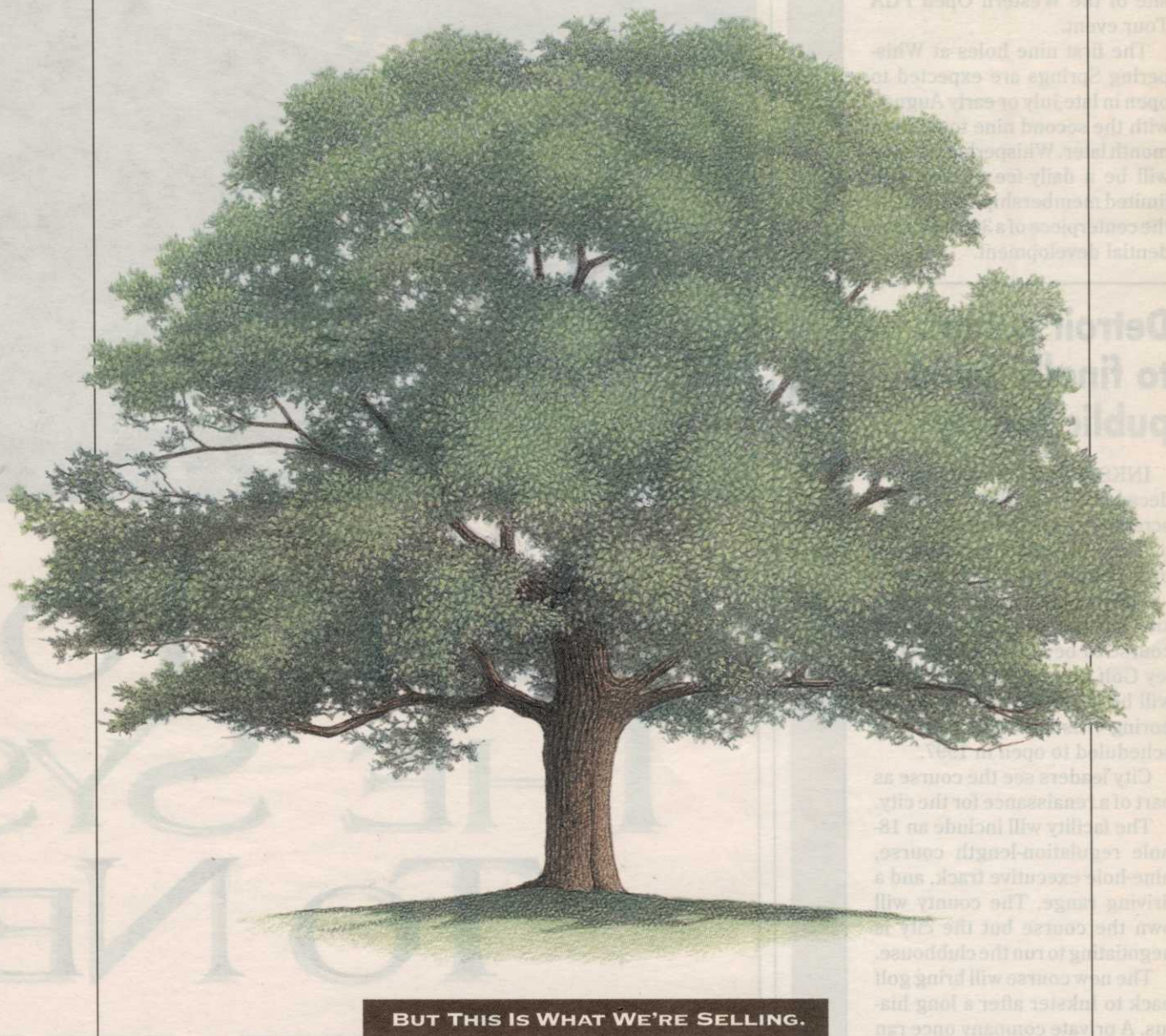
- Arnold Rosenstein, chairman of the board, director and secretary. Rosenstein is an investor, real-estate owner, developer and money manager. He is former president of Realtech Development & Construction and Sports-Tech Inc.

- Roger Behrstock, director, president and chief executive officer. He is president and majority stockholder of Entertainment Capital Corp., a financial consulting, real-estate finance and property development company.

- Glenn Golenberg, director and vice chairman. Golenberg has his own merchant banking firm, Golenberg & Co., and is formerly a partner in Golenberg & Geller, another merchant banking firm.



THIS IS OUR PRODUCT.



BUT THIS IS WHAT WE'RE SELLING.

Inside every container of Alamo® you'll find a strong, healthy tree. Because Alamo is the only fungicide that's effective in preventing oak wilt and dutch elm

disease. Just call 1-800-395-TURF for more details on how it can help preserve a beautiful environment. Which, as you can see, is what we're really selling.



Sponsor Environmental Steward Award. ©1996 Ciba-Geigy Corporation, Turf and Ornamental Products, Box 18300, Greensboro, NC 27419. Alamo® is a registered trademark of Ciba-Geigy Corporation. Always read and follow label directions.

Padula named head super at new Wis. layout

FOND du LAC, Wis. — Robert Padula has been named golf course superintendent at the new Whispering Springs Golf Course currently under construction east of Fond du Lac.

Padula will be responsible for the grow-in and maintenance of the club's new 18-hole golf course and practice center, scheduled to open this summer.

Padula is a native of Downers Grove, Ill., who most recently worked as superintendent at two of northern Illinois' more highly-rated facilities — Pine Meadow in Mundelein and Conway Farms in Lake Forest. While under Padula's care, Pine Meadow was named America's best new public course in 1986 by *Golf Digest*. The same magazine also named Conway Farms one of the country's top five new private courses in 1993.

Prior to serving at those two courses, Padula was an assistant superintendent at Butler National Golf Club, the long-time site of the Western Open PGA Tour event.

The first nine holes at Whispering Springs are expected to open in late July or early August, with the second nine to follow a month later. Whispering Springs will be a daily-fee course with limited memberships and will be the centerpiece of a 300-acre residential development.

Detroit suburb to finally build public facility

INKSTER, Mich. — After two decades of wrangling, the hard-scrabble town of Inkster south of Detroit is finally getting its own 18-hole public golf course.

The Wayne County Commission has approved a \$6.4 million course to be called Inkster Valley Golf Course. Thirteen holes will be in Inkster, five in neighboring Westland. The course is scheduled to open in 1997.

City leaders see the course as part of a renaissance for the city.

The facility will include an 18-hole regulation-length course, nine-hole executive track, and a driving range. The county will own the course but the city is negotiating to run the clubhouse.

The new course will bring golf back to Inkster after a long hiatus. A private company once ran a course on the same site in the 1920s but went bankrupt during the Depression. During the past two decades, wetlands regulations held up plans to build a new golf course. But an agreement was reached to construct two wetland projects in the Lower Rouge Parkway and in the Wayne County Park System.

Dye's Blackwolf Run set to ban metal-spiked golf shoes

KOHLER, Wis. — Blackwolf Run, a 36-hole Pete Dye-designed facility that has been a trendsetter in more ways than one from the day it opened in 1988, is setting another precedent.

Blackwolf Run — where greens fees reached a hearty \$100 last year — recently announced it will not allow metal spikes on golf shoes as of this season. Golfers will be required to wear shoes with non-metal spikes on both the River and Meadow Valley courses. As most other courses that have announced similar policies, the Black

Wolf pro shop will replace guests' metal spikes with non-metal versions at no charge.

Paul Becker, director of golf at Blackwolf Run, said the new policy banning metal spikes should produce a dramatic reduction in wear and tear on the greens.

Blackwolf Run will be the only public-access, daily-fee course in Wisconsin to have a spikeless policy. Several private clubs in Wisconsin and the semi-private Bog in Saukville have either mandated or strongly encouraged a ban on metal spikes.

In another interesting development,

Blackwolf Run plans to introduce a caddie program this year. The caddies — who will be optional — will provide such traditional services as replacing divots, raking bunkers, cleaning clubs and holding pins. The curious twist is that they will not carry golf bags.

Both courses at Blackwolf's 36-hole facility require golf carts. "The design of our courses dictated that golf bags be left on the carts," Blackwolf's Director of Golf Paul Becker told the *Milwaukee Journal Sentinel*.



WE TOOK
THE SYSTEM
TO NEW
LEVELS.

Illinois community set to interview architects

LOCKPORT TOWNSHIP, Ill. — The Lockport Township Park District has bought 237 additional acres near the Stateville Correctional Center, which brings its plans for a public, 27-hole course complex closer to becoming a reality.

The park district bought the property for \$710,000 from the state corrections department in early January, about six months after Illinois Governor Jim Edgar signed legislation allowing the township department to sell excess property.

Park district staff will begin interviewing golf course architects in March and April. If all goes as planned, development of three nine-hole courses — which were first proposed back in 1989 — will begin in October and be completed by summer 1998.

A driving range is scheduled to be completed as early as next summer.

The park district is also considering buying an adjacent 65 acres for the golf courses, which is more hilly and would complement the 237-acre former state corrections site.

Mass. town reloads for another attempt at building new course

PLYMOUTH, Mass. — Although several past attempts have failed, developer Michael Vogel is going to try once again to build an 18-hole golf course on land once owned by Digital.

Vogel has presented a conceptual plan for an 18-hole course and a subdivision on 200 acres of Digital Equipment Corp. land he controls.

Vogel's new proposal is the first that will be considered under the town's new three-acre

rural density development zoning regulation. The town voted last year to increase the amount of land needed for a lot in rural residential zoning from 1 1/2 to 3 acres. The impetus behind the zoning change was to help slow the amount of residential growth in the community by requiring large lots and to also protect the rural characteristics of South Plymouth.

The new rural zoning regulation allows developers to determine how many houses would be allowed on a parcel if each were built on a three-acre lot, but the houses can then be clustered on lots of 40,000 square feet. The remaining acreage must be put aside for open space.

Vogel said his concept for the 200 acres is to cluster homes around a 120-acre golf course, which in his opinion would be allowed under the category of open space.

School official plans course on Ky./Ohio border

COVINGTON, Ky. — A school principal has stepped up to fill what he sees as a need for another public, 18-hole golf course in Campbell County at the Kentucky-Ohio border near Cincinnati.

Alan Ahrman, principal at the Grants Lick Elementary School in Campbell County, has gotten approval to build an 18-hole course on 103 acres of family farmland on the AA Highway. Ahrman said he will buy another four acres for the course.

Ahrman said he wants to build the course because the county-owned A. J. Jolly Golf Course has become too crowded, especially on weekends. Ahrman wants to open his proposed \$2 million par-72 layout by April 1997. He also plans to build a 5,000-square-foot log cabin-style clubhouse.

NY DEVELOPER SET TO OBTAIN MUNICIPAL APPROVALS

PEEKSKILL, N.Y. — With its developer hoping for a construction start this spring, a plan to build a 27-hole public golf course on the Carmel-Southeast border has passed a critical point in a municipal review of the project. The Carmel Planning Board has agreed conditionally to accept a final environmental impact statement, the developer's formal report on how the proposed \$7 million project will affect its surroundings. With the board close to finishing its review, the developer, Centennial Golf Properties of Greenwich, Conn., may start seeking municipal approvals in Carmel and Southeast.

INTRODUCING THE NEW 3215A AND 3235A

A higher-capacity hydraulic system in the 3235A helps deliver better performance on slopes.

NEW TRACTION LEVELS

Increased traction levels. Increased durability levels. Increased comfort levels. Decreased noise levels. That's the new 3215A and 3235A Turf System story in a nutshell. An impressive example of taking a revolutionary idea to a new level.

The new 3235A features a higher-capacity hydraulic system for increased traction. Larger-displacement wheel motors as well as larger-diameter hoses and fittings combine to deliver more hydraulic power at less pressure — resulting in better traction, less tire spin in steep-slope applications.

NEW SOUND LEVELS

Both the 3215A and 3235A feature a new viscous-drive fan that

reduces sound levels by spinning at high rpm only when needed. In addition, the 3235A features a new servo-pump that further reduces sound by reducing the hydrostatic whine common to hydraulically driven machines.

NEW COMFORT/DURABILITY LEVELS

Consider other improvements like more durable and easier-to-actuate RFS™ (Rotate For Service) components and a new seat that delivers more lumbar and side support, and you can see how this new system truly has taken lightweight fairway mowing to another new level.

For the name of your nearest distributor, or free literature, call 800/537-8233. We know you're going to like what you see.



NOTHING RUNS LIKE A DEERE®

Calif. judge rules against driving range

THOUSAND OAKS, Calif. — The driving range at the 18-hole public Los Robles Greens golf course may be closed after a Ventura County judge recently refused to revise an injunction that forbids any golf balls from landing on adjoining property.

The injunction calls for zero golf balls to fall on a construction site for an office building on Moorpark Road next to the golf course.

The city had argued there was no way to keep a golf driving range open without a few stray balls and therefore the injunction should be eased. The city had also said it could solve the problem by building a higher safety fence or realigning the range.

But Judge Barbara Lane de-

clined to modify her preliminary injunction and set the trial date for a permanent injunction on Aug. 19. The city has asked Lane to allow the minimal number of stray balls to pass over the range's existing 40-foot-high protective screen.

The controversy started last year when neighboring property owner Al Dickens sued the city-owned golf course. Dickens complained that 30 golf balls a day pelted the construction site. One of them apparently struck

Dickens in the head on Dec. 8, 1995 and knocked him unconscious. Dickens did not enforce the injunction while the city tried to find a solution to the dilemma, but attempts to find an agreement failed.

City attorney Mark Sellers said he sees no way the city can guarantee there will be no stray balls from the driving range and therefore the range will have to be closed to the public. He said the range could still be used for lessons and controlled groups.

Ore. airport track readies for take-off

BEND, Ore. — An 18-hole municipal golf course project on city-owned land north of Bend Airport has picked up a new head of steam.

Golf Services Group Inc. of Houston, which originally proposed a course five years ago, is interested in developing the course and is in the midst of lease negotiations with city officials.

Golf Services recently announced it had secured some

\$4 million in private investor financing and reportedly wants a minimum 50-year land lease for the course.

One key lure for Golf Services Group is the prospect of the free use of city-owned land as well as treated effluent from Bend's sewage treatment plant.

PGA Tour pro Peter Jacobsen, who lives in Portland, Ore., would design the golf course.

Sacramento track garners county support

SACRAMENTO, Calif. — County supervisors are supporting a proposed 18-hole public course known as the Teal Bend project despite Federal Aviation Administration concerns about collisions between birds and airplanes in the Sacramento International Airport flight path, which runs over the proposed golf course site.

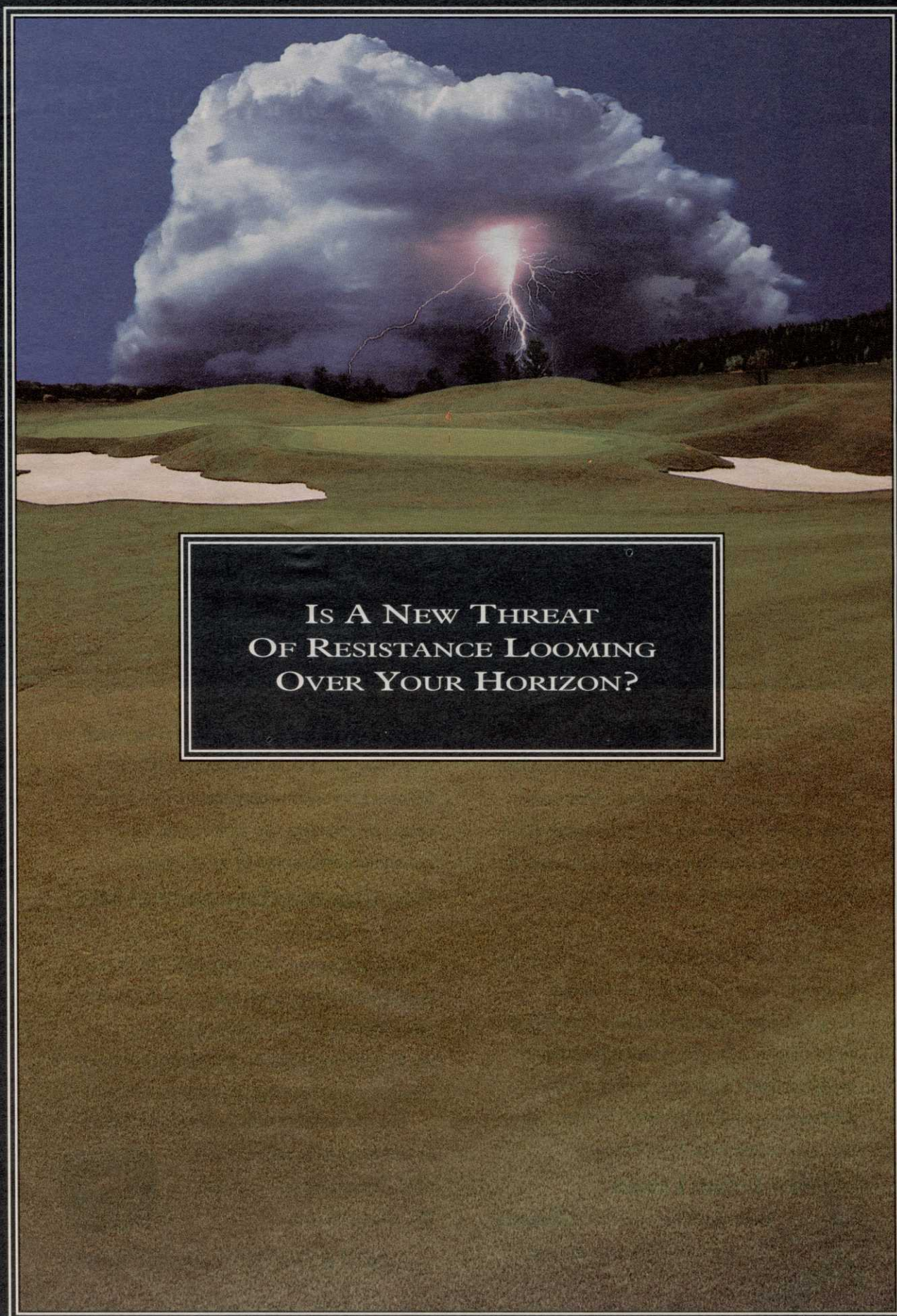
Developer Chris Steele of Rancho Cordova will build the golf course on 284 acres of agricultural land west of the airport between Elverta Road and Elkhorn Boulevard. The facility will include a driving range, clubhouse, pro shop, restaurant, snack bar and 100 acres of additional open space.

A federal aviation inspector had spoken against the proposal, saying the course would attract migrating ducks, geese and other birds that could interfere with airplane traffic overhead, which is already a problem.

County officials and the developer said that they will use scarecrows, dogs, water sprays and approved repellents to try to minimize the bird population on the course once it is built.

ARIZONA LAYOUT TO ADD NINE NEW HOLES

FLORENCE, Ariz. — A facelift is in store for the nine-hole Gold Canyon Ranch Golf Course. The Pinal County Board of Supervisors has approved a nine-hole expansion which would give the mountainous course 18 holes as originally intended. The new nine holes will be used as the front nine and the current nine will be expanded and become the back nine, according to Harold Christ, a representative of Jupiter Realty, the group in charge of the project.



IS A NEW THREAT
OF RESISTANCE LOOMING
OVER YOUR HORIZON?



Judges give green light to Jacksonville plan

JACKSONVILLE, Fla. — A long-awaited Florida Supreme Court ruling has opened the door for developers to begin work on the massive Saint Johns and World Golf Village projects here.

The construction of a residential community and golf resort in St. Johns County had been delayed since last summer by a legal challenge.

In a ruling released in February, the court rejected an appeal to stop the county from selling bonds to build a controversial

\$11 million convention center considered central to the project.

In a unanimous ruling, the justices said the argument by a St. John County political action group to halt the sale was without merit.

Richard Bowers, a lobbyist with the PGA Tour, said the ruling cleared the way for the association to build a planned golf mecca at Saint Johns that will include a \$100 million complex featuring a golf hall of fame and other amenities. The resort is anticipated to

draw a million visitors a year.

Davidson Development, the company building the 7,200 residential units and a golf course on 6,000 acres enveloping the PGA's World Golf Village, also will restart stalled development next month or in early April.

Central to the project was the development of a hotel and convention center. Hotel development could not proceed without the county agreeing to sell \$11 million in revenue bonds for an 80,000-square-foot convention center.

New Nicklaus track to host Tour stop

KAILUA-KONA, Hawaii — The new Jack Nicklaus-designed Hualalai Golf Club at Four Seasons Resort will host the Senior PGA Tour's Mastercard Championship starting in 1997.

The Mastercard Championship will be held the week before the high-profile Senior Skins event and is expected to draw some of the world's best senior golfers. Further, the Mastercard Champion-

ship will be televised on either ESPN or ABC and will be held at Hualalai for at least the next 10 years.

The Hualalai Golf Club is the first facility to be designated a PGA Tour resort. The Nicklaus course in North Kona is 7,117 yards long from the professional tees. The course is private and open only to property owners and Four Seasons Hotel guests at the 625-acre resort.

LA set to review 6-year-old golf course proposal

LOS ANGELES — A plan to build two public courses on sand dunes west of Los Angeles International Airport has been revived after six years of inaction.

Airport officials said the plan, which includes an 18-hole course and a nine-hole layout, will be considered later this year as part of the airport's new master plan.

Officials are halfway through a detailed study, at a cost of \$10 million to \$15 million, to come up with a master plan for the airport that could dramatically change the face of the airport.

The idea of building courses near the airport was first broached in the late 1970s. They were to be built on sand dunes between Pershing Avenue and Vista del Mar, a neighborhood razed by the airport in the late 1960s and early 1970s. The site is home to the endangered El Segundo blue butterfly and endangered lizards and plants. Part of that land was to be earmarked for a wildlife preserve.

The idea surfaced again six years ago, when airport officials said a course could generate profits that could be used to restore the ecosystem of the dunes.

Maui could ease watering bans

WAILUKU, Hawaii — The Maui Council is proposing to ease a ban on the use of potable water for irrigating courses on the small island of nearby Lanai.

The proposal would amend a zoning condition for the Koele project district that prohibits the use of potable water on the course.

Some residents are concerned about damage to the courses if there is not enough irrigation water. Irrigation water is supposed to be from non-potable sources, including treated effluent.

Lanai Resort Partners has struggled for years to develop new irrigation sources. A hearing was held in February on charges the company violated a state Land Use Commission prohibition on high-level water usage.

The threat of resistance is very real. Reports are coming in that repeated applications of the same family of fungicides have forced resistant strains of disease pathogens.

Brown Patch, Dollar Spot and Leaf Spot are creeping back, even after treatment.

But there's a simple way to protect your

perfect cornerstone for a season-long disease and resistance management program.

CHIPCO® 26019 is the proven, broad-spectrum fungicide that gives you unsurpassed control of Brown Patch, Dollar Spot, Leaf Spot, Fusarium Blight and Patch and Necrotic Ring Spot all season long. It's so effective, it even gives you control of



CHIPCO® 26019 keeps Brown Patch in check in the heat of summer.

**BE READY WITH A
ROTATION STRATEGY BUILT
AROUND CHIPCO® 26019**

CHIPCO® 26019 gives you unsurpassed control of Leaf Spot.

course from the threat of resistance.

Product rotation with an alternate chemistry. Alone or tank-mixed, the long-lasting protection of CHIPCO® brand 26019 Iprodione fungicide is the



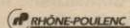
CHIPCO® 26019's long residual is your best defense against Dollar Spot.

Pink and Gray Snow Mold and Corticum Red Thread.

So don't let resistance give you a spotty reputation. CHIPCO® 26019 is the product to start with. The product to rotate around. The foundation for all your tankmix combinations. Call your CHIPCO® sales rep today.



CHIPCO® 26019
FUNGICIDE



Rhône-Poulenc Ag Company, 2 T.W. Alexander Drive, Research Triangle Park, NC 27709. For further product information, please call 1-800-334-9745. As with any crop protection chemical, always read and follow instructions on the label. CHIPCO is a registered trademark of Rhône-Poulenc. ©1995 Rhône-Poulenc Ag Company.

CIRCLE #107

Behold, the very principles you've been waiting for

The second conference on Golf & The Environment, held at Pinehurst in mid-March, was not the unprecedented meeting of minds the first incarnation was.

From all accounts (the press was not invited to last year's conference at Pebble Beach), the inaugural Golf & The Environment seminar was no less than an epiphany, whereby golf industry types and environmental activists realized they had far more in common than previously believed. In the 14 months since the Pebble Beach event, select attendees seized upon their newfound commonality by hammering out the "Environmental Principles for Golf Courses in the United States," written testimony to these shared beliefs.

Because this year's event built on the ground-breaking relationships established last year, the Pinehurst meeting was more love-in than summit. However, this year's meeting was significant because it marked the unveiling of these much-anticipated principles, the bulk of which appear on page 16. Read them. Study them. Copy and distribute them to members of your staff.

It's important to remember these principles are a work in progress. They will change over time, so don't be timid in offering your input on specific issues. Your allied golf association — and we here at *Golf Course News* — fully expect and encourage your feedback. To further encourage you, I humbly offer a few opinions on the principles.

• I was surprised by how broad they were, especially those regarding superintendents and their work. It's my feeling a goodly portion of course managers already abide by most of the ideas spelled out in the maintenance section. Of course, the principles weren't designed to be specific and limiting (note how many times the document uses the word "should").

Continued on page 35



Hal Phillips,
editor

Chase after wisdom via new batch of golf books

The Book of Proverbs urges us to chase after wisdom. Well, what do you know, all of a sudden, the heavens have opened in a deluge of wisdom in the form informational books being published for folks in the golf industry. No matter what your appetite, it seems there is something hot off the presses (or due out soon) meant just for your consumption.

So, it's fitting in this year of the book that "Infomeister" Ron Whitten is honored by the American Society of Golf Course Architects as the recipient of its Donald Ross Award. A man of integrity, esteemed by the entire industry, Whitten walked away from a career as a district attorney to work in the game he loves. Golf, especially those impassioned about course design, have been indebted ever since to this architectural editor of *Golf Digest* and *Golf World*.

It certainly speaks volumes that the person in charge of *Golf Digest's* Best Course polls has apparently remained in the good graces of every architect on this planet. You'd think he would have to wear a flak jacket to dodge bullets at ASGCA meetings, rather than a dinner jacket to receive the society's top award.

Yet, there Whitten stood March 28, accepting the Ross plaque. And perhaps more is owed him than we at first think. This plethora of new golf industry books may be directly related to the success of his collaborative efforts with architect Geoffrey Cornish: *The Golf Course* and *The Architects of Golf*.

Now, there is no more sitting around helplessly waiting five years for Whitten and Cornish's next update. A sampling of what's on the book menu is revealing. Hold the salsa, for me, but here goes:

• Looking for course reviews? *Confidential Guide to Golf Courses* by Tom Doak is both witty and intense as well as insightful. You might say, full of wisdom.

• Interested in biography? Check out Sid Matthews' *The Life*



Mark Leslie,
managing editor

Continued on page 14

Letters

PUBLIC COURSE OWNER RESPONDS TO NICKLAUS

To the Editor:

Title: "Nicklaus: Public-access now driving the market, as golf comes full circle" [GCN Feb. 1996, Guest Commentary].

1. This golf rush exposed a void between the upscale private golf clubs... and their ragged counterparts charging \$8 a round.

2. As designers or developers, we are able to do golf courses which go beyond the \$6 and \$8 dark ages of public golf.

3. Public course golfers are insisting on value. Today's players will pay \$25, even \$200, to play a quality golf course... a golfer who plays 10 times a year only spends \$2,000 compared to the \$50,000 entry fee being charged across town. This concept of bringing real value back to public golf means there's finally enough margin in the green fee to make public golf a financially viable business.

4. Back in the days when the most a public-access course could charge was \$8, developers and designers were handcuffed. The "muni courses" of back then could be identified by their bland, bunkerless lack of character.

NOW! I am one of those ragged, bland, almost bunkerless, dark ages, not financially viable public golf course owners. Horse hockey! We are a very successful nine-hole track located in southwestern Michigan. A challenging, you gotta hit it straight and plan every shot, fun,

lots of hills, water, woods, only two adjacent fairways, wildlife to the max, member of Audubon International, absolutely gorgeous and nicely laid out by myself.

Try to explain to us why we are not a contributor to the game. It is dedicated people like ourselves who promote and educate all golfers to the point that they may think of joining the upscale private golf clubs he talks about; and we charge \$7. I wonder where he is coming from, other than trying to convince us we need him in the equation so we can become financially unviable!

Ed Schnurr, owner
Gun Ridge Golf Course
Hasting, Mich.

ON THE SUBJECT OF ALGAE

To the Editor:

I received the March issue of *Golf Course News* today, and read with great interest your article on page 23, "Case makes his case for inventive algae cure" [GCN March 1996].

It never ceases to amaze me how publications will validate crackpot, and technically ineffective or often dangerous "home" remedies for turf care, while overlooking the science developed for that care, and simultaneously overlooking the interests of their advertisers.

In reading the article, Mr. Case was clear that this method (using a fan to dry algae) can be dangerous, and must be manned

at all times by a maintenance worker, and can take up to three hours per green. What Mr. Case doesn't say, or perhaps doesn't know, is that blowing air over algae may temporarily dry it out, but doesn't necessarily kill the algal organism. To accomplish that, turn to page 52 in the same issue of your own publication, and you'll find an advertisement for PBI Gordon's product "Algaemec," which is EPA-registered, biodegradable, university-validated and a field-proven cure for algal pathogens on turf. Additionally, based on the time necessary for Mr. Case to accomplish his task with a maintenance worker in attendance, the cost of using "Algaemec" would be one-tenth of the cost of having a maintenance worker standing around to "watch carefully" so that no damage is done by the fan.

I agree that it's occasionally nice to show some "natural alternatives" to some things in the industry, but for heaven's sake, please research it a little better.

P.S. — We are the formulators for PBI Gordon's "Algaemec," as well as the Scotts Co.'s product "Algaen-X," so we know from whence we speak.

Ray Kimmel, president
Parkway Research Corp.
Houston, Texas

Ed. — Our "On the Green" column is meant to share innovative maintenance ideas with superintendents. Mr. Kimmel refers to an article spelling out how to control algae by using a fan to dry it,

along with some cultural techniques to address the problems leading to the disease. Our intent was to show another tool, not the one definitive tool or single answer to algae. Indeed, U.S. Golf Association Mid-Continent Region Director Jim Moore said: "I haven't seen a surefire cure for algae. Like any disease, weed or insect, there is no chemical or technique that will permanently get rid of algae unless the conditions that favor its development are corrected as well."

"Sometimes you get a very small area where it is difficult to eliminate algae, and it can be easier to tackle that spot with a fan. Just as chemical control is usually a stop-gap measure rather than a cure, so too is this fan. The fan changes the microclimate of that algae by blowing air down on it. You also have to correct other problems that have led to that area being too wet for too long."

GCSAA SETS RECORD STRAIGHT

To the Editor:

I would like to point out several gross inaccuracies contained in the February *Golf Course News* article about Golf Asia [GCN Feb. 1996] written by Rob Glucksman. The unfortunate thing about these inaccuracies is that they could have been prevented with one investigative phone call to the GCSAA headquarters by Mr. Glucksman or you. Instead, false information

Continued on page 15

GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

Publisher
Charles E. von Brecht

Editorial Director
Brook Taliaferro

Editor
Hal Phillips

Managing Editor
Mark A. Leslie

Associate Editor
Peter Blais

Editorial Assistant
J. Barry Mothes

Contributing Editors
Terry Buchen, CGCS, MG
Vern Putney

Editorial Advisory Board
Raymond Davies, CGCS
Merced Golf & Country Club
Kevin Downing, CGCS
Willoughby Golf Club
Tim Hiers, CGCS
Collier's Reserve
Dr. Michael Hurdzan
Hurdzan Design Group
Mary P. Knaggs, CGCS
Hazelton National Golf Club
James McLoughlin
The McLoughlin Group
Kevin Ross, CGCS
Country Club of the Rockies
Brent Wadsworth
Wadsworth Construction

Production Manager
Joline V. Gilman

Circulation Manager
Brenda Boothby

Editorial Office
Golf Course News
Box 997, 38 Lafayette Street
Yarmouth, ME 04096
207-846-0600; Fax: 207-846-0657
hphillip@gcn.biddeford.com

Advertising Office
National Sales:
Charles E. von Brecht
Box 997, 38 Lafayette Street
Yarmouth, ME 04096
207-846-0600; Fax: 207-846-0657

Western Sales:
Robert Sanner
Western Territory Manager
2141 Vermont
Lawrence, KS 66046
913-842-3969; fax: 913-842-4304

Marketplace Sales:
Diana Costello-Lee
207-846-0600; fax: 207-846-0657

Golf Course Expo Sales
Douglas Oakford
207-846-0600; fax: 207-846-0657

Subscription Information
Golf Course News
P.O. Box 3047
Langhorne, PA 19047
215-788-7112

United Publications, Inc.
Publishers of specialized business and consumer magazines.
Chairman
Theodore E. Gordon
President
J.G. Taliaferro, Jr.

NGF CHARTER MEMBER
NATIONAL GOLF FOUNDATION

BPA INTERNATIONAL

Copyright © 1995 by United Publications, Inc. All rights reserved and reproduction, in whole or in part, without written permission from the publisher is expressly prohibited.

By JAY MORRISH

Equitable design should lead to family-accessible courses

As our lives become more complicated, and as time pressures build, more families are turning to leisure activities to spend time together. This leisure time takes many forms, not the least of which is golf. It's not uncommon these days to see grandparent, mom, dad and youngster all hitting the links together. But the question for the members of the American Society of Golf Course Architects is, how does one embrace this trend in their designs?

Golf course design is complicated at best, and to design a family-oriented course — fair and fun for all members — is difficult because we never know if the users will be the Nicklaus family or the Adams family. More than likely, there will be a mixture of skills, sometimes ranging from low handicaps to high handicaps.

One of the great players in the world once told me "golf is not fair, and it isn't meant to be; but if you play enough golf, the good breaks and the bad breaks balance out. You just hope you don't get the bad breaks during the U.S. Open."

Until we allow a designated hitter

A member of the American Society of Golf Course Architects, Jay Morrish in one of design's great collaborators, having worked with or for Robert Trent Jones Sr., Desmond Muirhead, George Fazio, Jack Nicklaus, Bob Cupp and Tom Weiskopf. Now in business with son Carter, Morrish works from his office in Flower Mound, Texas.

rule similar to baseball, there will always be difficult and "unfair" shots for high-handicappers on any well-designed course. Still, there are some design disciplines that architects can use to ease the pain a bit if the golf course is designed specifically for family fun.

Fairness and equality should begin with the tee locations. Most courses built in the past two decades have numerous sets of tees, so this is nothing new. Unfortunately, these tees have acquired names: championship, regular, seniors', and ladies'. Many players who are not capable of hitting the ball a great distance refuse to play from the tee that suits their games, because their egos will not allow it. Therefore, we see mid-handicappers playing from the championship tees, senior players shooting from the regular tees, etc.

Remember, ego has ruined more handicaps than golf course architects! We have even designed some courses with five sets of tees, and have recommended that the back tees be used only for special events or for the lowest-handicap players. It is very important that family members select the tees that best fit their games, if the goal is to



Jay Morrish

enjoy the game.

Fairways should be generous in width so high-handicap players have a large target area, and should feature "preferred" areas which create easier second shots for the good players. These "preferred" areas frequently are next to

hazards. If lesser players happen to drive into these preferred areas, so much the better, but they should not be punished for playing away from the problems.

Another method members of the society are employing to make golf courses more friendly for the entire family is to design more grass bunkers (grassy hollows). This may be the most important "perceived" equalization of players' abilities. Most really good golfers would rather play from sand than from long grass.

Conversely, poor players dread sand shots and normally would opt for a poor lie in long grass rather than a good lie in sand. The beauty of grass bunkers is that they can be maintained at any desired height, and can be changed in just a few days for optimal play or the most penal conditions, whereas sand is sand, and plays the same way day in and day out.

Probably the single most equitable design principle concerns greens. It is an easy and fair solution to design greens which allow players to bounce the ball to half of each putting surface without crossing a hazard. Hazards in front of greens (especially water) do not affect expert players so much, because they rarely hit a "fat" shot, and generally determine the proper club to carry the hazard. They may miss the shot to the right or left, but not often short. Poor players, however, miss shots left, right and short. By allowing high-handicap players to bounce the ball onto the putting surface, we can at least help eliminate one of their problems.

[This is not a new concept. Anyone who has played golf in Scotland knows that most greens receive shots bounced along the ground and are marvelous fun. It is a great part of golf in the United Kingdom, but often neglected in the United States.]

The use of water hazards in golf is something rarely seen in Scotland but has become a main design feature in the United States, and rightfully so. The strategic use of beautiful lakes, rivers and streams adds a dimension to golf that is an American tradition we cannot do without. (A lot of water also sells real estate.)

We must be careful with the use of water, however. It probably should not affect golf shots on more than six holes out of 18. Too much water takes the fun out of golf for high-handicap players. If

Continued on page 14

Add it up!

It equals superior pumping performance.

UL LISTED

1 UL Listed

Our Silent Storm variable speed pump stations are UL Listed for safety.

14 FlowNet

The industry's most comprehensive service network of factory-trained technicians that puts professional help only a phone call away.

13 Superior Strength

Advanced construction techniques such as submerged arc-welding and pressure-testing manifolding up to 500 psi ensure that the station will exceed the physical demands of operation.

12 Steel Grit Blasting

All piping and structural members are steel-grit blasted prior to painting to provide a clean base for optimum adhesion.

2 Pressure Transducers

Stainless steel pressure transducers (vs. plastic) are accurate and long-lived.

11 Fabricated Steel Discharge Heads

The steel discharge head has superior strength (60,000 lb. tensile vs. cast-iron 30,000 lb.).

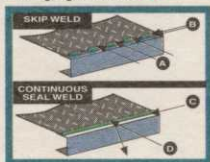


10 Integral Wetwell Cover

The station skid safely covers the wetwell and a built-in hinged panel provides easy access.

9 Continuous Weld

Skip-welded skids allow water to penetrate the skid seal, creating rust damage. An uninterrupted weld around the deck plate prevents water from penetrating the top of the skid, minimizing station-damaging corrosion.

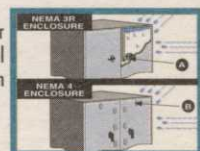


3 OTIS

The Operator Terminal Information System has a scrolling LED readout displaying important station operational data which allows you to easily monitor and control station operation from the panel door.

4 NEMA 4 Enclosure

While a lower-rated enclosure may fail under harsh conditions, the NEMA 4 enclosure provides optimum weather resistance and protects vital electrical components from chemical corrosion and water damage.



5 SLAP

Surge and Lightning Advanced Protection provides the station's vital electrical components with superior protection from lightning and power surges.



6 Smoothflow

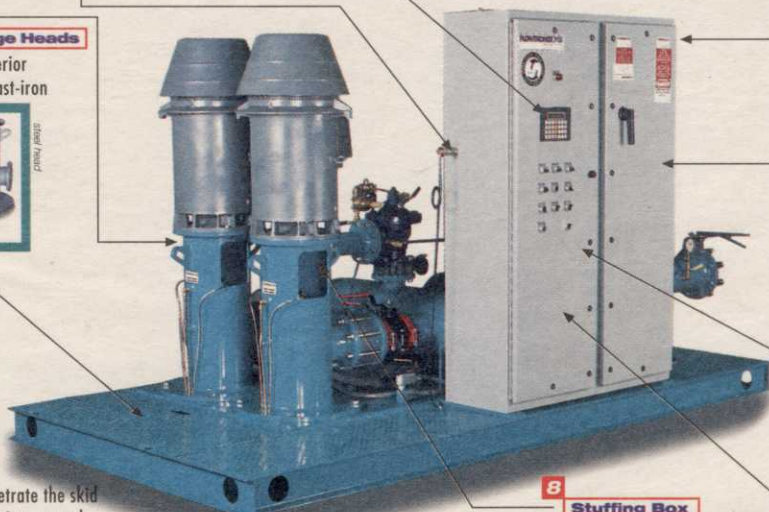
Sixth generation Smoothflow is the most powerful and user-friendly control software in the industry.

8 Stuffing Box

Water is ported back to the wetwell from two points within the packing, helping to keep the station dry and leak-free.

7 PumpLog

Our remote pump station monitoring software provides access to your station from almost any location via modem.



FLOWTRONEX PSI
Pumping Systems



FLOWTRONEX PSI Ltd 1-800-786-7480

INDUSTRY LEADERS IN QUALITY • SERVICE • INNOVATION

10717 Harry Hines Blvd. Dallas, Texas, U.S.A. 75220

phone 214-357-1320

fax 214-357-5861

© 1995 FLOWTRONEX PSI Ltd

LIT 007A, 12-95

PREEMERGENCE TURF HERBICIDES



Evaluating preemergence turf herbicides can be like comparing apples and oranges. True, all of them control weeds. (To some degree, at least.) But a closer look reveals big differences. When you consider all the products on the market, you'll find:

- A lot of them focus on low price.
- That's usually because they don't have much else to offer.

S. DIMENSION®



Dimension® turf herbicide, on the other hand, gives you real value. Dimension offers premium performance, along with extra benefits that make your job easier. Here are a few reasons why Dimension stands out from the competition:

- Dimension provides unmatched crabgrass control.
- It controls crabgrass all season long—without breakthroughs.
- Dimension also handles goosegrass, oxalis and spurge.
- Fall applications help you manage unwanted *Poa annua*, as well as crabgrass and other weeds.
- Altogether, Dimension takes care of more than 20 tough weeds.
- Dimension works before or after crabgrass appears, extending your application window.
- It's *completely non-staining*—all you see is great-looking turf.
- You can stretch the long-lasting control of Dimension *even further* with split applications.
- Dimension works at low use rates.
- It's labeled for lawn care and golf course uses.
- Dimension offers the application flexibility of sprayable EC or granular fertilizer formulations.
- You can overseed just three months after application.
- And you can always count on exceptional turf safety.

To find out more about the benefits of Dimension, see your local Rohm and Haas distributor.



Weed control beyond compare.

ALWAYS READ AND FOLLOW
LABEL DIRECTIONS FOR
DIMENSION TURF HERBICIDE.



Dimension® is a registered trademark of Rohm and Haas Company.
©1995 Rohm and Haas Company T-0-147 9/95

Leslie comment: Chasing wisdom

Continued from page 10

and *Times of Bobby Jones*. Here is a true American hero, not one of these 1990s-style persona-non-integrity types.

- Want to know the down-to-earth particulars of design and construction? *Golf Course Architecture* by Dr. Michael Hurdzan and *Guide to Golf Course Irrigation System Design and Drainage* by Edward Pira will leave few questions unanswered.

- The latest in maintenance techniques and research? Dr.

J.M. Vargas has released his long-awaited *Management of Turfgrass Diseases* and Dr. James B. Beard and Toshikazu Tani have co-authored *Color Atlas of Turfgrass Diseases*. Any further questions, class? Then you might find them in a book about the secrets of greenkeeping by former GCSAA President Mike Bavier and former Canadian GSA President Gordon Witteveen, or Beard's upcoming *Fundamentals of Golf Course Maintenance*. Both are due out in

early 1997.

- Want to read the greats? Books are coming from even beyond the grave. *The Spirit of St. Andrews* by Alister Mackenzie is a full diet of design, with a morsel of playing tips tossed in. And due out this spring is *Golf Has Never Failed Me*, the lost commentaries of Donald Ross compiled by (guess who?) Whitten.

All this adds up to one thing: wisdom. So, pursue it, eh?

...

Right now, like an older professor, Robert Trent Jones

Sr. wants to add more "use" into the game of golf. Thus he is enthusiastic about his collaboration with son Bob on a course in the Disney Co.'s town of Celebration outside Orlando, Fla. (see story page 37). This short, par-3 course is geared to children as well as adults. Jones Sr. wants children to play the game. How does he intend to draw them in? Far-forward tees, even to the extent of building tees up on the doglegs of par-4s.

"This way, youngsters can play the course without being embarrassed," said Bob.

...

Asked if superintendents who don't belong to chapters are a threat to the profession, our Super Focus subject of the month, Jean L. Esposito, said: "What I fear are the ones who have little or no connection with anyone at all. There is so much going on in regulations that they could accidentally get themselves caught up in. Government reactions [to mistakes] come back through the ranks, even those who are doing things the right and legal way."

"Your whole industry gets a bad reputation because of one individual who uses a product in the wrong way... This has happened with the poor landscape industry because of one person who just hangs out a shingle. All landscapers all of a sudden get painted with the same broad brush."

Introducing our new 1996 DS Electric with PowerDrive Plus.™

[Launching pad not included.]



Our PowerDrive® tech-

nology has really taken off. Last year, we created the PowerDrive System 48™, the world's first 48-volt electric golf car operating system. It's the standard by which all other electric cars are measured.

And for 1996, we've developed a new DS Electric system – PowerDrive Plus™. It features all the advantages of our original PowerDrive System 48. Plus we've added greater hill-climbing power, with controlled downhill speed for safer operation, and power regeneration to help the batteries last even longer. In fact, we back our exclusive 8-volt batteries with a 4-year, 800-round limited warranty.

Which system is best for you depends on the number of hills on your course and their grades. Let your Club Car representative help you decide. For a test drive, give us a call at 1-800-643-1010.



Golf's Driving Force.

Club Car®

Morrish comment: Designing it for the whole family

Continued from page 11

the architect determines that six water features fit his strategy, he probably will design those holes so that the water is on the left in four instances and on the right on the other two. The reason for this is simple. When good players miss a shot, it is usually hooked to the left, whereas poor players will slice to the right seven out of eight times when missing a shot.

The last, but very important item concerning family-friendly design is maintenance. Architects and superintendents should work hand in hand to make the courses play fair. One problem constantly encountered is the length of roughs. For everyday play, roughs should be mowed at a height that will help players. This means that it is short enough so you can easily find your ball, but long enough to keep balls from rolling into a worse lie. In other words, the rough should "help," not "hurt."

Golf courses afford one of the best chances for families to spend time together and experience the great outdoors. No, strolling a beautiful fairway is not the same as hiking a wilderness area. But then again you can't chase a little white ball in the wilderness — that is, unless you're really wild off the tee.

Letters

Continued from page 10

was published which could prove damaging to GCSAA and this year's educational program at Golf Asia '96. Lazy journalism seems to be accepted today but the preparatory research for this article left all stones unturned. In addition, Mr. Glucksman's failure to attribute negative quotes to an individual is disturbing and violates common journalistic integrity practices.

I would like to summarize the inaccuracies and would expect that a retraction be printed in your March issue of *Golf Course News*:

1. GCSAA's educational program is entitled, "GCSAA's Educational Seminar Program," and will be presented in partnership with Ransomes, March 27-30, 1996, at the World Trade Centre. In total, GCSAA will offer almost 40 hours of seminar training on golf course technical and management subjects. Mr. Glucksman has confused GCSAA's educational program with that of IMG/Connex's "Asia Pacific Golf Conference."

2. The quotes attributed to the anonymous member, therefore, are incorrect and irrelevant. GCSAA has priced its four-day program at \$275 U.S. for members and \$350 for non-members. This price amounts to less than \$100 per day for GCSAA member attendance, which is comparable to our United States seminar fees.

3. The additional references to the keynote speaker and recommended attendees were incorrect, again, due to lack of research.

4. To then mention and compare GCSAA's education to the education provided at the recent Hong Kong show is misleading and unnecessary.

Don Bretthauer, GCSAA's chapter relations manager, has informed me he had a conversation with Mr. Glucksman and member Gene Palrud at the Orlando Conference and Show. Mr. Palrud, also of Hong Kong, acknowledged that he had received GCSAA's educational brochure and was aware of the program being offered. GCSAA mailed a full brochure in early January (like the one enclosed) to every GCSAA member in the Pacific Rim via first class air mail. In addition, Connex Pte. Ltd. also included this brochure in a mailing completed in mid-January. Mr. Glucksman, as a member through his company in Hong Kong, should have also received this brochure.

GCSAA has worked extremely hard during the past two years to improve the education provided to its members in Singapore. Due to your inaccurate story, we have had several calls to GCSAA inquiring about the high price of GCSAA's Golf Asia seminars this year. Unfortunately, even a retraction may not be sufficient enough to undo the damage caused by this article. I would

suggest that, in the future, Mr. Glucksman and the editors at *Golf Course News* may want to research information more thoroughly before printing inaccurate articles such as that found on page 86 of the February issue. Your immediate attention to correcting these inaccuracies would be appreciated.

Bruce R. Williams
GCSAA President
Lawrence, Kan.

Ed. — Golf Course News regrets the subpar reporting effort. This letter, as it is more thorough, appears in place of a retraction.

MECHANICS ORGANIZE IN FLORIDA

To the Editor:

I have been a mechanic for 28 years and 10 of those years have been in the golf course industry. I am currently shop manager at John's Island's Club West and over the years I have witnessed a need for more professional mechanics.

Three years ago, I organized the Treasure Coast Turf Mechanics Association. The Association has grown from seven members to 47 in three years. The purpose of the Association is to educate, assist and set forth a positive example for the technicians to pursue a higher standard of professionalism. Membership growth has been through the training and the knowledge gained. Training has been on utility vehicles, reel grinding, hydraulic systems, oils and greases and environ-

mental issues to name a few.

The Association keeps us up to date on new trades and equipment, which helps us keep up with the demands of the superintendent and golf course requirements. The meetings are bi-monthly and on the first Tuesday of the month, at different courses in their turf-care facility. This gives each member an opportunity to see different operations. These give them valuable knowledge to take back their own facility. By joining a local association, the mechanic can bring more professionalism to the industry that may someday bring state and national associations.

Gary Petzold, Sr.
Shop Manager
John's Island Club West
Vero Beach, Fla.

GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

REACH

TARGET

SCHEDULE

The Asia-Pacific connection for suppliers to the golf course industry.

Over 6,000 decision makers at golf facilities throughout the Asia-Pacific region, including Australia & New Zealand.

Course Managers, Directors, Owners, Developers, Architects & Superintendents.

May, September and November 1996.
May 1996 closing: April 19th.

Contact us today! Tel: (207) 846-0600 • Fax: (207) 846-0657

In the U.S., contact
Charles von Brecht, Publisher
Golf Course News Asia-Pacific
P.O. Box 997, 38 Lafayette Street
Yarmouth, ME 04096
Tel: (207) 846-0600
Fax: (207) 846-0657

Golf industry, environmental community issue principles

Ed. — The following document, "Environmental Principles for Golf Courses in the United States," was presented at the second conference on Golf & the Environment, held March 10-12, 1996, in Pinehurst, N.C. Excerpts appear below. For a complete copy of the "Principles," contact the Center for Resource Management at 801-466-3600, or your allied association.

A. PLANNING AND SITING

1. Developers, designers and others involved in golf course development are encouraged to work closely with local community groups and regulatory/permitting bodies during planning and siting and throughout the development process. For every site, there will be local environmental issues and conditions that need to be addressed.
2. Site selection is a critical determinant of the environmental impact of golf courses. A thorough analysis of the site or sites under consideration should be completed to evaluate environmental suitability. It is very important to involve both the designer and a team of qualified golf and environment professionals in this process.
3. Based on the site analysis and/or regulatory review process, it may be determined that some sites are of such environmental value or sensitivity that they should be avoided. Other less environmentally sensitive or valuable sites may be more suitable or even improved by the development of a golf course if careful design and construction are used to avoid or mitigate environmental impacts.
4. The presence and extent of some types of sensitive environments may render a site unsuitable or, in some cases, less suitable for golf course development. Examples include, but are not limited to:
 - Wetlands
 - Habitat for threatened or endangered plant or animal species
 - Sensitive aquatic habitats
5. There may be opportunities to restore or enhance environmentally sensitive areas through golf course development by establishing buffer zones or by setting unmaintained or low-maintenance areas aside within the site.
6. Golf course development can be an excellent means of restoring or rehabilitating previously degraded sites (e.g., landfills, quarries and mines). Golf courses are

also excellent treatment systems for effluent water and use of effluent irrigation is encouraged when it is available, economically feasible, and agronomically and environmentally acceptable.

B. DESIGN

1. When designing a golf course, it is important to identify existing ecosystems. Utilizing what nature has provided is both environmentally and economically wise. Emphasizing the existing characteristics of the site can help retain natural resources, allow for efficient maintenance of the course and will likely reduce permitting and site development costs.
2. A site analysis and feasibility study should be conducted by experienced professionals. The identification of environmentally sensitive areas and other natural resources is important so that a design can be achieved that carefully balances environmental factors, playability, and aesthetics.
3. Cooperative planning and informational sessions with community representatives, environmental groups and regulatory agencies should be part of the initial design phase. Early input from these groups is very important to the development and approval process. This dialogue and exchange of information should continue even after the course is completed.
4. Native and/or naturalized vegetation should be retained or replanted when appropriate in areas that are not in play. In playing areas, designers should select grasses that are best adapted to the local environmental conditions to provide the necessary characteristics of playability yet permit the use of environmentally sustainable maintenance techniques.
5. Emphasis should be placed upon the design of irrigation, drainage and retention systems that provide for efficient use of water and the protection of water quality. Drainage and stormwater retention systems should, when possible, be incorporated in the design as features of the course to help provide for both the short- and long-term irrigation needs of the maintained turf and the unmaintained areas of the course.
6. Water reuse strategies for irrigation should be utilized when economically feasible and environmentally and agronomically acceptable. It is important that recycled water meets applicable health and

The following organizations have, at the time of publication, endorsed the "Environmental Principles for Golf Courses in the United States."

- American Society of Golf Course Architects
- Arizona Golf Association
- Audubon International
- Center for Resource Management
- Club Managers Association of America
- Friends of the Earth
- Golf Course Builders Association of America
- Golf Course Superintendents Association of America
- Ladies Professional Golf Association
- National Club Association
- National Coalition Against the Misuse of Pesticides
- National Golf Foundation
- National Wildlife Federation
- North Carolina Coastal Federation
- Pamlico-Tar River Foundation
- Save the Bay
- Southern Environmental Law Center
- United States Environmental Protection Agency
- United States Golf Association

environmental standards and that special consideration be given to water-quality issues and adequate buffer zones. Water reuse may not be feasible on some sites that drain into high quality wetlands or sensitive surface waters. Suitable soils, climatic conditions, groundwater hydrology, vegetative cover, adequate storage for treated effluent and other factors will all influence the feasibility of water reuse.

7. Buffer zones or other protective measures should be maintained and/or created, if appropriate, to protect high quality surface water resources or environmentally sensitive areas. The design and placement of buffer zones will vary based on the water-quality classifications of the surface waters being incorporated into the course. Regulatory agencies and environmental groups can assist in the planning of buffer zones.
8. Design the course with sustainable maintenance in mind. The design should incorporate Integrated Plant Management and resource conservation strategies that are environmentally responsible, efficient, and cost effective. Integrated Plant Management includes integrated pest management and emphasizes plant nutrition and overall plant health.
9. The design of the course should enhance and protect special environmental resource areas and when present, improve or revive previously degraded areas within the site through the use of plants that are well adapted to the region. Seek opportunities to create and/or preserve habitat areas that enhance that area's ecosystem.

C. CONSTRUCTION

1. Use only qualified contractors who are experienced in the special requirements of golf course construction.
2. Develop and implement strategies to effectively control sediment, minimize the loss of topsoil, protect water resources, and reduce disruption to wildlife, plant species and designated environmental resource areas.
3. Schedule construction and turf establishment to allow for the most efficient progress of the work while optimizing environmental conservation and resource management.
4. Retain a qualified golf course superintendent/project manager early in the design and construction process(es) to integrate sustainable maintenance practices in the development, maintenance and operation of the course.

D. MAINTENANCE:

Plant protection and nutrition

1. Employ the principles of Integrated Plant Management (IPM), a system that relies on a combination of common sense practices of preventing and controlling pests (e.g., weeds, diseases, insects) in which monitoring is utilized to identify pests, damage thresholds are considered, all possible management options are evaluated and selected control(s) are implemented. IPM involves a series of steps in the decision-making process:

a. Through regular monitoring and record keeping, identify the pest problem, analyze the conditions causing it, and determine the damage threshold level below which the pest can be tolerated.

b. Devise ways to change conditions to prevent or discourage recurrence of the problem. Examples include: utilizing improved (e.g. drought-resistant, pest-resistant) turfgrass varieties, modifying microclimate conditions, or changing cultural practice management programs.

c. If damage thresholds are met, select the combination of control strategies to suppress the pest populations with minimal environmental impact, to avoid surpassing threshold limits. Control measures include biological, cultural, physical, mechanical, and chemical methods. Biological control methods must be environmentally sound and should be properly screened and tested before implementation.

d. Non-chemical control measures should focus on practices such as the introduction of natural pest enemies (e.g. parasites and predators), utilizing syringing techniques, improving air movement, soil aeration techniques, and mechanical traps. The selection of chemical control strategies should be utilized only when other strategies are inadequate.

When chemical and nutrient products need to be applied the following practices should be utilized:

1. Always read and follow label directions when using any plant protectant products. Strive to treat problems at the proper time and under the proper conditions to maximize effectiveness with minimal environmental impact. Spot treatments may provide early, effective control of problems before damage thresholds are reached.
2. Store and handle all pest control and nutrient products in a manner that minimizes worker exposure and/or the potential for point or non-point source pollution. Employ proper chemical storage practices and use suitable personal protective equipment and handling techniques.
3. Use nutrient products and practices that reduce the potential for contamination of ground and surface water. Strategies include: use of slow-release fertilizers, selected organic products, and/or fertigation.
4. Test and monitor soil conditions regularly and modify practices accordingly. Choose nutrient products and time applications to meet, not exceed, the needs of the turfgrass.
5. All plant protectant products should only be applied by or under the supervision of a trained, licensed applicator or as dictated by law.
6. Maintain excellence in the continuing education of applicators (including state licensing, professional association training and IPM certification). Training for non-English speaking applicators should be provided in the worker's native language.
7. Facilities should inform golfers and guests about golf course chemical applications. Common methods include permanent signs on the first and tenth tee boxes and/or notices posted in golf shops and locker rooms.

Water usage

1. Use native, naturalized or specialized drought-tolerant plant materials wherever

possible. For areas in play (greens, tees and fairways), using plant materials that are: well-adapted to local environmental conditions; can be efficiently managed; and provide the desired playing characteristics.

2. Plan irrigation patterns and/or program irrigation control systems to meet the needs of the plant materials in order to minimize overwatering. When feasible, use modern irrigation technologies that provide highly efficient water usage. Inspect systems regularly for leaks and monitor water usage.

3. Water at appropriate times to minimize evaporation and reduce the potential for disease.

4. Consider converting to effluent irrigation systems when available, economically feasible and agronomically and environmentally acceptable.

5. Manage water use effectively to prevent unnecessary depletion of local water resources.

Waste Management

1. Leave grass clippings and other organic materials in place whenever agronomically possible. If clippings are removed, compost and, if possible, recycle them.

2. Dispose of chemical rinsate in a manner that will not increase the potential for point or non-point source pollution. Methods include rinsate recycling or "spraying out" diluted compound in previously untreated areas.

3. Dispose of chemical packaging according to label directions (e.g. triple rinsing, recycling or returning to manufacturer).

4. Other waste products, such as used motor oil, electric batteries and unused solvents, should be recycled or disposed of according to the law and available community disposal techniques.

5. Seek to reduce waste by purchasing products that minimize unnecessary packaging.

Wildlife Management

1. Habitat for wildlife species that help control pests (e.g., bats, bluebirds, purple martins, etc.) should be protected. Additional habitat for these beneficial species should be created whenever feasible and environmentally desirable.

2. Manage habitat to maintain healthy populations of wildlife and aquatic species.

3. Species such as skunks, non-migratory Canada geese, and deer, when they become damaging, should be managed through non-harmful means whenever possible. Non-harmful control methods could include dogs, noisemakers, repellents, and trapping and removal. Managed hunting may be appropriate where legal and safe.

Facility Operations

1. Facilities should conduct an environmental assessment in order to develop and implement an overall environmental policy and/or long-range plan that reflects or expands upon these principles.

2. Maintain ongoing records to measure and document progress towards environmental improvement.

3. The environmentally responsible practices adopted for the maintenance of the golf course should extend to all areas of the overall facility grounds.

4. Facilities should adopt practices and technologies that conserve natural resources, including water and energy.

5. Facilities should develop and initiate comprehensive programs for recycling, reuse and waste reduction.

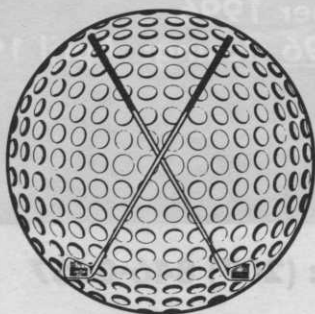
6. Facilities should properly store and dispose of solvents, cleaning materials, paints and other potentially hazardous substances.

7. Facilities are urged to join programs that help to foster effective environmental management and policies.

8. Facilities should take active steps to educate golfers, neighbors and the general public about their environmental policies and practices.

Formost Construction Co.

Serving the nation for over 30 years.



IRRIGATION SPECIALISTS

"Doing One Thing Well"

STATE LIC. #267960

P.O. BOX 559

TEMECULA, CALIFORNIA 92593

(909) 698-7270

FAX (909) 698-6170

BRIEFS



EPA STARTS ENVIRONMENTAL SERVICE

WASHINGTON — The U.S. Environmental Protection Agency has unveiled a new service to help the public access environmental information. The Government Information Locator Service (GILS) is an electronic service through the Internet that provides a decentralized location to anyone who needs to locate, access or acquire government information. GILS is available on the world wide web at <http://www.epa.gov/gils>.

MECHLING IS OHIO MAN OF YEAR

COLUMBUS, Ohio — The 29th Annual Ohio Turfgrass Foundation Regional Conference and Show was highlighted by presentation of the Man of the Year Award to Paul Mechling of Heather Downs Country Club in Toledo. John Fanning was honored for Professional Excellence, while Dr. Jim Beard and Doug Halterman were given special recognition and Gene Probasco was presented an honorary lifetime membership.



E/T EQUIPMENT BACKS DELHI

DELHI, N.Y. — A major distributor of turfgrass products has donated two new state-of-the-art mowers to the golf education program at the State University College of Technology at Delhi. E/T Equipment Co. of Croton has supplied the Delhi College Golf Course with a John Deere fairway mower and walk-behind greens mower, according to Delhi's Dominic Morales.

CANADIANS SUPPORT AUDUBON

HALIFAX, N.S. — The Royal Canadian Golf Association (RCGA) has awarded \$75,000 to the Canadian Turfgrass Research Foundation to continue its turfgrass and environmental research projects, while Audubon International received \$31,000 to fund a separately run Canadian office that will be instrumental in protecting the environment's relationship with golf courses.



RUTGERS' ROYALTIES ADDING UP

SOMERSET, N.J. — Jon Loft, president and CEO of Lofts Seed, and Dr. Richard Hurley, Lofts' director of research and professional sales, have presented Drs. C. Reed Funk, T. M. Casey and Bruce Clark of Rutgers University with a royalty check in the amount of \$713,150. To date, Lofts Seed, through the marketing of its turfgrasses, has contributed over \$3.5 million in royalties to Rutgers.

Cold stressed at the Maine turf conference

By MARK LESLIE

ROCKPORT, Maine — Hardening off cool-season turfgrasses is the most important factor in turf surviving a winter of freezing stresses, according to Dr. William Torello, turf program director at the University of Massachusetts at Amherst. Speaking at the Maine Turfgrass Conference and Show here March 7, Torello said superintendents should make every effort to accumulate volumes of carbohydrates within the turf plant. Higher carbohydrate levels mean less internal ice

crystal formation — "the kiss of death" — within the plant, he said.

Torello told superintendents to enhance the hardening process by:

- Increasing mowing heights, which "does great things for you. Even if you only bring it up 1/8 inch, it makes a big difference because you have increased leaf area and green tissues, which means higher carbohydrate production during the fall, increased storage, and increased concentration of stored carbohydrates in the crown which is going to give you a

much better-prepared turf."

- Decreasing or eliminating soluble nitrogen (N) applications as the fall progresses. "Make no N applications after Oct. 15 — earlier in Maine," he warned. "How does nitrogen interfere with the hardening process? The more N picked up by the plant, the more protein it makes. Protein is made by taking carbohydrate and attaching ammonium nitrogen to it. It takes away carbohydrate." Dormant applications are an exception, he said.

Continued on page 19

Determined: All sprinklers are not 'created equal'

By AL KLINE, CGCS

Technical advances in irrigation equipment closely parallel the rapid gains made in all areas of turf management. Today, many of us think most, if not all, mysteries have been solved and maybe things have become a bit ho-hum. Yet, why do we continue to be plagued with "localized dry spot," wet areas, dry areas (that require continual attention from "hot spot" or "sponge" crews), less-than-acceptable results from pesticide and fertilizer applications, black layer, and just plain old-fashioned non-uniform turf.

Well, howdy to the real world where so many of us are frustrated and looking for answers. Indeed, a few people think sprinklers may be the key to solving the unsolvable and should be put under the old magnifying glass!

That's what we did at the University of New Mexico Championship Golf Course. Tim Cavellier, a local Toro irrigation specialist, and I built what appears to be the best outdoor sprinkler test stand in the world and are using the SPACE (Sprinkler Profile And Coverage Evaluation) computer program for sprinkler head evaluation as produced by The Center for Irrigation Technology at California State University-Fresno. Key players at CIT whom we have worked with, and are indebted to, are Dr. Ken Solomon, Dave Zoldoski and Joe Oliphant.

Continued on page 26



Tim Cavellier (left) and Jim McPhilomy are shown in 1990 making a practice run on the PITOT PSI test soon after the test stand was activated.

The play's the thing, say supers who hit the links

By PETER BLAIS

All superintendents may not play as much or as well as Jim Dusch of Atlanta National Golf Course in Alpharetta, Ga.

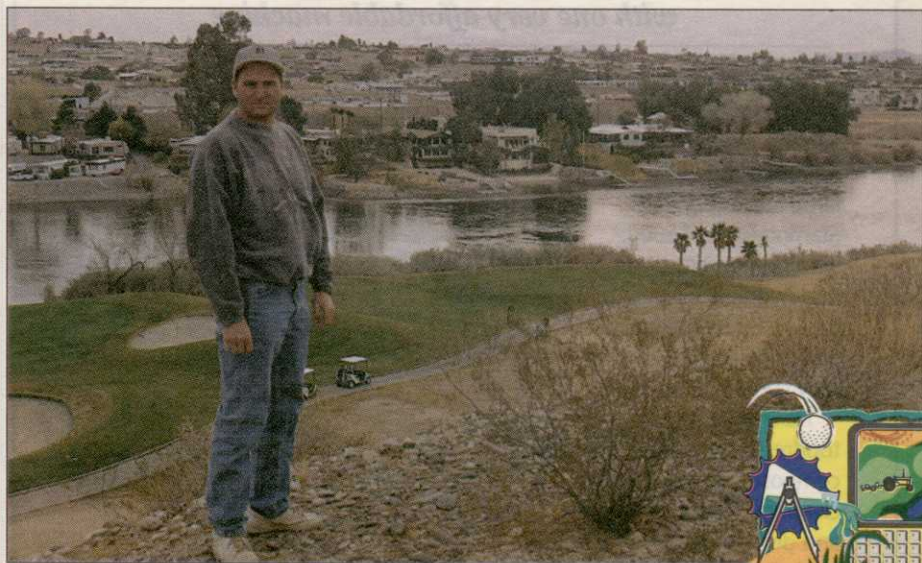
"But it's hard to see how you can do this job and not play the game," said Dusch, winner of this year's GCSAA Championship and a self-described 1-handicap player. "My goal is to get the course to the point where it is agronomically sound and playable in my eyes."

Dusch tries to play his course at least once a week. He watches how the ball rolls on the greens, how bunkers are raked and how worn the tees are as both a superintendent and a golfer.

"You don't have to be a great golfer," he said. "But you should know what the course looks like to the people playing your course. Playing helps you understand what is good and what is bad from the player's perspective. I'm not saying someone who doesn't play can't have a great course. But it would be tougher if you weren't a player."

Charles Passios, head superin

Continued on page 25



Jay Long pauses above one of Emerald River's most picturesque holes. The Colorado River flows in the background.

ON THE GREEN

Beating the water woes in Nevada

By ALTON PRYOR

LAUGHLIN, Nev. — Emerald River Resort and Country Club stretches for four miles along the Colorado River where it is carved out of rough and unforgiving desert. Built in 1989 on 380 acres of desert base, it requires huge amounts of water to cope with high summer temperatures. For golf course superintendent Jay Long, water is his biggest concern. Even though he pumps from the giant Colorado River, flowing only a fairway from the course, water is an expensive commodity and Long has had to discover ways to reduce that expense.

"We pump out of the river, but cost for water is very high," Long said. "I'm budgeted \$250,000 a year for water and that isn't enough. We are charged \$1.94 per thousand gallons, which is the residential rate, and there are meters on the pumps to make sure we don't cheat. When the courts broke up the water rights among the states on the Colorado River, Nevada didn't get a very big share."

Long said he applies about 50 acre feet per year to his green areas — about 75 acres. During the summer, when temperatures soar to as high as 125 degrees,

Continued on page 28

Esposito proves it's a lady's world as well

By MARK LESLIE

HINCKLEY, Ohio — She rejected a career in teaching, now she is teaching young greenkeepers. She didn't do well in public speaking, now she is serving a second term as president of the Northern Ohio Golf Course Superintendents Association. Some may think Hinckley Hills Golf Course superintendent Jean Esposito's life is an enigma.

Here's a woman who entered the business with no knowledge of agronomy, but who now travels each year to local and national conferences, even to England for week-long studies with the British International Golf Greenskeepers Association ... who, despite her gender, does "not feel like I'm in a minority" ... who, with her sister, Sue, operate their family course and employ their husbands.

An enigma? Esposito has quite another opinion.

"I grew up doing this job," she said. "When I graduated [from college in 1971] I returned and just kept going at it. It seemed natural."

Esposito "grew up doing the job" be-



The practice range at Hinckley Hills Golf Course cared by the touch of Jean Esposito.

cause her parents (Donald and Bee Krush), an aunt, an uncle and a third couple had turned the family farm into two 18-hole golf courses that opened in 1964, when she was in junior high school. (The neighbors later assumed ownership of the second course.)

"In a family business the family works, or the business doesn't survive. To me, it was like a household chore — only I rarely stayed inside the clubhouse," she said. Instead, as a teen Esposito "dug ditches, laid tile, and picked rocks — my most dreaded job. I also learned how to drive a dump truck and tractor."

Now, with 30 years experience under her belt, she manages five full-time employees — including husband Mark, who is her assistant and mechanic, plus nephews Donald, 23, and Michael, 19. Her staff swells to 10 in the summer.

The first woman in the country to be president of a chapter of golf course superintendents, she is devoted to improving her own education as well as that of the 320-member Northern Ohio chapter.

She was enticed to travel to Great Britain in 1984 when an American group took a tour and attended a program organized by the English and Scottish greenkeepers association, which later merged into BIGGA. She has repeated that trip the past four years.

Why? "We felt they have so much to offer us," Esposito said. "Theirs is a little bit different look at the profession. How do they cope with stringent water and pesticide regulations, and which of their practices might we copy to lessen our usage? When you lessen your usage you lessen your cost and contamination possibilities."

Superintendents' problems are "basically the same" all over the world, she said. And yet, grass types may vary and "because the weather conditions are different, the demands on them are different... Some of their restrictions are unbelievable. An English friend of ours is in Austria and they won't allow him to put a colorant in the lake."

Home in Northern Ohio — where she was first elected chapter president in 1987, and again in 1995 for a term that ends in November — she has championed association involvement and education. Much has changed in those eight intervening years, she said.

"The job has become more demanding all the way across," she said. "It's not just a local thing... There is a great deal going



on with the national association (with the bylaw and affiliation agreements). And because of the legal requirements, more paperwork is involved today."

The Northern Ohio association is "very close," Esposito said. "Northern Ohio members are very good at helping one another, sharing problems, helping to avoid pitfalls... When there was an atrazine contamination problem a few years ago, we had such a networking effort that within two days everybody in our area knew about it."

Of course, nowhere is the association "closer" than at Esposito's own golf course. Whereas many superintendents face the problem of long hours away from home and family, Jean Esposito's husband can relate to her better than most spouses. He works alongside her.

"Mark understands what I'm going through because he's physically here with me," she said. "So many times, unfortunately, the wife is home with the children and doesn't know what her husband's doing. She simply knows he's not home when maybe she needs him. It's always been real important if the spouse can be involved to some degree in their work. Otherwise, it can put a lot of stress on a marriage because we do have long hours. I know a lot of guys who take their children with them to water their course and that gives their wives a break."

Being part of a family-owned operation has other pluses, she said.

"I have [maintenance] options that country clubs do not have. They have more demands from their members, asking for faster greens, etc. Our customers see grass growing, good color and it putts well and they're happy with that. So it's our decision rather than theirs as to how to care for it."

"We also have the option that they don't at a members' club, where, if a member does something wrong out on the course, you have to go through a committee to correct them. On our course we can just tell a golfer, 'We don't do that sort of thing here — no racing a golf cart down a hill.' You can do that very politely, and eliminate some of the people who are detrimental to your course."

Also, when you're the owner and face such killer summers as 1995 or 1991, there is no fear of being fired, as happened to so many superintendents.

Spreads More, Costs Less

Now you can topdress and spread organic materials with one very affordable machine

The mid-sized Millcreek Topdresser/Spreader is more versatile than greens-only topdressers, 1/3 the price of large-area topdressers. Starting under \$6000,* it's a no-nonsense, non-hydraulic workhorse that's easy to operate, and as reliable as they come.

Now you can topdress, plus spread compost, disperse clippings, fill bunkers, break and disperse aeration plugs, apply lime, wood chips and more - all with one affordable machine. More and more superintendents are finding the smaller Model 50 ideal for tees and greens because it has just 14.6 psi. The spread pattern adjusts from 3' to 10'.

As one delighted superintendent says, "There's nothing else like it."

No question. Dollar for dollar, the Millcreek Topdresser/Spreader is your best value for all-around spreading versatility. You'll wonder how you ever got along without it.



Millcreek's patented "PowerBrush" action and adjustable directional fins enable you to spread almost any flowable material in paths from 3' to 10' wide. A single operator needs no tools for safe, easy adjustments. PTO or engine-drive. 2 cu. yd. capacity.

*Plus freight and set up.

Topdresses and spreads all kinds of organic material. Two PTO models, from 1 to 2 cu. yd.



Call today for the name of the dealer nearest you.

MILLCREEK
MANUFACTURING CO.

1-800-879-6507

FAX: (717) 355-2879

Bird-in-Hand, PA 17505

YOUR "ONE-STOP" SOURCE
FOR AMERICA'S LEADING
GOLF SURFACES & SUPPLIES!

PARTAC
GOLF COURSE
TOP-DRESSING



HEAT TREATED
FLEXIBLE GOLF COURSE MARKERS
TURF DRAG MATS & BRUSHES
SAFETY FENCING & BALL NETTING

TYPAR

GEOTEXTILES & TURF BLANKETS

Terra-Green

THE POROUS CERAMIC
SOIL CONDITIONER

NEW PARTAC
COLORED CERAMIC
GREEN SAND
DIVOT REPAIR MIX
PARTAC GREEN SAND BLENDED
WITH PARTAC PREMIUM
TOP-DRESSING FOR EXCELLENT
GERMINATION AND
DEEP GREEN COLOR!

THE BEST DIVOT REPAIR MIX AVAILABLE!

AVAILABLE NATIONWIDE

800-247-2326
IN N.J. 908-637-4191

PARTAC PEAT CORPORATION
KELSEY PARK, GREAT MEADOWS, N.J. 07838
ORLANDO (FL) MEMPHIS (TN) RENO (NV)

HIGHLIGHT GOLF HOLES,
IMPROVE VISIBILITY,
& MAINTAIN CONSISTENCY

U.S. GOLF HOLE
TARGETS



ACCU-TECH
PRECISION CUP CUTTERS

TerraFlow
Drainage Systems

AND MANY MORE
GOLF SPECIALTY PRODUCTS

Maine turf talk

Continued from page 17

- Increasing potassium (K) applications, generally using an application rate of 1:3 N:K, to lower water-potential levels.
- Reducing irrigation.
- Using turfgrass species and cultivars that start the hardening process early. "Grasses that start hardening off in early September versus those that start in early October are going to have a foothold, able to accumulate more carbohydrates," he said. "For instance, ryegrasses generally don't start to harden until October, whereas bluegrasses begin in September, so blues have much more potential to resist freezing stress."

Cool-season grasses adapt to cold areas because of the natural process called hardening off — which allows them to get ready for the cold, freezing temperatures, Torello said. The external changes are decreased shoot growth and deeper green color. The more important internal changes are an increase or peak in photosynthesis, a decrease in overall respiration rate (the use of carbohydrates as energy for growth or just to stay alive), and accumulation of high levels of reserve carbohydrates in crown tissues.

Most important are the carbohydrate levels in the crown, since high levels reduce water potential. Less water means lower temperatures to freeze those tissues, he said.

Because the plant lives off reserve carbohydrates during the winter, "the more energy stored during the fall, the better off the plant will be," Torello said. "Photosynthesis is very slow, if at all, in the winter. Respiration must continue, albeit slowly."

The two major types of freezing stress are direct ice crystal formation inside the cell, which he said seldom happens but is "the kiss of death" when it does; and indirect ice crystal formation, which occurs when ice forms between cells within the dormant crown.

"This occurs in all cool-season turfs at the onset of freezing temperatures," Torello said. "This causes extreme drying of cells. The net effect is actually drought stress."

"If the cells are well hardened, with a lot of carbohydrates, the turf is more resistant to indirect freezing stress injury."

...

Citing ice-cover injuries and stress as another turf killer, Torello suggested that superintendents faced with this situation punch holes or crack the ice at 1- to 3-foot intervals; apply dark granular organic materials which absorb heat and form holes in the ice; or combine the two methods.

"The injury to the turf is due to lack of gas exchange," he said, which cuts off oxygen and builds up hydrogen cyanide and carbon dioxide.

By PATRICK O'BRIEN

It is very difficult to detect the viability of dormant and overseeded Bermudagrass after extreme cold temperatures. Superintendent David Stone at The Honors Club has used a technique for many years that he learned from Dr. A.J. Powell at the University of Kentucky to determine the winter survivability of his Bermudagrass areas.

A plug removed from sites that typically are susceptible to winter damage can be assayed quickly using the following method:

- Use a 4-inch cup cutter to remove a Bermudagrass plug from a "protected" and "unprotected" area for comparison purposes.

A test for dormant Bermudagrass

- Wash off the soil from the plug and remove the old dormant top growth.
- Expose the rhizomes and stolons by pulling the plug apart.
- Place the separated rhizomes and stolons in a Ziplock clear plastic bag, along with a wet paper towel.
- Place the sealed bag in a window or under a grow lamp.
- Create "instant summer" by maintaining a temperature near 90 degrees.
- Rewet the paper towel as needed to keep

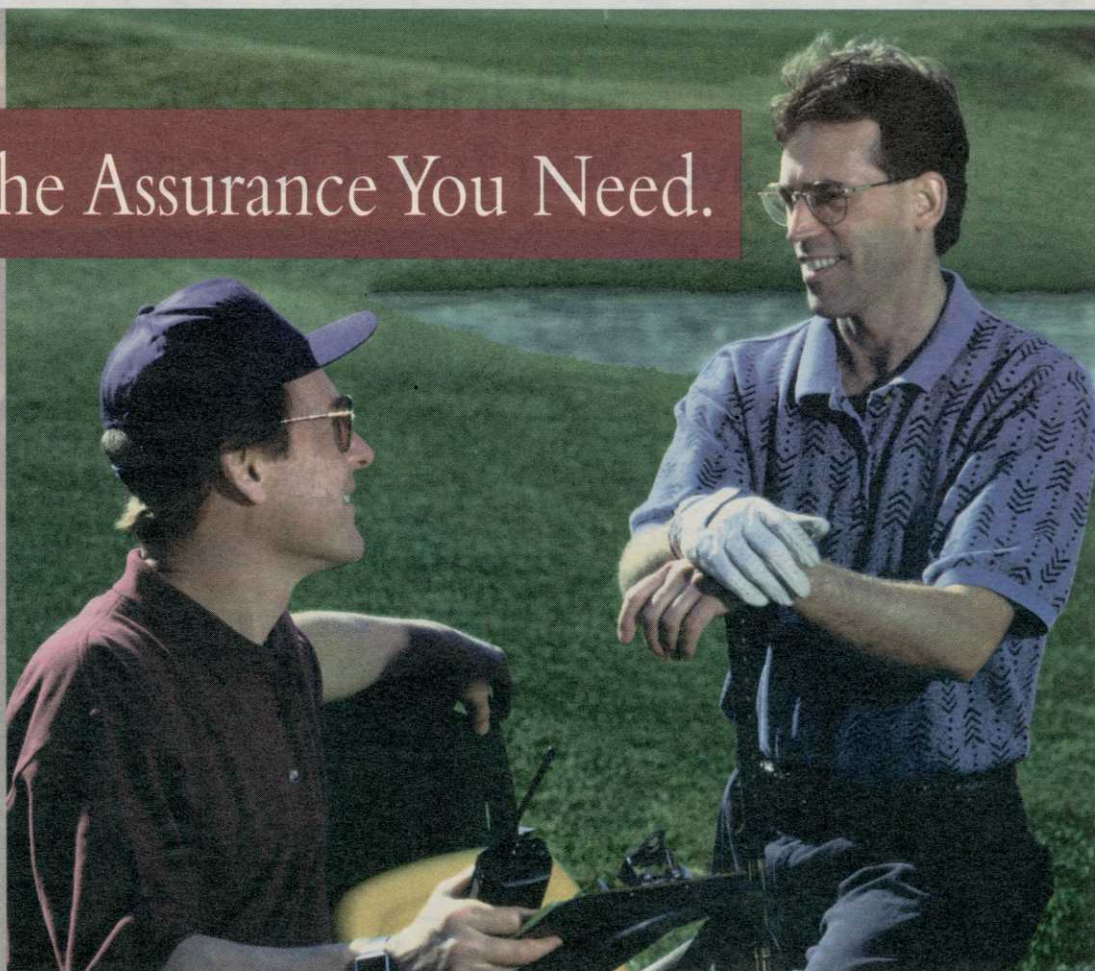
the rhizomes and stolons from drying.

- Within two to five days, green-up of the winter-surviving tillers should happen.

"This essay method will take much longer if you leave the plug intact," according to Powell. Powell usually samples sites prone to winter injury during January, mid-February, and early March with this technique. Late-winter sampling will help a superintendent determine if late freezes affected the Bermudagrass.

Correlation over the last two years with spring green-up has been 100 percent with this method. According to Powell, this test is also valid to check the viability of zoysiagrass, but it takes a few days longer for the results because of zoysia's slower growth rate.

All the Assurance You Need.



SCIMITAR® GC. AN INSECTICIDE YOU CAN TRUST.

Trust SCIMITAR GC to give you the control you need on your grounds and the confidence you demand for your golfers. With advanced pyrethroid technology, SCIMITAR GC offers a new tool for the turf manager. Specially formulated for golf courses, SCIMITAR GC delivers both fast-action and extended-release control at incredibly low use rates. It goes after a variety of tough turf and ornamental insects, including chinch bugs, mole crickets and sod webworms. And it never leaves an annoying odor.

For the optimal control you need and the confidence you demand, trust SCIMITAR GC on your grounds.

For more information, contact your Zeneca representative, or call 1-800-759-2500.



Scimitar
INSECTICIDE
GC

ZENECA Professional Products

Always read and follow label directions carefully. SCIMITAR GC is a restricted use pesticide. SCIMITAR® is a trademark of a Zeneca Group Company. ©1996. Zeneca Inc. A business unit of Zeneca Inc.

Biological fungicide believed to be new foundation for disease control

By WANDA J. GARDNER
& SANDRA E. KOWALLIS

Turfgrass managers have a new biological option for their integrated plant management programs following the federal Environmental Protection Agency's (EPA) approval of *Trichoderma harzianum*, the first biological turf fungicide.

Developed by a team of Cornell University researchers, a hybridized strain of *Trichoderma harzianum*, designated T-22, is the active ingredient in Wilbur-

Ellis Co.'s EPA-approved Bio-Trek 22G.

T-22 is a living organism that is dormant in dry granular form. Mixed with a carrier in appropriate particle size and density, it is formulated in several sizes and can be spread over turf using standard granular application equipment.

The product is applied at a fixed rate of 1.5 pounds per thousand square feet. Repeat applications can be 2 to 4 weeks later in soils with chemical residues

or poor growing conditions.

Upon application to turf, T-22 is designed to fall into the thatch layer where natural moisture is usually enough to activate the organisms. However, watering in ensures full activation.

The organisms progress down into the soil where they form a symbiotic relationship with the plants.

Aggressively colonizing the root surfaces, they grow as microscopic filaments about the consistency of a spider web and

produce spores so they can survive when they are not growing in vegetative plant form. The colony continues to involve all new root growth throughout the life of the plant, feeding on the various materials that exude from the plant roots.

The biological fungicide is designed to renew itself right where it is needed — on the root surface. When pathogens — such as *pythium*, *rhizoclonia solani*, *sclerotinia homeocarpa*, or *fusarium* — attempt to move in,

T-22 defends its home and food source. It extends branching structures to entwine the hypha of its competition, drills into the hypha, and secretes an enzyme to kill the pathogen, which then decomposes in the soil.

The T-22 organisms prefer neutral or slightly acidic soil. However, they will thrive in normal soil pH ranges suitable for turf, even in somewhat alkaline soil.

Because they are sensitive to soil temperature and grow faster above 50 degrees F., populations may decrease through winter.

By applying the biological fungicide to well-established turf as soils begin to warm and turf begins its seasonal growth, an established colony can be settled in to reduce the number of infection points and delay onset of disease.

When planting new turf or re-seeding, the granules are applied to the top 1-inch of soil. Organisms colonize new roots as soon as seeds sprout and form a shield against *pythium*, so tender plants put all their energy into growth.

Turf plots, some treated with T-22 and some without, were monitored by Cornell University scientists.

T-22-treated plots showed 20 percent less severity of *sclerotinia homeocarpa* after a 60-day period, and its early use avoided a 33-day delay in beginning treatment.

In similar tests, *pythium* levels measured in soil planted to bentgrass were significantly lower in the sample treated with T-22.

While the biological fungicide provides early defense against invading pathogens and, therefore, reduces appearance of surface symptoms, evidence of disease may eventually surface. At that point, chemical sprays should be applied.

However, usage will be reduced because of the early work of the biological fungicide.

Pathogens can develop chemical mechanisms to avoid toxicity of chemical products, requiring increased usage that can cause chemical build-up in soil. That is not the case with the biological fungicide, which has no side effects.

In a wide variety of conditions, this product passed all the EPA-required tests for toxicity, pathogenicity, and effects on wildlife and the environment, posing no threat to humans, plant life, animals, or ground water.

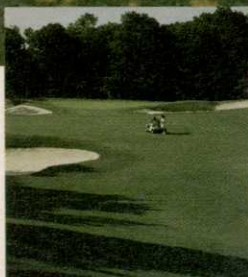
Consequently, the EPA exempted T-22 from the requirement for residue tolerances, even on food crops. However, proper handling procedures must be followed, such as avoiding inhalation of dust during application.

Wanda Gardner and Sandra Kowallis are technical writers with Image and Sales Promotions in Fresno, Calif

Pythium Gives You Two Choices.

Pull out your hair.

Prevent it with Banol.



There's one sure way to stop a pythium problem. Banol® Fungicide. Because Banol controls the three forms of pythium in all types of turf. It controls blight as well as crown and root rot in established turf, plus damping-off in newly seeded areas. Banol

can be sprayed when overseeding without harming germinating seedlings. In fact, its performance has been proven to be outstanding as both a preventative and a curative, with no damage to turf. Banol shows no signs of resistance development, either. So don't let ugly, balding patches scalp you. Stop pythium right down to the roots—with Banol.

Banol
FUNGICIDE

AgrEvo
A company of Hoechst and NOR-AM

Read and follow label directions carefully. AgrEvo USA Company, Wilmington, DE 19808 ©1996

CIRCLE #116

GOLF COURSE NEWS

COLUMBIA, Md. — Golf course superintendents who've successfully used a biological control material to combat mole crickets have discovered an additional benefit to using the product: They are getting significant suppression of the sting nematode, *belonolaimus longicaudatus*, as well.

Native to the Southeast, the sting nematode thrives in sandy soil under warm temperatures. It has a cosmopolitan appetite for nearly all agricultural and horticultural crops. Golf course superintendents in this region have been battling it for years and, recently, the pest has been discovered at 11 golf courses in California's Coachella Valley.

The biological control material showing activity against the sting nematode is a beneficial nematode, *Steinernema riobris*, sold under the trade names Vector MC (from Lesco, Inc.) and Devour (from United Horticultural Supply). *S. riobris* is an entomopathogenic, or insect-killing, nematode with low environmental impact in sensitive areas such as pond and lagoon banks, or near clubhouses and homes on golf courses.

S. riobris has been developed and commercialized by biosys Inc., a biological pest control company based here. Researchers have not yet discovered exactly how *S. riobris* suppresses plant parasitic nematodes (PPN) such as the sting nematode. They only know that it shows positive results in commercial and research trials.

One researcher, Dr. Bruce Martin, turfgrass plant pathologist at Clemson University in Florence, S.C., has been evaluating the efficacy of the beneficial nematode against sting nematode. Preliminary results of these trials show that "suppression is occurring" and that

Biological mole cricket control also checks sting nematode

"there is a linear response with higher use rates," he reported.

Last year, Martin tested both the liquid and the water-dispersible granule (WDG) formulations applied at rates from 0-6 billion nematodes per acre (the label calls for 2 billion per acre).

"In this trial, the more we put on, the greater suppression of sting nematode we got," Martin said. "We were cutting the numbers [of sting nematodes] in half with progressively higher use rates, which was a significant regression."

Martin points out that golf course superintendents and other turfgrass professionals are in need of alternative materials to combat nematodes. Standard nematicides are limited in efficacy, and can't be used in environmentally sensitive areas. "We are still looking for alternatives [to standard materials]. With this *riobris* nematode, it looks like we have one," he said.

The economics of using the beneficial nematode against sting nematodes are favorable as well. The 2-billion-per-acre rate of Vector MC or Devour cost about \$140-\$145, according to the manufacturer.

Dr. Leon Stacey, a consultant to golf courses in Florida, Georgia, and South Carolina, has been conducting commercial trials with *S. riobris* on plant parasitic nematodes in these states. He has made the observation that the beneficial nematode product "appears to be much more effective at suppressing plant parasitic nematodes (sting and root knot) when applied prior to or at the time that

PPNs reach their action threshold."

In the Southeast, the treatment threshold for sting nematode is 10 per 100 cc of soil. For root knot nematode, it is 80 per 100 cc of soil. Seasonal development depends on several factors, but age of a golf course is most significant, according to Stacey.

"On younger courses, there will be a gradual seasonal growth of PPNs that will spike in October," he said. "On older courses there will be three spikes — in May, July, and October — and it's not unusual to see counts of sting nematodes get as high as 250 per 100 cc on some older courses," he explains.

Under these conditions, superintendents must still rely on standard nematicides for suppression, Stacey said. "However, if you can make applications of *S. riobris* when counts are low, this will gradually bring about suppression of PPNs and you do see a visual improvement in turf quality in density and color," he said.

The first to discover sting nematode in California was Richard Sall, superintendent at Tamarisk Country Club in Rancho Mirage. He believes the pest has been in California for years, arriving in imported soil and sand, and

that the damage it has caused in turf has been misdiagnosed as moisture stress, *ataenius* grub damage, or poor spring transition.

Once he discovered the real problem, he began a treatment program with standard nematicides plus heavier overseeding and fertilization in trouble spots. And last March, he also applied *S. riobris* to a 5000-square-foot section where sting nematode pressure was exceedingly high.

"We applied the material at a rate of 3 billion per acre, and you could see the area where we sprayed," he reports. "In those areas, nematode counts went down by 30 to 50 percent."

This spring, Sall said he will continue experiments with *S. riobris*, making applications earlier in February before sting nematodes are active to see if he "can get a jump on them."

Both Martin and Stacey believe *S. riobris* will play an increasing role in nematode control programs. "I suspect it will be better as a preventive approach to nematode control," Stacey said. "But I also think it will fit well in an overall IPM program where you're trying to use all practices and methods of control."

"You might, for example, apply *S. riobris* in the spring when counts are gradually building, followed by a nematicide treatment in the fall. There may also be other options. Additional research will tell," he concluded.

1,500 supers have earned certification

A new record has been set by the Golf Course Superintendents Association of America (GCSAA) membership: more than 1,500 individuals have achieved the title of Certified Golf Course Superintendent (CGCS). The 1,500 mark represents approximately 22 percent of GCSAA's current class A and B membership.

First instituted in 1971, GCSAA's certification program recognizes outstanding and progressive superintendents. The CGCS designation indicates that the recipient has achieved high standards of professional excellence.

"The importance of our certification program is twofold," said GCSAA President Bruce R. Williams. "First is the education itself — staying informed about industry practices and developments, and

keeping that professional edge. Second is the acknowledgment by one's peers and others in the industry, that a commitment to quality has been made. I'm extremely pleased that the members of GCSAA have shown the self discipline and drive it takes to achieve this goal."

GCSAA's certification program will celebrate its 25th anniversary on Sept. 1. Over that time, requirements for certification have been modified to keep pace with changes in the industry. Currently, a sliding scale is used to balance on-the-job experience with educational requirements. To become certified, a candidate must have a minimum of three years' experience as a superintendent, be employed in that capacity and meet specific educational requirements of college credit or continuing education units.

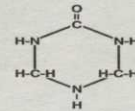
The candidate must then pass a rigorous six-hour examination covering knowledge of GCSAA and its certification program; the rules of golf; turfgrass management; pest control, safety and compliance; financial management; and organizational management. As part of the certification process, an on-site inspection of each superintendent's golf course operation is conducted by two certified golf course superintendents. Certification must also be renewed every five years.

BONITA BAY AUDUBON-CERTIFIED

BONITA SPRINGS, Fla. — Bonita Bay Club's three championship golf courses — Bay Island, The Marsh and Creekside — have been designated Certified Audubon Cooperative Sanctuaries by the Audubon Cooperative Sanctuary System, a program of Audubon International. The Bonita Bay Club courses are among the first seven golf courses in Florida and 55 in the nation to receive the honor.

AVOID THE WATER HAZARDS GETTING TO THE GREEN.

Fast-release N fertilizers leach nitrates and threaten groundwater. **N-SURE®** contains our patented, *non-burning* Triazone™ closed-ring formulation of slow-release nitrogen. That makes it a safer source of less volatile N for rich, lasting green color and *reduced environmental risk*. Apply N-SURE with **KTS®** for the highest levels of K plus S in any clear liquid fertilizer. Keep your game on the green — see your distributor today or call us at 1-800-525-2803.



Tessenderlo KERLEY

The Specialty Liquid Fertilizer People™

N-SURE and KTS are registered trademarks, and TRIAZONE is a trademark, of Tessenderlo Kerley, Inc. © 1996 Tessenderlo Kerley, Inc. 6/KA-2077/2



By MIKE KENNA

The U.S. Golf Association (USGA) will fund 10 putting green construction and maintenance projects over the next five years at a cost of \$870,000. The Golf Course Superintendents Association of America (GCSAA) will co-fund five of the projects.

The goal of the new research is to identify the best combinations of construction, grow-in procedures, and post-construction maintenance practices that prevent long-term problems, reduce environmental impacts, and produce high-quality playing surfaces.

Following is a brief summary of the projects.

• **Engineering Characteristics and Maintenance of Golf Putting Greens**, by Drs. James Crum and John "Trey" Rogers III at Michigan State University.

Why are some sands more stable than others? This project will investigate the physical properties of sands and establish relationships between strength and stability.

The secondary objective is to evaluate the short- and long-term effects of post grow-in maintenance practices on putting greens built by three different methods: USGA recommendations, a modified loamy sand over gravel, and an unamended loam soil.

• **Methods for Classifying Sand Shape and the Effects of Sand Shape on USGA-Specification Root Zone Physical Properties**, by Dr. Charles Mancino at Pennsylvania State University.

How does the shape (i.e., angular or round) of the sand affect green performance? This project will first develop a simple, inexpensive and quantitative procedure to give a reliable estimate of sand shape without having to examine individual sand grains.

The effect of sand shape on the physical properties of root-zone sands and whether the particle size distribution needs modification due to differences in sand shape will then be examined.

• **Layers in Golf Green Construction**, by Dr. Stephen Baker at Sports Turf Research Institute.

Can the conditions for the removal of the intermediate layer be less stringent?

The migration of particles and water retention will be closely examined where the root-zone layer directly overlays the gravel drainage layer. Profiles of the root zone and gravel layer will be established with different combinations of gravel size, gravel shape, root-zone mix and initial moisture content. Water retention in the root-zone layer will be examined when it is

placed over intermediate layers of varying size and composition.

• **Understanding the Hydrology of Modern Putting-Green Construction Methods**, by Dr. Edward McCoy at The Ohio State University-OARDC.

How does the profile design, root-zone composition, slope of the green, drain spacing, profile depth, and irrigation protocol impact water movement and the extent of water perching in a USGA green?

This research project will fo-



cus on water drainage, redistribution and use by turfgrass as influenced by a variety of factors

related to modern putting-green construction methods.

• **Assessing Differential Root-Zone Mixes for Putting Greens over Time under Two Environmental Conditions**, by Dr. James Murphy at Rutgers/Cook College.

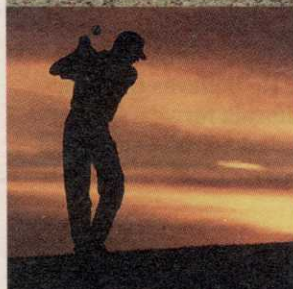
How do alternative putting-green construction methods stack up to the USGA Green Section recommendations? Over a five-year period, recommendations for sand particle size distribution and the depth of the root-

zone mix in response to the microenvironment will be evaluated. A variety of organic composts and inorganic additives for root-zone mixes will be compared to commonly used peat sources.

The physical, chemical and biological changes that occur as root zones mature, and the factors which contribute to the success or failure of greens will be determined.

• **Evaluation of New Technologies in Construction and Maintenance of Golf Course Greens**, by Dr. Daniel Bowman

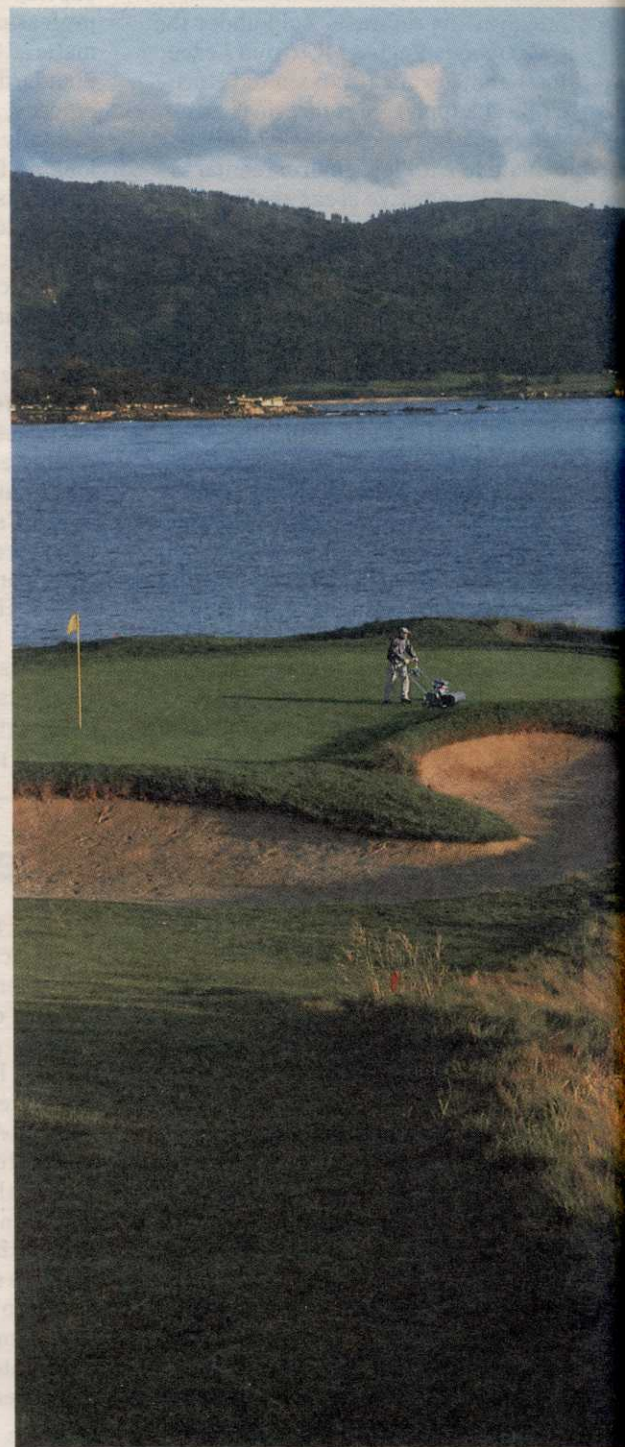
Continued on next page



To all those superintendents
who demand perfection and
productivity, we dedicate a
full range of equipment.

"The partnership between Ransomes and Pebble Beach promises to contribute greatly to the maintenance of the course's image. Shared goals and common philosophies are at the heart of this working partnership."

Ted Horton
Vice President of Resource Management
Pebble Beach Company
Pebble Beach, California



TPCs rank among Audubon elite

JACKSONVILLE, Fla. — With the recent certification of the TPC at Sawgrass here and the TPC of Scottsdale, seven facilities within the PGA Tour's network of Tournament Players Clubs have been so designated through the New York Audubon Society's Cooperative Sanctuary Program.

The TPC of Scottsdale is only the second facility in Arizona to become fully certified; Sawgrass is the first in north Florida and only the eighth out of the more than 1,100 courses in the state. "We are extremely pleased that the TPC at Sawgrass and TPC of Scottsdale have joined the other five TPCs that have fulfilled the demanding environmental requirements to become one of the 63 fully certified U.S. courses in the Audubon Cooperative Sanctuary Program," said Pete Davison, vice president of PGA Tour Golf Course Properties, Inc.

Researchers investigating putting greens

Continued from previous page at North Carolina State University.

This research is designed to characterize the physical, chemical and biological changes that occur in a sand-based golf course green over the first five years. It proposes a novel two-phase root-zone mix as an alternative to existing sand:organic matter mixes and questions whether the incorporation of stabilized organic material (i.e., sphagnum peat) is war-

ranted over the long term.

The research also will address the question of the perched water table, specifically regarding changes over time, and possible deleterious effects by air injection and water evacuation.

• **Grow-in and Cultural Practice Inputs on USGA Putting Greens and Their Microbial Communities**, by Dr. Roch Gaussoin at University of Nebraska.

Beyond the questions dealing with the chemical and physical

properties of putting green root-zone mixes, how should they be grown in and made ready for play? Are the high rates of nitrogen used to accelerate growth a short-term solution to meet opening day, but a path to long-term failures? What are the criteria for allowing play on new greens?

This project will evaluate grow-in and post-grow-in cultural practices and procedures and readiness for play criteria.

The long-term effect of these parameters on putting-green performance, depth and extent of turfgrass rooting, and root-zone hydrological, physical and chemical characteristics will be determined.

The project also will assess the influence of these procedures on the microbes found in the root zone.

• **Organic Matter Dynamics in the Surface Zone of a USGA Green: Practices To Alleviate Problems**, by Dr. Robert Carrow at University of Georgia.

The primary objective of this project is to determine the effectiveness of selected fall/spring-applied cultivation practices on the enhancement of bentgrass root development, water infiltration, and soil oxygen.

It will examine the effectiveness of selected summer-applied cultivation, top dressing and wetting-agent practices on bentgrass root growth, water infiltration and soil oxygen status during the summer months when root decline occurs.

• **Non-target Effects of Turfgrass Fungicides on Microbial Communities in USGA Putting-Green Profiles**, by Drs. Gary Harmon and Eric Nelson at Cornell University.

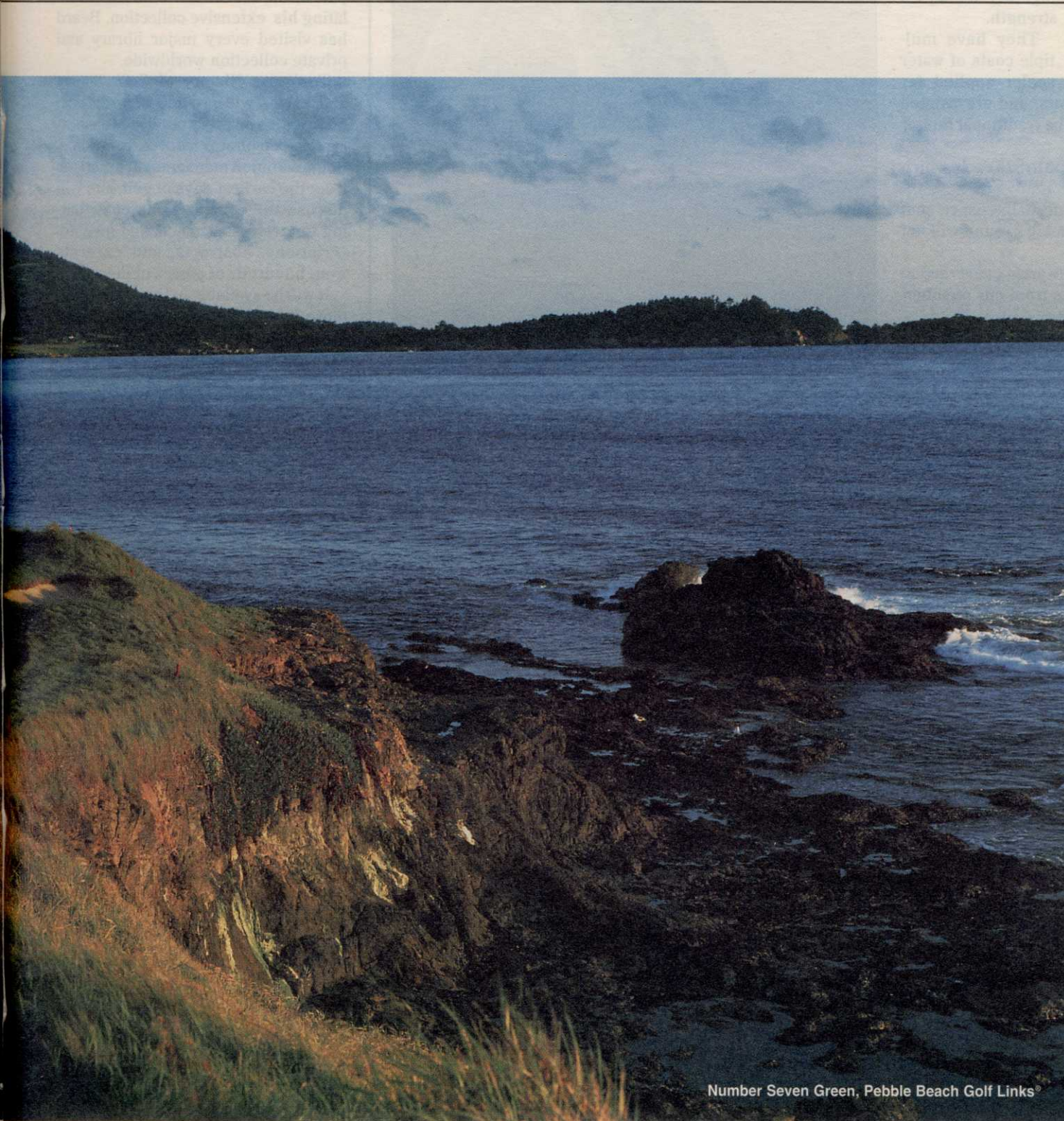
This research effort will investigate the non-target effects of fungicides used for disease control on golf course putting greens.

The non-target effects on greens treated with fungicides potentially include substantial changes in the soil ecosystem which may increase disease susceptibility and affect nitrogen cycling and the health of turf.

• **Bacterial Populations and Diversity within New USGA Putting Greens**, by Drs. Monica Elliott, Elizabeth Guertal and Howard Skipper at University of Florida, Auburn University and Clemson University.

What species of bacteria are found in new greens? Where do they come from? How do microbial populations change over time? This project will monitor the micro-organisms in newly constructed Bermudagrass and bentgrass greens on golf courses in South Carolina, Alabama and Florida.

Effects on bacterial populations will be examined based on differences among organic material, fumigation, nitrogen fertility and clay minerals.



Number Seven Green, Pebble Beach Golf Links

We call it commitment. Others call it obsession. Whatever name you give it, we are talking about fulfilling a promise. We promise to provide you with equipment to meet your demands; with service organized around a global network of dealers for quick response; and with products designed to help you fit 15 hours of work into 8. Every product in our full lineup is a manifestation of our promise: the world famous Turf-Truckster®, ultraprecise greens mowers, productive fairway mowers, the industry's highest quality aerators and dozens of versatile attachments.

Ransomes, Cushman and Ryan equipment will produce results you can measure if perfection is your standard. For a free demo, call 1-800-228-4444.



**RANSOMES
CUSHMAN
RYAN**

For The Best Results

USING THE SHOP TO ITS FULLEST

Bag rack the best of all worlds for both grounds crew, golfers

By TERRY BUCHEN

GALENA, Ohio — At the Double Eagle Club here we designed a bag rack for our practice area that does more than simply hold a set of clubs.

Our rack holds even the largest golf bag available and has a bucket of water; cleaning brush and



two towels for club cleaning; and wooden golf tee holder that doubles as a paper cup/aluminum can holder with beveled edges.

They are made of pressure-treated wood, glued and screwed together for added strength.

They have multiple coats of water sealer applied for

protection from irrigation and the elements, and are painted with two to three coats of glossy enamel, the traditional hunter green.

Costs for materials and labor are about \$50 to \$75 each, which includes the black bucket.

The water is changed as needed, and our maintenance staff moves the racks daily so the turf on the teeing ground will not turn yellow.

As well as being functional, the bag racks are a conversation piece and we receive many nice comments from our membership and their guests.

(Free blueprints of the bag rack are available by calling Buchen at 614-548-6644.)



Towel, cleaning brush, water, can holder — this bag rack has it all.

Dr. Beard writing turfgrass history

Ann Arbor Press has announced the signing of a new book by Dr. James B. Beard. *Turfgrass History of Golf, Sports and Lawns* will be available later this year. This project represents a lifetime of research, and literature collecting by one of the world's most respected turfgrass scientists.

"I think this book will create high interest in some of the early books, reports, and other publications," said Skip DeWall, president of Ann Arbor Press. "Dr. Beard and I are grateful to the U.S. Golf Association for funding part of the research." While accumulating his extensive collection, Beard has visited every major library and private collection worldwide.

Turfgrass History of Golf, Sports and Lawns will provide biographical information on every published author, rarely seen photos from early publications, common management practices from the earliest days of golf, and will discuss the organizations contributing to turfgrass science, and give descriptions, abstracts, and excerpts from hundreds of pieces of literature.

It will be available in December. For more information contact Ann Arbor Press, P.O. Box 310, Chelsea, Mich. 41818; 800-858-5299.

IF IT'S NOT
WATERSAVER,
YOU'RE NOT
SAVING
ANYTHING.



Est. 1953

Lake Liners Designed for
America's Greatest Courses
1-800-525-2424

Introducing the new thinner, sleeker Verti-Drain.®

The new model 205.150 trimmed down version is a beauty to behold. At only 60 inches working width it easily fits through gates, over bridges and in all sorts of tight areas, including your budget. Built with the same integrity you've come to expect from Verti-Drain. All this and it still goes 16 inches deep, proving once and for all that beauty is thin-deep.



VERTI-DRAIN®
Works like a pitchfork, only better.

Emrex, Inc., Box 1349, Kingston, PA 18704 (717) 288-9360

Superintendents weigh in on importance of playing

Continued from page 17

tendent at the private Hyannisport (Mass.) Club, often plays with club members, particularly board members.

"Members ask employees questions about the course," Passios said. "But they tend not to ask the right people and their questions never get back to the person with the best answers, the superintendent."

Playing with members improves communication at the club, Passios said. Many clubs require the superintendent to play with certain people, often the green chairman, on a regular basis. Finding the time to play a full round within the 60-to-70-hour work weeks of most superintendents can be difficult, however.

"I've started out to play 18 holes with a member and ended up playing five or six because there was something that I had to attend to," Passios said. "But those five holes are still quality time and you learn a lot."

Superintendents at public, as well as private courses, should make the effort to play frequently, according to Dennis Lyon, director of the City of Aurora, Colo.'s four golf facilities. Having the head pro and superintendent play together on a regular basis allows the two to compare notes and better understand each other's needs, he said.

"We have a superintendent/pro tournament three times a year," Lyon said. "The superintendents at our courses play the pros. The course hosting the tournament is usually in tip-top shape. Our regular players benefit from that. But the best thing is the camaraderie and exchange of information that occurs between the superintendents and pros. The dialogue is non-stop."

Dusch plays several times a year with Atlanta National head pro Gordon Leslie, a strong player who missed the cut for the U.S. Senior Open by a single shot last year.

"We talk a lot," Dusch said. "Since we're both pretty good players, we're talking apples to apples when we discuss the course from the player's viewpoint. And members seem to respect what you say a little more if they know you play."

To help his staff better understand the game from the customer's perspective, Lyon holds an annual golf outing with the superintendents, pro shop staff, City Council and Council-appointed golf advisory committee. What they've discovered is most important to customers is the condition of the greens and tees followed by whether the drinking water cans are full, the bathrooms are clean and the ball washers contain water.

"A good superintendent should look for every opportunity to communicate with board

members, pros and customers," Lyon said. "Playing golf is one way to do that."

Because of the seasonal nature of many resort courses, it is difficult for superintendents at those facilities to find the free time or tee times to play regularly. Ron Mahaffey, head superintendent at The Lodge at Ventana Canyon, plays as often as possible at his 36-hole complex in Tucson,



Charles Passios

Ariz. But he also seeks input from his two assistants and the rest of the management staff, all of whom play frequently.

"I sit down daily with my assistants and weekly with the rest of the management

staff," Mahaffey said. "What they have to say about the courses is very helpful."

Mahaffey, Lyon, Passios and Dusch all agree it isn't neces-

sary to be a single-digit handicapper. It is helpful to enjoy the game and understand the rules in order to better communicate with players. But absolutely necessary? No.

"A good friend of mine, John O'Connell [who died last year], was superintendent at Blue Rock Golf Course [in Yarmouth, Mass.] for 37 years," Passios said. "It received all kinds of play and John kept it in beautiful shape, even though he didn't play at all."

GARDENS HONOR BURTON

ATHENS, Ga. — The International Botanical Gardens here have been dedicated to Dr. Glenn Burton of the University of Georgia on behalf of the work in plant development he has done over his lifetime. "The sun never sets on plants developed by Dr. Burton," it was said at the dedication ceremonies. Plants he developed have provided sources of sustenance, both for soul and body, reported Georgia GCSA's *Through the Green* magazine.



To all those
superintendents who
ask for nothing but a
consistent cut from their
greens mower, who are
intensely passionate
about perfection, we offer
the Greens Super 55.

Ransomes®
Greens Super 55.

The results of your turf management program are most obvious on the greens. Here, your success is measured in micro inches. For a mower that meets your need for a flawless cut, put the Greens Super 55 to work. The GS55 is a masterpiece of balance. It automatically hugs the ground without relying on the operator's ability to read the green. The result is an even, consistent cut for ultimate playability.

The Greens Super 55 is the only machine that can meet the productivity and performance expectations of perfectionists like you. It is so well engineered it performs as if you designed it yourself. For a free demo, call 1-800-228-4444.



**RANSOMES
CUSHMAN
RYAN**

For The Best Results

4397 Ransomes Corporation, 900 North 21st Street, P.O. Box 82409, Lincoln, NE 68501-2409
© Ransomes Corporation 1996. All rights reserved. Reproduced by permission of Pebble Beach Company.
Pebble Beach, its images and course designs are trademarks and service marks of Pebble Beach Company, all rights reserved.

Sprinkler deficiencies

Continued from page 17

So what triggered our interest in exposing suspected problems as a result of sprinkler deficiencies? Tim and I have been long suspicious of failings that appeared sprinkler-related and were highly motivated to seek answers by the works and accomplishments of two eminently qualified researchers: Dr. Solomon and deceased superintendent Jim (JaMac) McPhilomy. McPhilomy managed golf courses in New Mexico and Colorado, and his tireless and voluminous records allowed us to hit the ground running in our search for answers. A few of his noteworthy observations were that:

- rain tests out at 98 percent uniform;
- part-circle sprinklers in general had the most deficient (non-uniform) water application;
- elevation significantly impacts sprinkler performance; and
- catchment testing on golf courses in five Southwestern states revealed that golf course greens have the worst uniformity, fairways the best and tees fell in between.

On one occasion, to prove to his own satisfaction that elevation affects uniformity, McPhilomy dug up a sprinkler head in Pueblo, Colo., and tested that sprinkler in Denver (a much higher elevation), verifying that elevation was the variable.

Dr. Solomon, then director of C.I.T., brought keen insight to our world of turf management by revealing there is a huge difference between what we need for uniformity in high-play turf situations and in most agricultural applications. The key being that we find a dry area on a green, the size of a tabletop or less, to be unacceptable whereas in other "crop" situations "yield" variations are more acceptable and tend to average out.

Solomon believes we should depart from agricultural uniformity evaluations based on the Coefficient of Uniformity (C.U.) and Distribution of Uniformity

Ed. — Determining that sprinkler selection is "too often no better than Russian roulette," Certified Golf Course Superintendent Al Kline of University of New Mexico Championship Golf Course in Albuquerque joined forces with Toro irrigation specialist Tim Cavellier and staff at The Center for Irrigation Technology (CIT) at California State University-Fresno. Their aim: to improve the efficiency of the heart of golf courses, the irrigation systems. The result of their work is some fascinating findings, conclusions and recommendations. Here is Kline's report.

(D.U.) methods because the results of these tests, expressed as a percentage, are based on averages. The end result of these averages are unacceptable to golfers and leave us in the dark relative to pinpointing our problems.

Exit, agricultural sprinkler evaluation; enter, turf sprinkler evaluation by way of SPACE. This approach enables us to see and evaluate where those water drops actually do and do not wind up; and assist in finding answers to improve uniformity and/or predict how much more time must be added to a station to eliminate dry spots.

Now, our sprinkler test stand will make even the most skeptical excited about uncovering the mysteries of where "the drops fall." Within two hours (including the one-hour test), the computer will divulge exactly how this sprinkler will perform, in whatever configuration (triangular, square, rectangle) with the size nozzle and base-of-head pressure provided for that particular test.

Imagine how much more accurate recommendations or decisions will be with no-nonsense data!

Let's move on and take a quick look at your warranty. Your sprinklers may be guaranteed to pop-up, squirt and turn for some guaranteed period, but not necessarily give a uniform application. Think about that. Shouldn't uniformity be at the top of your list, and an excellent uniformity be the number-one priority and guarantee? Have we never thought about the absolute importance of uniformity because we assumed all sprinklers, with all nozzles at all pressures were uniform?

Let me explode this myth and hopefully cause us to begin asking questions

and getting documented answers.

Really good sprinkler uniformity, from our testing to date, is the exception rather than the rule.

The following summary illustrates some of our sprinkler test stand findings:

- Pressure changes of plus or minus 5 pounds or more at the base of the sprinkler head will usually affect uniformity — sometimes good, sometimes bad.
- The size and configuration of a "swing joint" can and usually does affect uniformity. (Note: Most, if not all, sprinkler heads tested do not have "swing joints" attached during the test.)
- Nozzle rotation, as little as 1/8 inch, can and usually does affect uniformity with certain nozzles.
- Speed of rotation can and usually does affect uniformity.
- A difference in the bore surface (rough or smooth) of a nozzle, same size compared to same size, can and usually does affect uniformity.
- Elevation affects uniformity. (Note: Most heads are tested at sea level. More work needs to be done on this.)
- Existing systems that are lacking in uniformity (and most are lacking) have great potential for improvement, that is, nozzle change, pressure change, internal change, etc. SPACE shows the problems and enables you to make improvements.
- All sprinklers are not created equal (specifications without a definite CIT rating are most often meaningless); and further, each sprinkler will probably have only one nozzle at one pressure (out of all the nozzles and pressures listed in the catalogue) that will give you a really good uniform application of water.
- At this time it appears that if a CIT

— Coefficient of Scheduling of 1.10 to 1.30 (10 to 30 percent inefficient) is an acceptable performance range, then sprinkler manufacturers would do us a favor by reducing their product offerings by 75 to 80 percent.

• Testing confirms that there is greater potential for very good uniformity relative to smaller nozzles and lower pressures. This, however, is not an automatic result, and in the absence of testing you will not truly know.

•••

Our test results reveal:

- For a number of reasons, manufacturers don't often give definite uniformity information. (If you don't believe this, pick a page out of your favorite catalogue and request to see profiles at all pressures and nozzles listed, densograms and scheduling coefficients on all those same heads at a spacing selected by you.)
- We find differences in uniformity between new sprinkler heads "right out of the box."
- Production changes and/or flaws caused during the manufacturing process can and usually do change uniformity.
- A sprinkler head with excellent uniformity (great descending wedge pattern), is much more "forgiving"; i.e. pressure changes and deviation in spacing.
- Many tests result in D.U.'s and C.U.'s in the 80- to 90-percent range which is accepted by many today as being excellent. The CIT Scheduling Coefficient often is 1.5 or higher on these same tests, causing those of us in turf to increase our scheduling times by 50 percent, which, in fact, is horrible.

•••

CONCLUSIONS

1. Testing sprinkler heads before installation should be the rule and not the exception. (Note: If you don't believe this, ask for the print-outs and uniformity data that the designer used in sprinkler selection for your system). If there is data to be found, look at it, ask questions, find comparisons.

2. Until the end users of sprinklers become more knowledgeable and begin to request and specify excellent uniformity (low scheduling coefficients — 1.1 to 1.3 at no more than .50 inch per hour precipitation rate) as a primary requirement, we will continue to waste water and money and be plagued with turf problems directly related to poor uniformity.

3. There should be at least one sprinkler test stand available in each community. It's time to expect more from our sprinklers. Reducing our water use by 25 to 50 percent is a realistic goal with the technology now available. Let's get with it before the wells run dry.

4. Beware of so-called "custom-designed" systems which usually include the use of two systems on a green and tout the virtues of valve-in-head. Hard copy, CIT-type test data will likely send a shiver down your spine.

5. Beware of the trendy reply, "Oh yes, these sprinkler heads have been tested." Even if by CIT, why, you ask? Because they haven't told you anything yet. You want to know if it was a good or bad test, how many alternatives were looked at (and you want to see those tests) at your elevation, with your size swing joint, with your pressures which do vary at different elevations, etc. You must have hard copy of these tests in order to do your job.

6. There is no substitute for uniformity — demand it.

Tee & Green & In Between

Whether your challenge is a deadline, a tee, a green, a fairway, a rough, or a bunker surround, we have a blend that fits your needs.

We understand the variety of problems you face because we have spent a great deal of time listening to golf course superintendents. As a result, Tee & Green Sod offers the most complete product line

available to the golf course industry—even a four-foot wide washed roll!

Give us a call for information about our selection of products, and our unique harvesting and washing techniques.

- Bentgrass
- Bluegrass
- Washed sod
- Bluegrass-Ryegrass
- Bluegrass-Fine Fescue



**TEE &
GREEN SOD**
—INCORPORATED—

401/789-8177 • 401/789-3895 (fax) • PO Box 418, Exeter, RI 02822

CIRCLE #122

Of elephants and other job-easing potpourri

By TERRY BUCHEN

Here's a potpourri of useful information all superintendents can use in their daily lives, both on and off the golf course, to improve efficiency.

Most mechanics' work benches are 36 to 38 inches in height. Consider raising them or building new ones to a height of 40 or, preferably, 42 inches.

This makes for a much better posture and helps eliminate aching back muscles from the many hours spent bending over. Many supers have put a metal surface on top of the wooden bench for obvious reasons, with a quarter-inch thickness that lasts for years.

BLUE AND BLUER

Sit down for this one. Copper surfaces that are used decoratively at the clubhouse for the roof or gutters and down spouts, or for other areas on the course can turn an unsightly brown color where traditional copper/brass cleaners tend to only temporarily clean the surface. Turning copper to a brilliant blue/turquoise color, similar to the Statue of Liberty, is best achieved by going down to the closest zoo and acquiring some urine from an elephant. Simply wipe one or two coats of elephant urine onto the surface of the copper using as much elbow grease as possible. This provides a thorough cleaning which helps in the oxidation process providing brilliant blue hues.

MEMORANDUMS

Written correspondence between course officials and employees who serve as department managers has been the norm for years. Another proven, accepted practice is using telephone memos, which has been used by attorneys with great success. They show — at a future date — that verbal communication has transpired. The date, time of day, to/from, subject matter and further details are the typical subject headings on memo pads, usually printed on golf course stationary. Use them when you talk with subcontractors, bureaucrats, utility companies and purveyors and any instance where documentation is needed. File them just in case they are ever needed.

SOCIAL SECURITY

A thorough way to determine if your Social Security (FICA) deductions from your paycheck have, in fact, been paid to the Social Security Administration is to get Form SSA-7060 from the post office or local Social Security office. They will provide your yearly total earnings that go into your retirement fund, not including the names and addresses of former or current employees. Another option is to get more detailed earning information including self-employment or employment with the names and addresses of current and former employers. For a fee for each year requested, they will furnish total earnings deducted

from your paycheck. For an extra \$15 they will certify the information.

Another Social Security document is the Request for Earnings and Benefit Estimate Statement, Form SSA-7004, which will provide you the approximate benefit earnings you will receive once you retire, regardless of when or at what age you retire. There is no fee for this information and it takes about six weeks to receive the statement.

LIGHTNING

Lightning safety is a major concern of superintendents for their employees. The U.S. Golf Association is a leader in promoting lightning safety through posters and handout materials for golfers and employees. Technology has been increasing on lightning awareness with The Weather Channel on Cable-TV and the new computer/satellite dish subscription weather services.

The latest technology is the

hand-held lightning/storm detector. It is powered by two nine-volt batteries which last about 40 to 70 hours.

Some interesting statistics: an average lightning strike is six miles long; the average thunderstorm is six to 10 miles wide, traveling at 25 miles per hour; when the leading edge of a thunderstorm approaches to within 10 miles, a person is at immediate risk due to the possibility of lightning strikes coming from the over-



hanging anvil clouds which can cause death and injury occurring when clear skies are directly overhead. Thunder can only be heard over a distance of three to four miles, depending on humidity, terrain and other obvious factors. The portable detector sells for less than \$200.



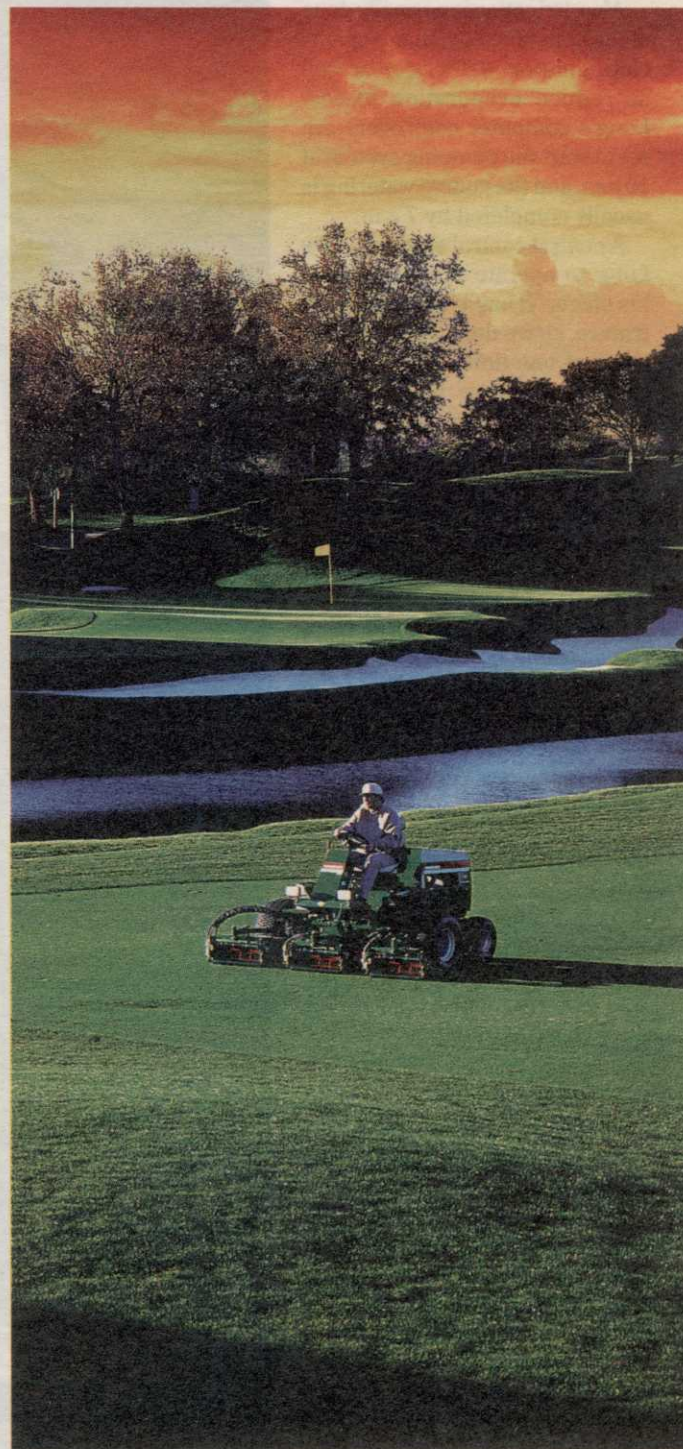
You've had to change
the way you maintain
your fairways to reflect
new, higher standards
of quality. We know
your equipment needs to
be up to the challenge.

Ransomes®

Fairway Mowers.

Today's fairways demand a level of quality that was formerly reserved for greens. To meet these higher standards, superintendents have found a reliable, productive ally in the Ransomes® family of fairway mowers. The T-Plex 185 is perfect for highly visible tees and collars. The 250, 305 and 7-plex 405 are the industry's only "right" weight mowers. The 405 features a wide 156" cutting swath while the new 3500 is a production powerhouse. Ransomes mowers have been designed to maintain the same perfect finish from one side of the fairway to the other. When you start with Ransomes reel mowers, you finish with the best.

Call 1-800-228-4444 for a free demo or the name of the dealer nearest you.



RANSOMES
CUSHMAN
RYAN

For The Best Results

Long tackles water challenges

Continued from page 17

the water applied to the course climbs to as much as 500,000 to 800,000 gallons per day. Colorado River water maintains a fairly steady temperature of 68 degrees year-round.

"We take care of the greens first, then the tees, and then the fairways," Long explained. "The rough always gets neglected, because we just don't have the funds."

One cost-cutting measure Long uses is filling his irrigation lakes during off-peak hours. The two lakes hold about 15 acre feet.

Also, irrigation is normally done at night to take advantage of special night-time water rates, as well as reduce evaporation losses. Long's computer controllers are set to start the pumping system at 10 p.m. and the course watering is usually completed by 7 a.m.

A central control system allows Long to operate the water from his office. "It has a cycle-and-soak feature, so we don't put the water on all at one time," he said. "Because the course has so many slopes, we try to prevent runoff."

A weather station on the course records the evapotranspiration rate (E.T.) and sends the information to the computer, which calculates the amount of water that should be applied.

"We have to adjust those rates considerably, or we would run out of water the first 10 days of the month if we applied what the computer figures," Long stressed. He said the highest recorded ET on the course was .51 inches.

Long is quick to have his crew maintain the course's sprinkler equipment. If a sprinkler head leaks, it is repaired immediately. The maintenance crew also does spot watering during the summer months, which decreases sprinkler time.

In addition to his \$250,000 water budget, Long is allotted \$350,000 for labor and other costs to operate and maintain the course.

It is recognized by the U.S. Golf Association as the most challenging course in Nevada and the 8th most difficult in the Southwest, primarily because of the daunting distance and unflagging desert rough. Golfers casually mention after a round, "I lost a dozen golf balls, but the view was worth it."

While the course is located in rugged desert, golf course designers insisted on intense reshaping of desert terrain, pushing up mounds and creating depressions to make play tougher and more interesting.

"The course was designed to look natural, but it required a lot of shaping," Long said. "This whole facility was originally designed to be a master-planned casino operation. The course was designed to be an exclusive type of club for high rollers."

Emerald River was to be a master-planned hotel and casino, with an outdoor amphitheater. Its developers were anticipating the facility would be the nicest destination resort facility in Laughlin. The skeleton of the unfinished casino stands on the course, a reminder of how shifty the sands of junk bond financing can be.

Along with the unfinished casino is an unfinished water pipeline which was supposed to bring effluent from Laughlin to water the golf course. The pipeline was abandoned after an investment of about a half million dollars.

In June 1993, Paine Webber

took control of the development and hired Golf Enterprises, Inc. to manage it. Since then, more than \$300,000 has been invested in the course. Long was transferred from the Great Southwest Golf Club in Dallas, also managed by Golf Enterprises.

While the course was originally designed for about 40 rounds per day during the peak season in January, it gets about 120 rounds each day.

One of Long's first priorities on arriving was to aerate wall-to-wall. "A lot of the water put on the golf course was running off into the desert," he said. "Dur-

ing the past year, we have aerified eight times."

Not only does Long have to contend with high water prices, but with 50- to 60-foot changes in elevation at various points and the length of the course from end to end — four miles. That is a drag on the pump station.

"At our pump stations, we are running at 140 psi pressure just to move the water around the course," he said. "By the time water gets out to our furthest and highest point, we are down to 80 psi. We get a lot of pressure loss."

The pump has a capacity of 3,200 gallons of water per minute, but in

his normal daily operations, Long pumps about 1,100 gpm.

Heavy thunderstorms are prone to hit the area, causing some flash flooding. This causes Long some headaches in maintaining golf cart paths. "The main damage is from mud washing onto the paths. It never really damages the course itself."

Emerald River has all the stuff of which legendary golf courses are made. There is the natural landscaping, beautiful vistas of both the mountains and the wide Colorado River, and a layout that challenges all levels of players — and superintendents.



Indigo Run hires superintendent with Nicklaus experience: Wilkerson

HILTON HEAD ISLAND, S.C. — Mitchell Wilkerson is the golf course superintendent at the island's newest golf course, The Golf Club at Indigo Run, a collaborative design from Jack Nicklaus and son Jack II. Wilkerson has experience tending to Nicklaus designs, heading up maintenance operations at Annandale Golf Club (GC) in Jackson, Miss., and English Turn outside New Orleans. Wilkerson comes to Indigo Run from Daufuskie, Island, S.C., where

he looked after the Weiskopf/Morrish-designed Bloody Point GC, recently named one of the top 10 conditioned courses in the ClubCorp. of America management portfolio.

MOUNT AIRY, Md. — Billy Casper Golf Management has named **Paul J. Ramina** to the position of golf course superintendent at the soon-to-operate Links at Challedon here. A May opening is planned. Ramina arrived at the Brian Ault-designed

Challedon from Congressional Country Club (CC) where he served as assistant superintendent.

WICHITA, Kan. — **Wayne Van Arendonk**, CGCS, is the new golf course superintendent here at Rolling Hills CC. Van Arendonk had previously served in a similar capacity at Ames Golf & Country Club in Ames, Iowa.

In Georgia: **Rob Witney** has been named golf course super-

intendent at Country Oaks Golf Club in Thomasville, leaving a similar position at Fox Chase Plantation... **Bill Knox**, formerly superintendent at River Pines has moved to Fort McPherson Golf Club... **Gary Nagel** has left Brazell's Creek to accept the head position at the New Laura Walker State Park Golf Course in Waycross... **George Preisinger**, formerly of Marietta Country Club, has accepted the golf course superintendent's job at Brookstone Golf & CC in



WHERE THEY'RE GOING

Acworth... Stonebridge GC in Rome has a new head superintendent: **Randy Mangum**, who arrives via Atlanta Athletic Club... **Mark Snyder**, formerly an assistant at Hamilton Mill GC in Dacula, has been promoted to head superintendent... **Steve Sellen** is the new golf course superintendent at Lakeside GC in Atlanta... **Shawn Hillis** the new golf course superintendent at Stonebridge GC in Albany... In Brunswick, Ga., Oak Grove Plantation has a new golf course superintendent: **Michael Popwell**.

RIDGEFIELD, Wash. — **Dan Bierscheid** has been promoted golf course superintendent at Tri-Mountain Golf Course here. Bierscheid joined Tri-Mountain in 1994 as an assistant. He arrived with experience at Oregon Golf Club in West Linn, Ore., and Edgewater Country Club in Portland.

SPARKS, Nev. — **Daniel Bristol** has been named golf course superintendent here at Red Hawk Golf Club, a new Robert Trent Jones II design scheduled to open its first nine in September. Managed by Western Golf Properties, the 27-hole Red Hawk should be fully operational by spring 1997. Bristol comes to Red Hawk from the Estancia Club in Scottsdale, Ariz., where he was assistant superintendent.

FREDERICKSBURG, Va. — **Ray Viera** has been named superintendent at the Billy Casper-managed Somerset Golf Club, a Jerry Slack design scheduled to open here this fall. Most recently, Viera was superintendent at the 36-hole Palm Aire Spa and Resort in Pampano Beach, Fla., but he also spent five years as an assistant at Shinnecock Hills in Southampton, N.Y., site of the 1995 U.S. Open.

GCSANE ADDS ADMINISTRATOR

At the February meeting of the Golf Course Superintendents Association of New England, President Robert DiRico of Brae Burn Country Club announced the addition of an administrative secretary for the association as well as subletting office space at Golf House — home of the Francis Ouimet Museum, the Ouimet Scholarship Fund, and the Women's Golf Association of Massachusetts (WGAM). Janice Vance, executive secretary of WGAM, will also serve the GCSA of New England. DiRico stated the board of the GCSANE was excited about the changes and indicated that "the move to Golf House puts three allied associations under one roof."

PENDULUM[®] MEANS BUSINESS

When it comes to season-long control of crabgrass, goosegrass, oxalis, spurge and many other troublesome weeds, PENDULUM[®] herbicide gets down to business. No other preemergent turf herbicide can match its spectrum of weeds controlled and cost-effectiveness. • PENDULUM brand Pendimethalin also offers greater flexibility than ever before, including sprayable formulations and combination fertilizer products.

• When you consider cash rebates available through July 31, 1996, it's easy to see that PENDULUM really does mean business. Smart Business. • To learn more about the cash rebate offer or for the name of the PENDULUM distributor nearest you, call

1-800-545-9525.



Agricultural Products Division
Specialty Products Department
One Cyanamid Plaza, Wayne, NJ 07470



PENDULUM[®] herbicide is a registered trademark of American Cyanamid Company. ©1996

CIRCLE #124

Superintendents' image a winner among golfers, says NGF survey

Continued from page 1

tion (NGF), 56 percent viewed superintendents as facility managers and 88 percent knew the superintendent was the main person in charge of course maintenance.

"Since superintendent traditionally has not been an up-front, visible position with the general public, it might have been reasonable to assume most golfers weren't aware of the position or its importance," said NGF Vice President of Consulting Rick Norton. "But most golfers apparently realize the superintendent oversees a big budget and many people. That's a very positive sign."

Among the other findings in the NGF

questionnaire were:

- 76 percent viewed the superintendent as the person most responsible for the condition of the golf course;

- 62 percent perceived the superintendent as the person best equipped to instruct golfers about the ecology and condition of the course;

- 38 percent said they had met the superintendent at their course and a smaller percentage said they knew him/her by name.

Golfers said course conditioning—the superintendent's primary responsibility, Norton noted—was among the three most important considerations when they chose a place to play. Cost was the most

important item, followed by the availability of tee times.

Golfers said unrepaired ball marks on greens concerned them most about course conditions. Worn tees, limited availability of drinking water and poor bunker and sand trap conditions followed in that order. Many female golfers also mentioned unfilled ball washers among their major pet peeves, Norton said.

Golfers (79 percent) said the superintendent's skill was the main factor determining course conditions. Other factors they mentioned were weather (72 percent), maintenance budget (59 percent), quality of turf equipment (58 percent), and the superintendent's formal

education (41 percent).

"It's good for the profession that the public recognizes superintendents and their skill level as well as these other factors as having an impact on course conditions," Norton said.

Golfers are an environmentally conscious lot, according to the survey. Ninety percent said they believe in the need to protect the environment (compared to 87 percent of the general public). Forty-eight percent said they had donated money to environmental protection causes (compared to 38 percent of the general public).

"The industry says golf is good for the environment," Norton said. "Yet we know there is a large percentage of the population that has a negative opinion about golf's environmental effects or has no opinion at all. The obvious implication is that, with the superintendent viewed as an expert by the golfer, there is a tremendous opportunity for superintendents to reach those who don't know about golf's positive side."

Although most golfers realized the important role played by the superintendent, few were familiar with the profession's major organization, the GCSAA. Only 10 percent knew what the GCSAA was, although those who recognized the association had an even loftier view of the superintendent's role than those who did not.

Superintendent and GCSAA board member Scott Woodhead said the study pointed out the major roadblock keeping superintendents from reducing chemical use on their courses. Asked if they would accept somewhat poorer playing conditions in exchange for reduced water and chemical use on their golf course, less than 40 percent of golfers said they would be willing to make the sacrifice.

"That's the main problem right there," Woodhead said.

Perfect Partners. Alette® T&O and Thalonil™

Get the team that stands strong against summer stress complex—Terra® Alette® T&O and Terra® Thalonil™. This partnership provides the one-two punch you need to protect turf inside and out. It starts with the systemic action of Alette T&O. Since it's translocated throughout the plant, turf gets top to bottom protection against Pythium blight and root rot. On the outside, Thalonil sticks to the job of keeping turf safe from brown patch, dollar spot, leaf spot, snow mold, algae scum and many

other diseases. And, since there is multiple site activity, there is minimal risk of resistance. Together, Terra Alette T&O and Terra Thalonil put control of summer stress complex in the bag. It's the pair that'll fit your turf disease program to a tee.



Terra International, Inc.
P.O. Box 6000
Sioux City, Iowa 51102
1-800-831-1002



Alette is a registered trademark of Rhone-Poulenc.

Texas institutes certification change

AUSTIN, Texas — The Texas Department of Agriculture (TDA) has instituted a significant change to its certification program for most pesticide applicators. As of Jan. 1 all licensed and certified pesticide applicators recertify by self-certification. Self-certification will allow the licensees and certificate holders to be the manager of their own continuing education requirements.

CEUs will continue to be required for license and certificate renewal, but applicators will need to collect and keep certificates of completion distributed at accredited courses. The TDA will conduct random audits of applicators applying for recertification.

CITY HONORS RETIRED SHIELDS

TOPEKA, Kan. — For the first time in 35 years, Jim Shields will not be the on-the-job superintendent at the Topeka Public Golf Course.

Shields officially retired last June after 35 years of service at the Topeka course, but he has been retained as a consultant.

He had been superintendent at Topeka Public GC since 1980. Shields was recognized by city officials last fall for his long years of service and even had "Jim Shields Day" declared in his honor on Oct. 13.

Northeast

NEW ENGLAND ELECTS DIRICO

LOWELL, Mass. — Robert DiRico of BraeBurn Country Club in West Newton has been elected president of the Golf Course Superintendents Association of New England at the annual meeting held at the Mt. Pleasant Golf Course here.

Joining DiRico are new Vice President Kevin Osgood of Newton Commonwealth Golf Course, Secretary James R. Fitzroy of Presidents GC in Franklin and Treasurer Robert Raszala of Hickory Ridge Country Club in Chicopee.

Michael Hermanson of Gardiner Municipal Golf Course will serve as golf chairman, Michael Nagle of Worcester Country Club, newsletter editor, and James Conant of Kings Way Golf Club in Marstons Mills, finance chairman.

John T. Hassett of Mt. Pleasant Golf Course was elected to a three-year term as trustee and will serve with Scott Reynolds of Charles River Country Club in Newton Center, and Charles Passios of Hyannisport Club.

NEW JERSEY HONORS MARTIN

The Distinguished Service Award of the New Jersey Turfgrass Association was awarded to Jack Martin, superintendent of Shackamaxon Golf and Country Club in Glen Gardner.

In the long history of GCSANJ, Martin is the only president to have served two terms: 1971-72 and 1980-81. His efforts as president on organizing and professionalizing the association have been recognized by many supporters of his nomination, as was his work on the water crisis in the early 1980s. Recently, he was instrumental in the fund-raising efforts to support the family of Bert Jones.

South Central

CAMPBELL LEADS WTGCSA

Robert Campbell of Green Tree Country Club in Midland has assumed the presidency of the West Texas Golf Course Superintendents Association. Campbell, who succeeded Brian Daniel of LakeRidge Country Club in Lubbock, is joined on the new board by Vice President Bob Banner of Hidden Hills Golf Course in Pampa and Secretary/Treasurer Terry Hutcherson of Amarillo Country Club. Elected to three-year terms on the board of directors were Paul Caskey of Lubbock Country Club and Steve McMillan of Abilene Country Club.

GOLF COURSE NEWS

North Central



MID-AM HONORS GROTH

The Mid-American Horticultural Trade Show board of directors has named President Don Groth as an honorary lifetime director. Owner of Don Groth Landscaping in Greenfield, Wis.,

he has served as an officer on the Mid-Am board for 15 years, including four years as president.

"He was instrumental in bringing about the participation of the Wisconsin Landscape Federation as a sponsor of Mid-Am," said Managing Director Donn Sanford. "In addition, he has diligently worked to strengthen Mid-Am's relationships with industry associations, particularly the American Association of Nurserymen."

"As long as I can remember Mid-Am, Don Groth has been there," said Peter Grathoff of Thornapple Landscape Maintenance

in Geneva, Ill., one of the directors. "The board of directors decided that he, more than anyone, represents Mid-Am. He is 'Mr. Mid-Am.' He has devoted over 20 years of his life and done a lot of things for Mid-Am..."

OTF AWARDS SCHOLARSHIPS

COLUMBUS, Ohio — The Ohio Turfgrass Foundation (OTF) has awarded \$18,000 in scholarships to 16 turfgrass students.

Scholarship recipients represented The Ohio State University, Ohio State University/Agricultural Technical Institute, and Clark

State Community College.

They are Rebecca Auchter, Phil Bobel, Keith Hair, Michael Hall, Lealon Hardwick, Joseph Houck, Joe Kotula, Kenyon Kyle, Jobin Morrow, Guy Prettyman, Ronald Shover, Todd Underwood, Leroy Wertz, Vincent Whitacre, and Timothy Yingling.

Other scholarships awarded at the OTF luncheon included Kenyon Kyle from George Biddulph; Eric Bresky from Agrevo; Joe Kotula from Glen B. Hudson; Donald Burnett from Best Sand; Jason Haskins from Max Szturm; and Todd Underwood from Northern Ohio GCSA.



Products for a beautiful world...



Like an impressionist painting, nothing brightens your day more quickly than lush green turf surrounded by shading trees and blooming ornamentals.

As partners in the green industry, we know that lush turf, healthy trees and beautiful ornamentals don't just happen. They must be tended, nourished and protected.

At BASF, we provide the tools you need to paint your landscape.

Basamid® soil fumigant frees your soil from unwanted pests including fungi, nematodes and weeds.

Basagran® T/O herbicide cleans out broadleaf weeds, thistles and sedges.

Curalan® fungicide protects your turf and ornamentals from the ravages of ill-tempered weather by preventing and controlling fungal diseases.

Prompt® 5L herbicide maintains a beautiful turf with a low-cost bentazon/atrazine premix.

Vantage® herbicide is ideal for grass control around trees, ornamentals, ground covers and flowers.

Enjoy the serenity that only well-tended turf, trees and ornamentals can provide. Rely on BASF Specialty Products for a more beautiful world.

Always follow label directions.

Basagran and Basamid are registered trademarks of BASF AG. Curalan, Prompt and Vantage are registered trademarks of BASF Corporation. ©1995 BASF Corporation NVA-0895/SP3113-0461

BASF

Manufacturers hedge bets on distribution

By HAL PHILLIPS

Ten years from now, golf courses will likely purchase their accessories — cups, flags, signage, tee and yardage markers, etc. — directly from the factory. In the meantime, however, accessory manufacturers run the gamut of sales approaches, as distribution lines shrink and increased competition render traditional margins obsolete.

Accessories occupy a unique place in the golf course purchasing universe. On the one hand, courses need a new influx of product every year. This repeat business is the market's saving grace, as even quality cups, flags and the like need replacing on a regular basis.

On the other hand, distributors can't be expected to sell, with equal vigor, \$15,000 mowers and disposable tee towels. Some accessory makers feel their products are ignored by distributors, whose traditional cuts of profit were always high for such inexpensive items. A huge influx of accessory manufacturers during the 1980s has made price an increasingly competitive issue, further squeezing margins.

As a result, many firms are hedging bets, putting in place direct marketing systems complemented by an in-the-field sales force to push the product in person. Of course, if manufacturers don't have a catalogue, it doesn't matter what they do — they're cooked.

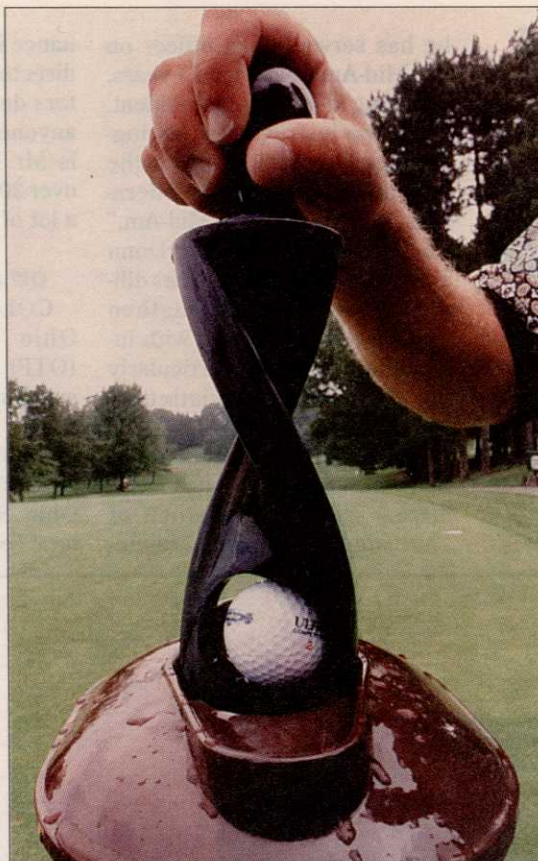
"We do deal directly with the course, but we have sales reps who deal with the courses," said Philip Thompson, president of Eagle One Golf. "We've found that sales reps are more focused on selling our products. We've found that distributors are very concerned about selling mowers and such, and accessories are something of a second child."

"Also, when you have a thousand lines, a distributor can't possibly keep it all in stock. If they deal directly with us, we always have the stock."

Of course, golf is a unique industry in that personal relationships still influence a large portion of sales. Here is where the distributor has the advantage.

"We're trying to hang in with the distributors," explained Mike Neal of Fore Par, Inc.

Continued on page 34



Upscale trend takes hold in the accessory market

By HAL PHILLIPS

There was a time when flags were flags, tee markers were tee markers, signs were signs and 150-yard markers were simple bushes located on the right-hand side of the fairway. No more.

Consistent with trends affecting other aspects of the industry, golf course accessories have been swept along by the urge to go upscale. As new course openings are dominated by facilities bearing the "upscale daily-fee" moniker, accessory makers are responding with products more consistent with the "member-for-a-day" experience.

Good ol' fashioned competition has compounded the impact, as existing courses upgrade their accessories — mostly tee markers and signage — to keep up with the Joneses, i.e. new facilities down the street.

"I think most golf courses have always looked for easy ways to appear more upscale," said Mike Neal, president of Fore Par, Inc. "There isn't a single goat farm that doesn't want to be perceived as more than it is. Even the municipal golf course. You see more and more munis being managed by professional companies that understand the dynamic, and that affects the accessory business."

"We really see it in the higher-end markets and resorts," explained Jon Kelly of Standard Golf. "And we

see new preferences emerging in the industry. Things are going toward a more natural look rather than brighter-colored things. Granite is a good example, and that's why we're excited about the Turfstone."

Standard's Turfstone tee markers are actually manufactured from a thermoset polyester compound, which brings the cost down. But the point is clear: Course superintendents and owners see accessories as important purveyors of image.

"Let me give you an example," said Steve Garske of Par Aide. "We have a tee marker that we make out of cast aluminum. We never even marketed it because we didn't think anybody would pay more than \$20 for it. And we thought the prospect of theft would make it prohibitive. But the Turfstone changed our minds."

Continued on page 34

More Marker For Your Money.



Beautiful, distinctive and durable, Fore-Par markers provide lasting value to golf courses worldwide. Universally recommended by golf course superintendents, Fore-Par combines modern materials with old-fashioned craftsmanship to create truly unique course accessories.

Fore-Par offers a marker for every course. Choose from the classic styling of our golf-ball-on-a-tee model, our safe-minded personalized

anti-rebound marker or a custom designed three dimensional marker. We also offer a complete line of practice green markers. All priced to fit your budget.

For more information on the complete line of Fore-Par accessories, from our industry leading Tubular-Swivel™ flag to our virtually indestructible Elasto-Signs™, call 800 843-0809, and get more for you money from Fore-Par.

FORE-PAR

DISTINCTIVE GOLF COURSE ACCESSORIES

Full Course Personalized Tee Marker Programs.
From time to time, Fore-Par offers special package programs on full course quantities of various personalized tee markers. Call today for details on the current package.

16761 Burke Lane, Huntington Beach, CA 92647 • Tel: 714 842-8494 / 800 843-0809 • Fax: 714 842-7384

Standard offers look and feel of stone

Standard Golf, a producer of golf course accessories since the 1920s, has introduced new TurfStone Tee Markers, tee markers precision-molded from sturdy, lightweight thermoset polymer compounds that look and feel like real stone.

TurfStone Tee Markers are made from a dense, non-porous material that resists chipping, cracking, fading and staining. The material has been used successfully in hundreds of consumer and industrial applications, from sinks and countertops to outdoor furniture, appliances and microwave cookware.

TurfStone markers are avail-

able in a wide range of colors to handle multiple tee locations — red garnet, white quartz, blue slate, yellow sandstone, black onyx and gray granite. Colors are molded throughout the material with built-in ultraviolet inhibitors to resist fading. The markers can also be engraved with a club logo in one color, individual hole numbers, or any other one-color design. Engraved areas are filled with a polyester ink that has been specially formulated for outdoor use.

For more information, contact Standard at 319-266-2638, or your nearest Standard distributor.

CIRCLE #306

Kirby expands tee marker choices

Kirby Marker Systems of Carlsbad, Calif., is expanding its product line to include, red, white, blue and yellow collapsible fairway markers. The above-the-ground markers are designed with a piston that compresses when traveled over by a fairway mower or golf cart.

Kirby has for many years produced green collapsible fairway markers that can be installed as a system every 25 yards. The new line of red, white, blue and yellow markers are intended for golf courses that prefer the more traditional color markings for fairway distances and a less extensive and expensive system.

Kirby is offering a 30-day no-risk trial of its new markers on one hole on any course for one month.

For more information, contact Kirby Marker Systems by calling 1-800-925-4729.

CIRCLE #308

Hollrock unveils ball washing in bulk

Severely cut balls, half balls, rocks, pine cones, and sticks getting into your range ball washers — causing damage and time delays — can be a thing of the past with the Water Jet 3000 from Hollrock. Just dump the full picker baskets onto the grate and walk away. It feeds directly into your range ball washer, like the Hollrock 28k and 56k.

The Water Jet 3000 will process 43,000 balls an hour, has one moving part and the hopper carries a lifetime rust-out warranty. The precision spaced sorting rails will allow only good range balls to pass to the washer. For more information, call Hollrock at 1-800-487-2643.

CIRCLE #310

Coursigns unveils all new line

Coursigns Inc., makers of golf course signs since 1972, is introducing a new line of ball washers, flags, poles, cups, yardage and tee markers.

Coursigns specializes in high-density rugged plastic signs and stakes for golf course use. Coursigns offers 28 different messages for the signs that can help direct golfers around the course. For more information, contact Coursigns Inc. at 847-215-2522, or fax 847-215-2622.

CIRCLE #309

Fore-Par introduces three new buying programs

Fore-Par, Inc. has announced three new programs designed to permit the golf course superintendent to use top-quality Fore-Par products and save money at the same time.

The first program involves the Fore-Par elasto signs. A new and innovative production technique in conjunction with newly improved raw materials has provided dramatic savings which Fore-Par is passing along to the end user.

The second program is a full course special on its #107S and #109S personalized elasto markers.

Taking advantage of the same economies that allow the company to offer its elasto signs at dramatically lower prices, it has developed a "full-course" special that brings

the beauty, distinction and durability of the elasto marker within the price range of almost any golf course.

The third introductory program is to offer its new "soil guard" personalized flags at no extra charge.

"Soil Guard" is a simple matter of coloring the tube portion of the original tubular swivel personalized flags. "Soil Guard" disguises stains that would otherwise cause the flags, especially lighter colors, to be replaced even though still serviceable. "Soil Guard" can be applied to any Fore-Par personalized flag.

For more information on buying programs and products, call Fore-Par at 800-843-0809 or see a local Fore-Par distributor.

CIRCLE #307



The all-new power forwards.

We're proud to announce powerful new additions to our line-up. Our F-60 Series front mowers with features and pricing that are going to score a lot of points.

These 4WD mowers include many technological breakthroughs for increased turf performance. The Auto Assist 4WD with Dual-Acting-Overriding clutch system delivers turf saving traction. In forward and reverse. It automatically transfers power to all 4 wheels when you need it. So, when the going gets tough, you get traction and reduced turf damage instead of wheel spinning. Or, you can choose to engage 4WD on-the-go.

Visibility and maneuverability will increase your productivity.

A durable, independent hydraulic

PTO clutch makes it possible to engage and disengage PTO driven implements on the move.

Kubota's E-TVCS diesel engines deliver maximum power while minimizing vibration and noise. And, enhanced combustion efficiency reduces fuel cost and lowers emissions.

The F-60 Series includes 22, 25 and 30 horsepower 4-wheel drive mowers as well as a 25 horsepower 2-wheel drive model.

If you're looking for the ideal combination of comfort, power and efficiency for your team, you've just found a winning line-up.

For more information, please write to:

Kubota

KUBOTA TRACTOR CORPORATION
P.O. Box 2992, Dept. GCN
Torrance, CA 90509-2992

Financing available through
Kubota Credit Corporation



Available with 60" or 72" side discharge mower or 60" rear discharge mower.

Distribution

Continued from page 32

"Our business is personal and the guy who provides the service will get the business.

"Take a place like Gail's Flag & Golf Course Accessories in Fort Worth. They've got nine trucks with trailers that call on superintendents religiously. They manufacture their own flags, but they distribute for Standard Golf, Par Aide and Fore Par. So in a sense, we're competing with our distributor. But the guys can sell."

Steve Matheo couldn't agree more. He's president of Aabco Industries, Inc., which distributes Markers, Inc. products among other things. Matheo said he believes distributors are doing their best with a low-margin item.

"We've heard from various manufacturers that local distributors don't do a good

job with their [accessory] products," said Matheo. "It stands to reason because they're not going to make more money on them... We just don't feel manufacturers can do as good a marketing job from their headquarters as they can with distributors. The manufacturers are more attuned to manufacturing and raw materials — that's their expertise, not marketing.

"If we're selling a product for somebody and they go direct, we'll stop competing with them."

Gail's Flags and Aabco are examples of how the distribution business has changed. As large distributors buy smaller ones and the number of product outlets shrinks, specialization has emerged as the only path to survival — and competition throughout the golf industry has made this even more clear.

"You have to realize there are iron

houses and soft-good houses," said Steve Garske, president of Par Aide. "You basically have two different categories for distributors. The soft-good guys are doing a better job selling our products than before. But the iron houses have so much competition in their world, they have to concentrate more on heavy equipment. The bottom line for us is, we'd rather have 170 customers [distributors] than 15,000 [courses]."

Traditional distributors still offer advantages to both the accessory manufacturer and the golf course purchasing agent. Soft-good houses, according to Standard Golf's John Kelly, do a particularly good job with replacement business, while the iron houses are adept at scoping out new golf course projects.

"I think it's essential to have both," said Kelly. "Beside, the local customers still

want to do business with their friends and have local people call on them. There are still some great relationships out there between golf courses and the product sales people. In the direct world, that's lost."

"We started out factory-direct," explained Steve Burrell of Southern Corporate Promotions, "but we found that golf courses are too busy to handle the buying. There isn't enough time in the day. So we've blended it. We sell direct, but we'll also go into an area, pick an exclusive distributor, then try to really support him. Then maybe he gets excited and does a better job for us.

"We realize that we specialize in what we do. We just have to stay vertical enough that people can rely on us to meet deadlines. We're also being really careful with our distribution because there's a lot more competition than there's ever been in the past. Price is probably third now, behind service and quality."

Another manufacturer with a hybrid approach to sales is Kirby Markers. According to President Buster Newton, he employs about 100 people as reps, but only one in 10 makes sales. Newton estimates that 70 percent of his sales are made through trade shows and factory-direct efforts.

"I'd love to be a true sales manager, but it hasn't worked out that way," he said.

Upgrade accessory

Continued from page 32

"All these courses are trying to upgrade their image, and maybe they're also trying to justify their green fees."

But granite is definitely "in" — especially with regard to course signage.

"Nowadays, if you're going to charge \$50, \$60 or \$100, you have to justify it," said Buster Newton of Kirby Markers. "The granite tees are definitely selling. At all the shows, these granite guys tell me they're doing great."

Private courses never had the need for expensive signage; presumably, members knew where the hole went and how long it was. At daily-fee and resort facilities, where the likelihood of first-time visitors is high, the need for upscale signage is much stronger.

"I think granite's for graveyards, but there's no denying that it's popular," explained Steve Burrell of Southern Corporate Promotions. "We don't do granite signs; we do wood. It used to be that Redwood was extremely hard to get, but I found a great supplier. Wood is priced less than granite, less than metal and more than plastic. It's affordable and we stayed with materials that can be completely customized.

"The competitive daily-fee courses are some of our best customers because they can upscale with this item. Image has become very important. Absolutely."

Of course, when larger firms stretch the price spectrum, there's more opportunity for smaller firms to fill the market cracks. Eagle One touts the affordability and eco-friendly nature of its sign products, which are manufactured from recycled plastics. Coursesigns, Inc. has taken a similar approach.

"I see the trends with regard to cost, and I think that creates our niche," said Jeff Glogovsky, owner of Coursesigns. "We have inexpensive signs of high quality. They're made of high-density ABS polystyrene plastic that won't damage equipment if you happen to run over them. They're for the guy who wants to get the job done at an affordable price.

"And they look nice, too."

REQUESTED BY PLAYERS

PREFERRED BY COURSE PROFESSIONALS

SPECIFIED BY DESIGNERS

USED WITH PRIDE THE WORLD OVER!



**AND YOU THOUGHT ALL WE MADE
WAS THE WORLD'S BEST BALL WASHER!**

Par Aide Products Co. • 3565 Hoffman Road East • St. Paul, MN 55110 • 612.779.9851 • FAX: 612.779.9854

LANGER AT WORK IN NATIVE LAND

The Bernhard Langer-designed Soufflenheim Golf Club near Baden-Baden, Germany, has opened for play. Soufflenheim expects a substantial portion of play to come from Brenner's Park Hotel & Spa, located 20 kilometers away in the country's Alsace region.



DEVELOPMENT

Robbins/Koch active in Asia-Pacific

KAJANG, Malaysia — The third nine at private Palm Garden Golf Club is scheduled to open in early spring, according to architect Rick Robbins of Robbins/Koch Golf Designs.

Developer Industrial Oxygen, Inc. of Kuala Lumpur opened the first 18 last year.

Industrial Oxygen is also involved with the Swee Lam Golf Club, another 27-hole Robbins design located in Johor Bahru, Malaysia. Routing plans for the resort facility have been drawn up and some preliminary earthmoving completed.

Robbins has a third Malaysian project in the planning stages, a nine-hole addition to Cinta Sayang Country Club in Kedah.

The violence in Sri Lanka is delaying the start of construction of Penrith Estates in Avisawella. Robbins' preliminary master plan for the new 18-hole, resort layout is complete.

Robbins also did the master and landscape plans for the Borneo Golf Resort in Kota Kinabalu in Sabah, Indonesia. Jack Nicklaus and son Jack, Jr., designed the two golf courses.

Phillips comment

Continued from page 10

According to Sharon Newsome of the National Wildlife Federation, the principles are not meant to be instructions, but rather more like a "road map."

A good piece of advice from Jay Feldman, head of the National Coalition Against the Misuse of Pesticides (Geez, never thought I'd be quoting him in that context): "Keep records of your chemical use," Feldman urged those gathered in Pinehurst. "Good records don't exist with regard to golf course usage, and it's hard to debate usage without them. Your community wants to know. Besides, record-keeping is part of IPM [integrated pest management]. Embrace it. Use it to further the dialogue."

Hard to argue with that.

The Pinehurst meeting was part presentation, part interactive group discussion. My particular table spent a good deal of time talking about how the industry can convince the playing public to stop judging golf courses on the "Lush Augusta Scale." How can we convince golfers the occasional brown patch is acceptable, even environmentally responsible?

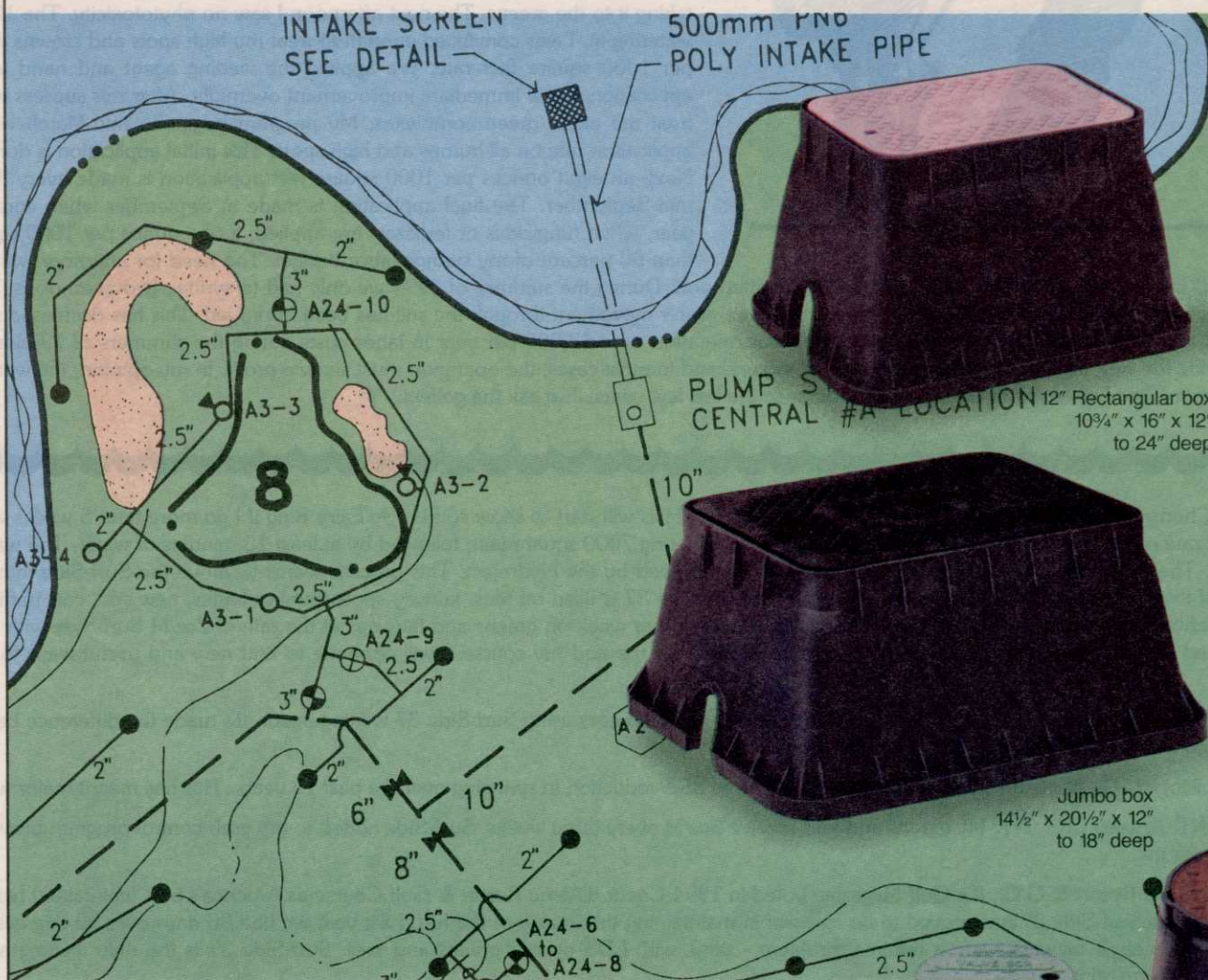
This month's front-page story, by Peter Blais, on a recent National Golf Foundation study shows how far we have to go in this area (see page 1).

My opinion? Television and its on-air personalities must take the lead. The chief executive of a major mower manufacturer passed on the following tidbit to me: The folks down at Augusta National have stopped cross-striping their fairways, opting instead for a single phalanx of mowers cutting the fairways in huge swaths. Apparently, golfers have already started badgering superintendents to abandon striping in favor of the "new" Augusta look.

This is how impressionable golfers (especially private club members) can be. There's no way to reach them and make a real impact without insistent, repeated input from Johnny Miller, Ken Venturi, Jack Whitaker and the like.

You have the power, boys. Use it for the greater good.

Specify AMETEK access boxes for engineered solutions in every irrigation application.



LAKE VIEW GOLF & YACHT CLUB; Roger Packard, Architect — Larry Rodgers, Irrigation.

AMETEK access boxes let you design-in exactly the right unit for the application. You'll find round boxes in two different sizes; rectangular boxes, including a flared bottom design, in standard and jumbo sizes and with extensions for every depth; and even a valve box for depths up to 5 feet.

Lids are available in green to blend-in, purple to identify reclaimed water systems, black for electrical applications, red brick and mulch brown to blend into landscape areas. Vandal resistant

locking options include our patented snap lock and pentagon shaped bolts.

For specifications on the complete line of irrigation valve boxes and the location of your nearest dealer, contact AMETEK, Plymouth Products Division, P.O. Box 1047, Sheboygan, WI 53082-1047. Tel: 800-222-7558. (In WI, 414-457-9435). Fax: 414-457-6652.

AMETEK
PLYMOUTH PRODUCTS DIVISION

Products Manufactured From Recycled Plastics



Polyiron box
7 5/16" diameter x 29 1/2" to 64 1/2" deep



Jumbo box
14 1/2" x 20 1/2" x 12" to 18" deep



10" Round box 9" diameter x 10" deep



Economy box
6 3/8" diameter x 9" deep



6" Flared box
10 3/4" x 16" x 6" to 18" deep

WETTING AGENT

SURF-SIDE

CLAIMS COME EASY... PERFORMANCE TAKES A WHILE LONGER!



Wetting Agents Help Reestablish Greens

EXCERPTS FROM: May/June 1995 issue of THROUGH THE GREEN
Publication of the Georgia Golf Course Superintendents Association

Dave Cousart, GCS The University of Georgia Golf Course

In September of 1986, I returned to Athens to assume the duties of Golf Course Superintendent and Golf Professional at the University of Georgia Golf Course. It was a move from bermuda greens back to bentgrass. Built in 1968, the UGA Golf Course is a Robert Trent Jones design. The greens were rebuilt over a two year period between 1989 and 1990. We rebuilt nine greens at a time to USGA specifications. This is a public course averaging 50,000 rounds a year. Despite a low percolation, we still have isolated hot spots on all humps, crowns, and tiers throughout the golf course. In the spring of 1990, I decided to experiment with Montco Product's SURF-SIDE 37 wetting agent. I set up small plots on my bentgrass nursery in June of 1990. The wetting agent was applied on a clear afternoon when temperatures exceeded 85 degrees. Treatments consisted of eight, 16, 32, and 128 ounces per 1000 square feet, and were not watered in. In fact, all irrigation was withheld until the next afternoon. I wanted to put the product through the wringer on the nursery before taking it to the greens. The next afternoon I saw no phytotoxicity. The 128 ounce rate had no burn despite not watering in. I was convinced enough to treat my high spots and crowns with a back pack sprayer at a 16 ounce per 1000 square feet rate. We applied the wetting agent and hand watered these areas immediately after application. I saw immediate improvement overnight. After this success with the isolated dry spots, I decided to treat the entire green complexes. My program begins in mid-March with a 16 ounce per 1000 square feet application rate on all humps and high spots. This initial application is done immediately after spring aerification. Next, an eight ounces per 1000 square feet application is made every three to four weeks from April through mid-September. The final application is made in September when core aerification is completed. During the year, when fungicides or fertilizers are applied, a one ounce per 1000 square feet rate is applied. I saved more than 90 percent of my syringe labor budget. The need for afternoon watering was basically eliminated. During

the summer of 1993 we had to syringe less than 10 times in the afternoon. During the summer of 1994 we only had to syringe two afternoons. The use of a wetting agent has helped eliminate hard to wet areas and by treating the entire greens complex, water movement through the soil has been improved. This has decreased the need for daily irrigation and nearly eliminates the need to syringe during the day. We have saved our operation over \$7,000 per year in labor costs during the summers of 1993 and 1994. The bottom line in any golf operation is to provide the best facility for the least amount of money, and in most cases, the operation must show a profit. In my opinion, the wetting agent has definitely contributed to the vast improvement of The University of Georgia Golf Course in the last few years. Just ask the golfers.

▶ **DOUG BROOKS**, Cherry Hills C.C., CO: My native soil greens at Cherry Hills will start to show some ugly Fairy Ring if I go more than 5 weeks without a Surf-Side 37 drench! Greens are drenched at the rate of 1.5 gallons Surf-Side in 300 gallons water, covering 7000 square feet, followed by at least 15 minutes of water. The watering is not required, but helps move the 37 into the soil. The greens that have the Fairy Ring will then be followed by the Hydroject. This process seems to move the Surf-Side into the profile even better, and provides excellent masking of the Fairy Ring. The same type of drench with Surf-Side 37 is used on tees, fairway spots, bunker banks, new sod, cart traffic areas, and any other weak spot that needs a boost. In between drenches, regular applications are made every other week on greens and fairways at the rate of 2oz/M Surf-Side with 1.5oz/M iron. Great color and general health are maintained with this program. Surf-Side 37 is a great product for me and my course. I will continue to find new and useful ways to incorporate 37 into my management programs.

▶ **MARSHALL FEARING**, Castle Pines G.C., CO: Ten PGA Tour events and ten years using Surf-Side 37 wetting agent. It's made the difference between a good looking golf course and a great looking golf course. Thanks Bob for helping us look great.

▶ **TOM GRIMAC**, Tavistock C.C., NJ: Surf-Side contributed to an 80% to 85% reduction in syringing over the past 15 years. This has meant major water and labor savings.

▶ **GEORGE PIERPOINT**, Ardsley C.C., NY: My greens and tees receive 5oz/M every three weeks. Surf-Side added to my grub control program provides excellent results. For 16 years this product has worked for me.

▶ **ED PRICE**, Coeur d'Alene Resort & G.C., ID: Golf Magazine voted in 1994 Coeur d'Alene Resort & Golf Course as America's best maintained resort course. With 38 acres of bentgrass greens, tees, and fairways Surf-Side 37 has proved to be an asset in maintaining the quality of the turf. Last year we had 90 days over 90 degrees consecutively and localized dry spots on our very mature Penneagle fairways were a minimal problem - same with LDS on our greens and tees. Surf-Side 37 is the only wetting agent I trust to mix with fertilizers and fungicides - I highly recommend it.

▶ **LARRY SCHLIPPERT**, Commonwealth National G.C., PA: I have been using Surf-Side for years. The Surf-Side pellets are a great extra tool. Anywhere you need to get water to, you have this option to add Surf-Side as you irrigate. The pellets are convenient - no mixing or spilling on-site. Great for newly seeded or sodded areas.

▶ **JEFF SPANGLER**, Troon North G.C., AZ: As with air, water, and sunlight; Surf-Side has been a fundamental standard in our bentgrass management program along with deep and infrequent watering. Regular Surf-Side applications of 16oz/1000/month have allowed us to maintain consistency in our percolation rates and in our putting surface throughout drying summers and harsh winters year after year.

▶ **KEN THOMPSON**, Stone Harbor G.C., NJ: I have been using Surf-Side 37 for eight years now on fairways, tees, rough, and especially on hydrophobic sand greens. On greens I've settled into a program of approximately 3oz/M every two weeks. Fairways and rough 1gal/100 water and spot drench treat. With fertigation I mix it to 1% volume in the summer and 2% in the spring and fall. As with everything, I make adjustments to match the situation.

▶ **GORDON WITTEVEEN**, Board of Trade C.C., CANADA: Surf-Side is my favorite wetting agent because it is safe, even in hot weather! You just can't burn with it, and that's important, especially this past summer when temperatures were over 90 degrees, weeks at the time.

DO NOT USE A COMPETITIVE BLEND (LIQUID OR PELLET) WITH SURF-SIDE. THE READOUT CAN BE NEGATIVE.

SURF-SIDE PELLET (99% Active)
"Turns syringing into an art form"

1-800-401-0411
MONTCO PRODUCTS CORPORATION BOX 404 AMBLER, PA. 19002

ZAP! (30% Active)
Super Strength Defoamer

BRIEFS

**WALKER REDESIGNING DAYTONA TRACK**

DAYTONA BEACH, Fla. — Daytona has selected Robert C. Walker, Inc. of Atlantic Beach to redesign and oversee reconstruction of the North Course at the city's 36-hole facility, Daytona Beach Golf Club. Walker is also conducting a study of the South Course for future renovation. Plans and specifications are being developed and construction should begin this spring.

MARSH POINT A WHOLE NEW 18

KIAWAH ISLAND, S.C. — The revised Gary Player-designed course at Kiawah Island Resort should be ready for play this fall. The former Marsh Point



Gary Player

course, which will be renamed, closed late last year for a major renovation. Plans soon changed in favor of building an entirely new course. The par-72 layout will stretch to 6,800 yards from the back tees compared to its former 6,334-yard length. Wadsworth Construction is the builder. Virginia Investment Trust owns the resort and is financing the \$3.5 million construction effort.

GROUND BROKEN ON CC AT DC RANCH

SCOTTSDALE, Ariz. — Scott Miller of Scott Miller Design has been selected by DMB Associates as the golf course architect for The Country Club at DC Ranch. The course is under construction and scheduled to open in January 1997. It will be a private 18-hole, 6,918-yard layout.

DYE UNDERTAKES KENTUCKY PROJECT

LEXINGTON, Ky. — Don Hensley, a 49-year-old retiree from IBM in Lexington, is developing The Peninsula Golf Resort on Herrington Lake near Dix Dam in northern Garrard County. Construction is about to begin on the 18-hole public-access golf course designed by Pete Dye. Hensley said he would like to see the golf course finished by spring 1997. Danny McQueen will oversee construction.

9-HOLE OCALA PINES DUE OPEN

OCALA, Fla. — Ocala Palms, a new nine-hole course designed by Steve Newgent, is expected to be open and ready for play by late April with a full-scale opening by September. The layout will measure close to 3,400 yards from the back tees but can also be played at executive-length.

GOLF COURSE NEWS

REUNITED

Joneses tie design knot, yet remain independent

By MARK LESLIE

MURRIETA, Calif. — A renewed father-son partnership that began almost as a whim with construction of Walt Disney Co.'s Celebration golf course in Orlando, Fla., is now a legal entity incorporated as RTJ Golf Ventures.

The Robert Trent Joneses — Sr. and Jr. — tied the corporate knot after the Southern California Golf Association (SCGA) and a development group both asked them to co-design their projects.

Jones Jr. had been hired to add a new nine holes to the SCGA's Jones Sr.-designed Rancho California Golf

Course here and design an 18-hole track outside Sacramento for partners C.C. Myers and rancher Jerry Johnson. But an opportune Christmas-time visit by Jones Sr. with his son led to meetings with leaders of both groups. RTJ Golf Ventures was created and contracts with Jones Jr.'s RTJ II International were rewritten with the new firm. RTJ II International and the Jones Sr.'s Jones Companies will continue to design their own projects as well.

"Dad came out at Christmas to look over the SCGA project, and I suggested to them [developers] it might be fun to

make the grand master a part of it," Robert Jr. recalled. "It's a collaboration and a wonderful, fun experience."

Asked who's the boss, Robert Jr., who worked for his father from 1960 to 1972, dismissed the idea of being "joined at the hip like Siamese twins," saying: "No, it's arm-in-arm."

Describing a visit by his father to Disney's Celebration course — built for families — Robert Jr. said: "He said everything had good flow of line, a linksland feeling, and he was very happy."

Asked how much input his father had

Continued on next page

ASIA-PACIFIC UPDATE

Building boom continues pace

TOMIOKA, Japan — The \$200 million Lakewood Tomioka Country Club will welcome the public when the first round of golf is played here this month. The 27-hole facility will bring to 99 the number of holes Shigemitsu Omori has developed at Japan's Lakewood golf course chain.

A stand-alone course in the foothills of the Japanese Alps, 90 minutes due north of Tokyo, Lakewood Tomioka is "a breathtaking property," said golf course architect Ted Robinson, who has designed all five Lakewood facilities.

Meanwhile, in Bogor, Indonesia, the Jakarta-based Suryamas Group will open the Robinson-designed Rancamaya course this month. Also, on Korea's Cheju Island, the Robinson-designed Pinx Golf Club is now being planned. A stand-alone facility that calls for an 18-hole private course with a 9-hole public-access track, Pinx will be Robinson's first course design in Korea.

...

OSAKA, Japan — Stressing an "environmentally sound approach," Greg Norman Golf Course Design has completed the 18-hole Himeji Shirasagi course here.

...

MEDAN, Indonesia — The Gary Player Group is reporting an "overwhelming re-



The elegant 9th hole at the Nick Faldo-designed Ocean Dunes in Phan Thiet, Vietnam.

"Despite the significant earthworks (3 million cubic meters), through our 'least-disturbance' approach, we were able to maintain 40 percent of the property's pine forests untouched," said Bart Collins, international vice president of Norman Design. "The course has already received a great deal of attention in Japan as this approach has given Himeji Shirasagi an unparalleled aesthetic beauty."

Mitsui & Co. built the project.

...

sponse" to its Grand Village golf project here in Indonesia's third-largest city. The 18-hole Player design is already under construction, close to the city center. Upon completion, Grand Village will be Medan's first "international standard" golf course, according to Player officials.

Player's 18-hole Royal Jakarta project is continuing apace, as grassing is about to commence. Design coordinator Kosie Mentz, who assisted in the maintenance of the Gary Player-designed Fancourt golf course — recently voted South Africa's

Continued on page 44



Shiun Golf Club in Niigata, Japan, was a collaboration between Denis Griffiths and his then-associate Tom Johnson.

Q & A ASGCA's 50th president, Griffiths, high on future

BRASELTON, Ga. — Denis Griffiths assumed the presidency in late March of the prestigious American Society of Golf Course Architects (ASGCA). Griffiths earned a bachelor's degree in landscape architecture in 1970 from Iowa State University, then immediately went to work for the Atlanta, Ga., design firm of Davis, Kirby, Player & Associates. In 1980 Griffiths became a full partner with Ron Kirby and one of his designs, Pole Creek GC in Winter Park, Colo. was selected by Golf Digest as Best New Public Course in 1984. In 1987 Kirby left to work with Jack Nicklaus in Europe and Griffiths continued his practice as Denis Griffiths & Associates. He has worked throughout the world.

Golf Course News: As the new president of the ASGCA, what is your focus?

Denis Griffiths: My platform is to listen the best I can to where our members feel we need to be going. I feel very strongly about keeping the costs of golf course construction down. I am polling our members about where they want the society to go. But we have so many levels of individuals — a strong influx of members over the last five, six, seven years, and others who

Continued on page 48



The Joneses

Continued from previous page
on that project, he quipped: "How much input does a professor of neurology have when somebody's operating on your brain? Enough to make sure you don't die. He had quite a bit of input. He sketched a bunker here and there and sketched the 4th green, which is a classical Trent Jones Sr. green. Whenever he felt like tweaking and adding things, he did."

Robert Jr. said although the two have not worked together for 24 years, "we've talked back and forth all that time on our individual projects. He'd come by and look at one of my projects and I'd go by and play his..."

But collaborations avoided the Joneses — or vice versa — until now. "I collaborated with Tom Watson and Sandy Tatum [at Spanish Bay on the Monterey Peninsula]. Why wouldn't I want to collaborate with my own father, who taught me the basics of architecture?" Robert Jr. said.

Whether the two will collaborate beyond the three present projects, Robert Jr. said, "has a lot to do with what the clients feel will be helpful to their projects."

"My father still has a staff in Florida. And, of course, anything he may need from our staff, we'll help him in fulfilling some of his obligations for other work he was in the midst of before closing his Montclair [N.J.] office."

Jones Sr. closed that office when his longtime lead designer, Roger Rulewich, left to join another company. Rulewich will complete some of the work he had begun with the Jones Companies, while Jones Sr.'s Florida staff will complete the rest — some with RTJ II's help, Robert Jr. said.

Asked if he still learns from his father, he said: "Yes, I learn all the time. I learn from anybody who is as dedicated to the game as my father. I am a consummate vacuum cleaner on the game. I also share my knowledge and perception of the game."

...

Winchester, the Sacramento project which meanders over a 1,000-acre ranch by that name and owned by Johnson, should be under construction this summer or fall. The approval process has consumed six years, but is ready to go under project manager Linda Clifford.

Sitting at 1,500-foot elevation, it encompasses environmentally sensitive areas, wetlands, a variety of birds, and a large master-planned community.

And it already has placed smiles squarely on the father and son who are designing it.

Candia Woods renovations continue with irrigation

MANCHESTER, N.H. — Sprinkler heads located in the center of the putting greens have created an inconvenience for 30 years at Candia Woods Golf Links, the former Charmingfare Country Club, here. That problem will be cured this spring, with installation of a new irrigation system.

A Phil Wogan design set in the foothills of the White Mountains, Candia Woods was built in 1964. As was done at some other courses, sprinkler heads were installed at green-center. But when Community Golf Corp. bought the property in 1990, changes were in store. The firm has invested more than \$350,000 upgrading the

operation. Improvements have ranged from the re-design of the entrance and parking lot to renovation of the clubhouse and locker rooms and building a new pro shop, driving range and first tee.

Meanwhile, the lack of irrigation on the fairways was seen as a stumbling block for golfers. A Toro LTC irrigation system will be installed by Irrigation Systems of Maine. It will be a single-row system for the fairways, while tees and greens will be upgraded with new heads and piping. A new pump house and Black Max pumping station are included in the upgrade.

Golf course architect Al Zikorus from

Canaan, Maine, has been working at Candia Woods on an irrigation pond enlargement on the par-3 15th hole. The pond, originally having a 1.5 million-gallon holding capacity, will be close to 3 million gallons and will bring the pond into play. The fill from the excavation will be used for mounding on the 1st, 10th, 11th, 16th, and 18th holes. By doing this Zikorus has better framed holes that lacked proper contour. Definition will be achieved without penalizing errant shots, while providing a free-flowing decisive fairway.

Candia Woods Golf Links superintendent Tom Lloyd has overseen the projects.

You want a fairway mower that comes from a large family.

That's the Toro Reelmaster® family. The most complete line of choices for every climate, type of turf and budget.

Its roots go back to our first reel mower in 1922.

It spawned a family that's kept on growing because Toro innovation is non stop. To offer you the most advanced mowers for the finest quality of cut.



Reelmaster® 6500-D is the first truly mid-size fairway mower with abundant power to cut the thickest, toughest grass in all seasons.



Reelmaster® 6700-D's 7 hydraulically driven reels are controlled by a single joystick, to quickly switch to a 6 or 5 reel unit on the go.

Architects Society honors Whitten

PINEHURST, N.C. — Ron Whitten, whose writings on golf course architecture over the past 15 years have enabled the public to better understand the architect's myriad contributions to the game, was presented the American Society of Golf Course Architects' (ASGCA) Donald Ross Award here March 28. Architectural editor of *Golf Digest* and *Golf World* magazines, Whitten was given the award during the society's 50th annual

meeting here.

Whitten has just finished editing "*Golf Has Never Failed Me*," a compilation of the lost commentaries of Donald Ross. In co-authoring "*The Golf Course*" in 1981 and "*The Architects of Golf*" in 1993, with Geoffrey Cornish, as well as writing more than 100 articles on golf course design, Whitten has increased the golfer's respect, understanding and appreciation for golf course architecture and the architects who create it.

Whole In One turns Tull 9 into 18-holer

SEAFORD, Del. — Seaford Golf and Country Club, a nine-hole private facility designed in the 1940s by Alfred Tull, is expanding to 18 holes with the cooperation of DuPont and with one unique prerequisite: the need to incorporate more than 400,000 cubic yards of coal ash into the layout.

"We usually don't like to move more than 200,000 yards of material on an 18-hole project. This is twice as much material in half as much area," said Richard

Mandell of Whole In One Design Group, the course architect for the project which broke ground in early January.

Originally built for DuPont Co. members, Seaford Golf and Country Club is expanding on land formerly used by the firm.

The ash requirement was one of many site constraints in what is being looked upon mostly as a land-enhancement project. Whole In One negotiated water lines, water monitoring wells, electric lines and other existing

elements in the project.

"My design concept is to create an additional nine which was indistinguishable from Alfred Tull's original nine holes in an effort I refer to as historical compassionate restoration," Mandell said. "This requires little earthmoving, although both sites are dead flat. The only earthwork done by Tull was building up his greens, tees, and mounding around a few fairway bunkers."

Mandell is using the coal ash to create large ridges running throughout the site, creating subtle slopes, hardly noticeable to the eye.

"The easy answer would have been to create berms surrounding the property and implementing moguls throughout the design," he said. "We chose not to do that for the primary reason that it would not give Mr. Tull's original nine holes justice and would unfairly provide the membership with two distinct layouts."

The ash ridges will look mellow. Using so much fill material was only half the challenge, Mandell said. For erosion purposes, Whole In One decided to implement a 1-foot cap of native material over all ash areas. Also, some green locations were excavated first, filled with coal ash, and then topped with native material to ensure that each green complex was built on enough native material.

"This allows the superintendent the luxury of having all his greens built in the same way, of the same material," said Mandell.

The 1-foot native cap will come out of the proposed ponds. To handle stormwater on the relatively flat site, five ponds were dug — the depth of each determined by how much soil was needed for the cap.

Mandell created plateau greens, greens slightly raised above the fairway, and greens which bleed into the fairways to maintain Tull's design integrity. The bunkers are all deep, low-profile hazards with sand mostly hidden from view (further maintaining integrity of the original course).

Some adjustments were made to accommodate today's member, though. The new nine's bunkers won't be as punishingly deep as the original ones. The greens were also enlarged to accommodate more players. Mandell also created a variety of bunker positions and shapes, while maintaining Tull's design style, in order to introduce more strategy.

"Tull was very penal in designing the first nine," he said. "He has deep bunkers completely surrounding each green. Basically, his strategy is, 'Hit the green or find yourself in a bunker.'"

Expected opening date is the fall of 1997.



Rounding out Toro's Reelmaster® family are, from left, the lightweight but powerful 5300-D and 5100-D, plus the 4500-D, another proven performer.

Like the new Reelmaster® 6700-D, the first riding mower with seven hydraulically driven reels. And its cousin, Reelmaster® 6500-D, is engineered to take on thick, tough turf throughout the year.

Want a lightweight? Reelmaster® 5300-D and 5100-D are

light on their feet, but down to earth for precision performance.

Want maximum productivity and power? Reelmaster® 4500-D is your choice. Or perhaps another member of the family.

The Toro Reelmaster family. Born of our longtime partnership

with golf course superintendents. To create what you want most. Fairways of stunning beauty and peak playability.

Family values we share.

TORO

Helping You Put Quality Into Play.®

For more details, contact your Toro Distributor:

1-800-803-8676
ext. 152

CIRCLE #132

By MARK LESLIE

MIAMI — "Next year you won't see anybody shooting 20 under par" in the Doral-Ryder Open, promised golf course architect Ted McAnlis.

Speaking a day after Greg Norman came close to that in winning the tournament with a 19-under-par, McAnlis was looking forward to working with PGA Tour pro/designer Raymond Floyd in a restoration of Doral's Blue Monster Course that will considerably toughen the track.

The contractor, MGI Inc. of

Minus-20 a thing of the past at Doral, promises McAnlis as remodeling begins

Clearwater, which renovated the Gold Course last year, will begin work on the Blue Course on April 1. A December reopening is anticipated, according to McAnlis.

"We are theoretically restoring it, although we will be lengthening it from 6,939 to over 7,160 yards from the tournament tees," McAnlis said. "It doesn't have any real long par-4s now. The longest

is 427 yards. We could end up with at least one par-4 over 450 yards."

Saying restoration of a famous course like Doral is "more politically sensitive" than others, McAnlis said, however, that "Raymond has the stature among his contemporaries and peers to be able to make the changes he feels are necessary and not be subject to too much criticism.

We're adding some bunkers on some fairways. But the most significant change will be to the length and getting the greens back to original elevations and shapes.

He referred to Floyd's "good knowledge of what the golf course used to be and some good ideas on how to restore it" and added: "We're opening up some bunkers that have closed in over the years. And

we will cut down on the size of the islands."

...

In another project in Fort Myers, McAnlis is designing an 18-hole golf course for a community called Westminster.

The course will be semi-private, with memberships open to residents of the accompanying development.

The virgin land is perfectly flat, McAnlis said, so he will be elevating several tees while building a track that will measure 6,810 yards from the back tees.

CAUTION! You May Be Making Your Greens Water Repellent!



Use

IAQUATROLS
AQUEDUCT™
SOIL SURFACTANT

To TREAT Water Repellency Problems Associated With Topdressing.



Most topdress mixes are made up of sand and/or peat, both of which may be very water repellent. Water repellency contributes to poor water movement into the soil profile. AQUEDUCT enhances the penetration of water into the soil profile, and reduces the water repellent characteristics of the topdressing mix.

- Reduces water repellency of sand and/or peat in topdress mixes.
- Reduces turf decline due to wilt and localized dry spots.
- Minimizes hand watering following topdressing.

IAQUATROLS
Formulating For Effectiveness

5 North Olney Avenue
Cherry Hill, NJ 08003 U.S.A.
1-609-751-0309 • FAX: 1-609-751-3859

For more information Call
1-800-257-7797

CIRCLE #133

Trevino, Player ink design pacts at Grand Traverse

ACME, Mich. — Grand Traverse Resort Village officials have signed Gary Player and Lee Trevino to design Resort Village's third and fourth golf courses.

The Player and Trevino courses will join the Resort Village's first signature track, The Bear, which was designed by Jack Nicklaus. When the courses are completed, Grand Traverse Resort Village will be the only site in the world with signature designs by the renowned triumvirate, according to Chief Executive Officer Mark Mitchell.

"These next steps in our master plan are very important as we continue to establish Grand Traverse Resort Village as one of the nation's premier recreational residential communities," Mitchell said. Player, one of only four golfers to win the game's grand slam and the designer of over 100 golf courses worldwide, commented, "Seeing one of my courses right next to those designed by my long-time professional colleagues Jack Nicklaus and Lee Trevino will be a real pleasure. I'm equally excited about creating a course in such a beautiful part of the world."

Trevino echoed Player's enthusiasm, saying, "Gary, Jack and I have known each other and competed against each other for many years and I welcome the opportunity to showcase my design concepts along with theirs in a truly beautiful setting and with a first-class resort."

Nicklaus, who presided over the opening of The Bear in June of 1985, said, "I'm delighted to welcome two old friends to Grand Traverse. We've shared a lot on the golf course over the years and now we're sharing in the success story that's become Grand Traverse."

Construction of the Player course, his first in Michigan, is expected to begin late this year or early in 1997, with completion in 1998. A time frame for Trevino's course is undetermined.

GOLF COURSE NEWS

Nicklaus designs public course

FAIRVIEW HEIGHTS, Ill. — Responding to the demand for more high-quality daily-fee golf courses in the St. Louis area, Jack Wolfner and Wolfner Golf Management Inc. announced that Jack Nicklaus will design Stonewolf Golf & Residential Community. The course is targeted to open next September.

In addition to the Nicklaus signature course, this project will feature 188 homes scheduled to begin construction in September.

The 6,900-yard, 18-hole course and 188 homes are to be constructed on 284 acres. The land is partially open but mostly wooded and has a number of sharp elevation changes which will make for interesting golf and unique residential development.

Sanford turns Sawmill negatives into positives

SAGINAW TWP., Mich. — Sanford Associates has unveiled design plans of the new Sawmill Golf Club, currently under construction here.

"The site constraints (wetlands, floodplains, creeks, upland forest) were viewed as a positive influence to incorporate the golf course and residential community into a natural setting," said course architect John Sanford.

The construction entails specialty clearing and grading to enhance the natural features of the property. Some 1-1/2 acres of the existing 20-acre wetlands will be impacted and that will be replaced with six acres of man-made wetlands strategically located throughout the course. Sanford Associates worked closely with R.C. Associates Environmental Engineering and the Michigan Department of Natural Resources to formulate a plan that would work for everybody.

"We feel it is a win/win situation when the owners get the golf course and lot yield they need to make the project fly, and state environmental officials endorse a mitigation plan that will enhance the existing wetlands," Sanford said.

The course will play through three distinctly different settings. Eight holes are routed in and around the wetlands. Four holes will border a natural creek and floodplain area that will require accuracy and placement of each shot. Six holes are located in previously farmed fields and will offer several heroic shot-making opportunities.

The practice facility will boast 10 acres with target greens, chipping area, and an 18-hole putting course.

YOUNG ADDS CAD DESIGNER

WATKINSVILLE, Ga. — Mike Young Designs has hired Thad Bell as a computer-aided designer. Bell, who holds a landscape architecture degree from the University of Georgia, most recently worked for Nicklaus Design.

GOLF COURSE NEWS

Palmer designing Lakewood Range track

LAKEWOOD RANCH, Fla. — Legacy, Lakewood Ranch's first golf course, is being designed by Arnold Palmer.

"We took the name first from the legacy of the Schroeder-Manatee Ranch and its long, productive history in the local economy," said Roger Postlethwaite, president of SMR Communities. "The same can be said for the legacy of the Uihlein family, one of America's greatest families and founders of the Schlitz Brewery. To that rich land history we added golf's legendary player, Arnold Palmer, and The Legacy Golf Course at Lakewood Ranch was born."

Slated to open this fall, The Legacy will be an upscale, 18-hole daily-fee course. It will feature

five "signature holes" including an island hole with its fairway and green completely surrounded by the waters of a 160-acre lake.

"The course will be a virtual nature preserve by the way we're tucking it alongside the existing forested wetlands," Postlethwaite said.

"In addition to being sensitive to the environment, the Legacy Golf Course at Lakewood Ranch will be a wonderful blend of classic golf design in a natural setting," Palmer said.

Expansive fairways and challenging hazards will test the most accomplished golfers yet will be approachable for casual players. The clubhouse will feature a full dining room, pro shop and locker rooms.

Cool tools for hot spots.



If you've been using a pitchfork and hose to treat those high and dry trouble spots on your tees and greens, our new **Spot Doctors** will make your life considerably easier. Whether you use the **tine unit** for deep penetration or the **roller unit** for shallower treatment, you'll appreciate the ease and efficiency they bring to the job. Both quickly attach to a hose fed by your irrigation system. ■ The tine unit works like a combination pitchfork and syringe.

Just place the tines on the spot and squeeze the pistol grip. There's no need to push or force the tines into the ground. Water pressure helps them slide through the soil like a hot knife through butter—delivering water to a depth of up to six inches. ■ The roller unit can be wheeled back and forth over dry spots like a vacuum cleaner to distribute water to a depth of up to two inches. Both units can be used with a surfactant applicator to further increase soil permeability. Cool! ■ Spot

Doctors are the latest in our long line of specialty tools designed specifically for golf and sports turf professionals. For all the details, simply contact your nearby Standard Golf distributor and ask about Spot Doctors. They're the cool tools for hot spots!

**Standard Golf's
new Spot Doctors
make it easy to
cure problem dry
spots on tees and
greens.**

**STANDARD
GOLF** Pro-Line

Standard Golf Company
P.O. Box 68
Cedar Falls, IA 50613 U.S.A.
319-266-2638 FAX 319-266-9627

Canadian Hall honors Cornish

OAKVILLE, Ont., Canada — Golf course architect Geoffrey Cornish will be inducted into the Canadian Golf Hall of Fame this year, Keith Rever, chairman of the Hall of Fame has announced.

Cornish and co-inductees Jocelyn Bourassa and Claude Pattemore and Cornish "have made outstanding contributions to the game in this country and they will be superb additions to the hall," Rever said.

Cornish, 81, has designed or remodeled more than 200 golf courses throughout North America since 1935, including Ashburn Golf Course in Armadale, N.S.; Club Summerlea in Dorion, Que.; and York Downs Golf Course in Markham, Ont.

A former colleague of architect Stanley Thompson, Cornish also collaborated with Ronald Whitten on *The Golf Course* and *The Architects of Golf*, a book that traces the history of golf architecture throughout the world.

Cornish is a past president (1971) of the American Society of Golf Course Architects and a recipient of its Donald Ross Award for outstanding contributions to golf and its architecture, and distinguished service awards from the Golf Course Superintendents Association of America and the National Golf Foundation.

Official ceremonies will be scheduled at times convenient for the inductees.



Photo by McKenzie and Dickerson

GOING TO BATTLE

Myrtle Beach's newest golf course, *Man O' War*, intends to challenge golfers with an 80-acre manmade lake that winds around and through the area, defining holes and becoming one of its most punishing hazards. Large bentgrass greens, all over 7,000 square feet, and a network of bridges are defining points of this course.

Litten, Viola team to remodel Palms GC

POMPANO BEACH, Fla. — Palm-Aire Resort Management Corp. has called on Karl Litten and Lorrie Viola to remodel the Palms Golf Course, one of four championship courses at the resort community.

Scheduled to begin in mid-April, the project includes reconfiguration of greens and bunkers, regrading, leveling and re-

planting of tees, regrassing numerous fairways, and installing a new irrigation system.

Palm Golf Course was originally designed and built in 1959 by William Mitchell. It is known for its large, undulating, bunkered greens with lateral and parallel water hazards bordering spacious fairways.

Eldredge heads new GCBAAslate of officers

CHAPEL HILL, N.C. — The Golf Course Builders Association of America (GCBAAs) has announced the election of new officers and a new board of directors.

Serving two-year terms are President Paul Eldredge, of Wadsworth Golf Construction Co., Vice President Bill Kubly of Landscapes Unlimited, Inc., Secretary Mike Harrington of HARCO Fittings and Treasurer Jeff Gredvig of John Deere Co.

Directors elected to their first two-year terms are Glenn Caverly of Golf Course Construction, Inc., Frank Hutchinson of GolfWorks, Inc., Rick Lohman of The Toro Co., Joseph Niebur of Niebur Golf, Inc. and Gary L. Wieseler of Prince Contracting Co.

Directors re-elected for one-year terms are Larry R. Brown of Atlantic Golf Construction, Ltd., Rick Elyea of The Scotts Co., Christine Faulks of Greensmix, S. Gene Giannulli of Environmental Golf, Inc., Jeff Harstine of Central Florida Turf, Inc., Doyle Jacklin of Jacklin Seed Co., O'Brien McGarey of Dye Designs International, Rod McWhirter of Rain Bird and David Truttmann of Legacy.

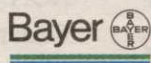
Serving a two-year term and continuing on the board is Gary Paumen of Kenova Construction Corp.

THE FALL OF SUMMER PATCH.



Controlling summer patch is no sweat with preventative applications of BAYLETON® Fungicide.

To find out more, contact Bayer Corporation, Specialty Products, Box 4913, Kansas City, MO 64120. (800) 842-8020.



Bentgrass SOD

- Grown on sand or washed
- Penncross, Pennlinks, Crenshaw, Dominant, SR 1020
- Spring 1996 inventory available for immediate delivery anywhere in the US and Mexico
- Installation available

WEST COAST TURF

GROWERS AND
INSTALLERS OF
PREMIUM QUALITY
SOD AND STOLONS

P.O. Box 4563, Palm Desert, CA 92261 (800) 447-1840

Flatt helps city with innovations to reduce course construction costs

MOUNTAIN GROVE, Mo. — The 10-hole addition to Randel-Hinkle Municipal Golf Course has been completed and is tentatively scheduled to open this fall. The addition to the existing nine-hole track was designed by Larry Flatt of Flatt Golf Services, Inc. (FGS) of Overland Park, Kan.

The approach to developing the course was unique. The total budget for the additional holes was set at \$400,000 by the city council in the summer of 1995. Certificates of Participation, backed by a recent half-cent sales tax and sold by Piper-Jaffray, Inc. of Kansas City, provided the financing.

Bids were sought from golf course contractors in Missouri and Arkansas, but because of the size of the project and an already active golf construction environment, only one bid was received and it exceeded the budget.

Unique financing package signed

STATESVILLE, N.C. — Evan H. Dockser, executive vice president of Bethesda, Md.-based Zuckerman Kronstadt Dockser Golf Services Inc., announced the completed funding of Buffalo Shoals Golf Club, LLC here.

The \$3.25 million development, which will be known as Buffalo Shoals National Golf Club, is the result of a joint effort by Zuckerman Kronstadt Dockser and local partners.

The funding package completes a three-year planning process and has put the project into phase 1 of construction.

Financing was secured through a combination of private investors and a \$1.75 million construction and term loan provided by The Bank of Granite in Hickory, N.C. The golf course is scheduled to open in spring of 1997.

Buffalo Shoals National will be an 18-hole, semi-private golf course whose goal is to maximize daily-fee play. Limited memberships will start at \$3,500 and the rate structure will be competitive with other golf courses in the area.

Buffalo Shoals National has retained Gene Bates Golf Design of West Palm Beach to provide architectural support on the design and construction of the golf course. The golf course will play 7,000 yards from the tips and will be challenging and enjoyable for players of all skill levels from all tees. The club will offer a state-of-the-art practice facility and has negotiated to have a national teaching facility at the course.

Zuckerman Kronstadt Dockser will manage the course and will oversee all functions from day-to-day operations to marketing and public relations.

Flatt suggested to the city council that local contractors could build a quality course and that FGS would commit to spending additional time on site to insure a quality final product. It was also suggested that some savings could result if the city bought construction materials. Flatt sought bids for all the materials needed for the project and negotiated contracts with contractors and sub-contractors for the work.

The project was blessed by

good weather last fall, a fairly open winter and a dry spring, permitting all the work to be done and seeding and mulching completed.

The prime contractor was Courtney Excavation. Golf course superintendent Lee Davis is involved in the grow-in process while preparing the existing nine holes for the new season.

...

Meanwhile, Fulton (Mo.) Country Club has adopted its

first plan since the course was created as a nine-hole sand green track in the early 1900s. FGS developed a plan that included new tees, fairway grading and drainage, mounding for fairway landing areas and green-side surrounds, fairway and green bunkers, an irrigation reservoir, irrigation well and a new fully automatic fairway, greens and tees irrigation system.

Contracts have been awarded to Mid-America Golf Construction Co. of Fulton for the

earthwork, drainage and shaping; Don Burgess Ditching of Warrenton Mo. for installation of the Toro irrigation system; and David Schnell Drilling, Inc. of Rocheport, Mo., for the 1,000-foot-deep irrigation well. A Carroll Childers pump station will be installed. Grassing will be done by golf course superintendent Joe Farris.

The \$230,000 in improvements to the course are being financed by a dues increase passed by the membership last fall.

Answering your concerns about the environment, operator safety and precision application.



SPRAY STAR 3000



THE LARGEST AND SOFTEST FOOTPRINT TURF TIRES OF ALL



LIGHTWEIGHT AUTOBOOMS FOLD FORWARD FOR SAFE TRANSPORT



SPRAY STAR 1600

Move up to Spray Star... the first choice for ecological and safety engineering... with computerized controls for the most precise applications... hydraulic power steering for superior maneuverability... the lowest profiles for maximum stability and visibility... virtually impervious tanks... plenty of power... big soft touch tires... a wide array of safety features. Spray Star - setting new standards.

ALWAYS OUT FRONT
SMITHCO
WAYNE, PENNSYLVANIA 19087



Current Philippine development mirrors other boom countries

By MARK LESLIE

MANILA, Philippines — Hot. Hot. Hot. This island nation is busting with new golf course construction. If anyone thought for a moment that The Philippines had enough golf courses when The Orchard Golf and Country Club opened courses designed by Arnold Palmer and Gary Player to rave reviews, consider this: More than two dozen courses are under construction or in planning at this moment. "The Philippines is our most

active market at the moment," said Mike Rielly, international vice president of International Management Group (IMG) which represents many Tour professionals. "We have announced 12 new projects there in the past 12 months, three or four of which are Arnold Palmer designs... Palmer and Gary Player remain very active, with Nick Faldo, Bernhard Langer and Isao Aoki spending more and more time with golf course design."

Add to the mix six more being designed by Jack Nicklaus, two more by Robert Trent Jones Jr., another two by J. Michael Poellot, and others by Ron Fream of Golfplan, Fred Couples and Tom Weiskopf.

The area south of Manila and Cebu, one of the nation's most southerly islands — offering cooler temperatures because of their elevation — especially are drawing golfing tourists from Japan, Taiwan, Singapore — even The Philippines itself.

"It is a hotbed of activity," said Steve Schroeder, a vice president with RTJII International. "The driving force is good weather, good sites and a cheap cost of living for people on vacation. Besides the two courses we have under construction, we are negotiating another one south of Manila. When these are all built, RTJ will have 10 courses in The Philippines."

A rundown of work in progress shows:

- Nicklaus and son Jack II

have three courses under construction and three in the design phase — all 18-hole tracks. Being built are Antipolo in Manila, Liloan in Cebu and Trece Martires in the Province of Cavite. The others: Cagayan D'Or in Mindano, Looc Cove on the Island of Luzan and Laurel Batangas in Tagatay City.

- RTJ is building Pueblo de Oro in Mindanao, a small island south of Manila, and Puerto Azul, an hour outside Manila on the western coast. Owned by Regatta Properties of Manila, Pueblo de Oro is an 18-hole private country club and residential community on roughly 370 acres. Under construction now, it is expected to open in 1997.

The Jones course at Puerto Azul will be its second 18. The property is a major resort area in a valley with some coastline.

- Poellot's JMP Golf Course Design is building a 27-hole course at Mount Malarayat Resort, a golf course community in Lipa City an hour south of Manila. The first nine holes, and possibly 18, are expected to open in December, while the third nine should open in December 1997. Bob Moore of JMP said it will be a private membership course with access to resort guests.

A JMP project under planning is on Cebu, straddling the island's central mountain range and boasting dramatic views of the ocean both to the east and west. Another 27-hole project, it will break ground this year with a projected 1998 opening.

Active Realty is developing both JMP projects.

- Weiskopf has been given the charge of building the best 18-hole course in The Philippines. A group of Filipino businessmen bought the property 20 miles south of Manila for a by-invitation-only country club, with limited housing.

Senior designer Dave Porter said a practice range will be built this spring before the rainy season, and when construction restarts, sod from the range will be available. A late 1997-early 1998 opening is envisioned. A major river borders the property, posing dramatic drop-offs, and several minor creeks and streams cross the property, Porter said.

- In Carmona, south of Manila, Fream has designed the first 18 holes of a country club-meeting center resort and residential community that will include a Shangri-La hotel and more than 2,000 homes. A third nine holes will become a daily-fee track, using an otherwise unusable landfill site somewhat apart from the 18-hole course.

- Palmer Course Design has two courses under contract, but not yet under construction, and is negotiating on three more.

- Player has signed an agree-

Continued on next page

GOLF COURSE NEWS

RAIN BIRD
GOLF IRRIGATION

Conserving Nature's Resources Since 1933.™



Open a Window of Opportunity

Rain Bird's MAXI® for Windows™
Makes Irrigation Management Easy.



No three-day training marathons. No complicated instructions and no difficult line commands. Just one growing family of incredibly easy-to-use central control systems.

Introducing **Stratus™** and **Nimbus™**

—the MAXI central control systems designed to take irrigation management to new heights. Developed



for the popular Windows operating system, the MAXI for Windows series provides an intuitive, graphical way to manage your irrigation system. Stratus and Nimbus can easily be learned and operated, even by computer novices. Don't let this opportunity pass you by.

RAIN BIRD
GOLF IRRIGATION

Call your Rain Bird Golf Distributor at 800-984-2255.



The 13th green and sweeping 14th fairway behind it exhibit the dramatic qualities at Golden Pebble Beach, an 18-hole track in Dalian, China, designed by Peter L.H. Thompson of San Rafael, Calif.

Asians building to meet demand

Continued from page 37

best maintained golf course — is coordinating the final phase construction. A 1996 opening is planned.

MINDANAO, The Philippines — Construction is set to begin on a pair of Robert Trent Jones Jr.-designed projects, one here on the archipelago, the other in the People's Republic of China.

Routing plans have been completed and building should commence by early 1996 here on Cagayan de Oro. The 18-hole resort is located near the airport on the island of Mindanao south of Manila. Regatta Properties of Manila is the developer. Plans are to open the golf facility in late 1997.

Meanwhile, Hainan Island will be the site of Jones' latest Chinese creation, Ya Loong Bay. Jones and developer Henry T. Fok Group of Hong Kong are working their way through the planning process. Full-scale construction on the 27-hole resort course will begin later this fall. A late-1997 opening is planned.

JOHORE BAHRU, Malaysia — Nicklaus Design christened two Asia-Pa-

cific courses in December: Emerald One Golf & Country Club in Bogor, Indonesia, and Borneo Golf Resort in Kota Kinabalu, Malaysia.

Another eight Nicklaus designs, including The Legends Golf & Country Resort here in Johore Bahru, Malaysia, should be ready this year.

The Legends is a 1,200-acre resort in southern Malaysia that will eventually include four, 18-hole courses. Nicklaus, Arnold Palmer and Gary Player will each design one. The official opening is slated for mid-1996.

Other Nicklaus projects set to open in 1996 are Juredong Resort in Nagara Brunei Darussalam, Brunei; Borneo in Kota Kinabalu, Malaysia (Jack Nicklaus II); Antipolo in Manila; Lakelands in Surfer's Paradise, Australia; Mission Hills in Sitzen, China; Bintan Lagoon on Bintan Island, Indonesia; MacGregor and Oshige country clubs in Japan.

KUNSHAN, Peoples Republic of China — The first 18 holes of the planned 36-hole Grand Shanghai Golf Club are scheduled to open in June. Designed by

Golfplan, the Ronald Fream architecture group, the Grand Shanghai project is located on a 400-hectare site here in Kunshan.

Fream also has two projects underway in Brunei.

A major renovation is planned for Pantaimentiri Golf Course at Bandar Seri Begawan. Fream designed the original course in the early 1980s. "But golf technology has advanced tremendously since then and we have the opportunity to make some changes," Fream said. Among the improvements will be recontoured fairways, subsurface drainage and a 30-centimeter sand base that will be applied under all fairways.

The second Brunei project is an 18-hole daily-fee course planned near the Brunei liquefied natural gas loading plant at Lumut. Construction of the seaside layout is scheduled to begin early this year with a tentative opening slated for late 1997.

Golfplan is also wrapping up the design phase for a 36-hole resort course called Ravenswood Sanctuary in Mandurah near Perth, Western Australia. The 1,200-acre resort and residential community has been going through the environmental permitting process for the past 18 months.

Plans are to begin construction this summer.

The Oberoi Hotel Group has contracted with Fream to design golf courses as part of a pair of five-star resort operations planned in India. The first, Nandi Hills near Bangalore, will include a 27-hole layout scheduled to begin construction early this year and to open by mid-to-late 1997.

XIAMEN, Peoples Republic of China — Southern Wood, a Lee Chang-designed course in Xiamen, opened for play late in December. The 18-hole resort layout includes a driving range and practice facility.

Chang, a former associate of Willard Byrd, has several other projects in various stages of completion in mainland China.

After a lengthy delay, construction of the Royal Fortune Golf Club in Guilin began in October. The 18-hole resort course is being developed by FIDE International of Taiwan and is scheduled to open by mid-1997.

An exclusive private course called Shun Feng Golf Club started construction in December. Shun Feng Construction of Taiwan is the developer. The course should be ready for play by summer 1997.

Construction also began last month on San Shui Spring Golf Club in Guangzhou, China. The first nine holes could be ready for play next summer, but the official opening for all 18 holes will not occur until mid-1997. Kary Enterprises of Hong Kong is the developer.

MANILA, The Philippines — Golf course developers in The Philippines continue their commitment to "signature designs" with two new courses in the General Trias area, south of Manila.

Sta. Lucie Realty, developer of the highly successful Orchard courses that hosted the 1995 Johnny Walker Asia Classic, are set to begin construction of Nick Faldo and Isao Aoki courses side by side — the first in The Philippines by each designer.

Construction will begin in November, with potential openings as early as January 1997.

Philippines busy

Continued from previous page

ment to design an 18-hole course in the picturesque highland city of Baguio, a city famous for its cool climate and university. The developer, Santa Lucia Realty, also developed the top-rated Orchard Golf and Country Club near Manila, which features an 18-hole Player-designed course and another 18 holes by Arnold Palmer.

Meanwhile, Alta Vista Golf Club in Cebu and Puerto Azul Golf & Country Club in Cavite are under construction.

Aoki, Faldo and Norman are each designing 18 holes for Eagle Ridge in General Trias, while Langer is the architect with IMD for an 18-hole track at Riviera Golf & Country Club in Silang-Cavite and Weiskopf is designing 18 at The Country Club in Canlubang.

The notoriety of Filipino golf is apparently spreading — both through satisfied tourists and via television.

IMG's Rielly attributed Palmer Course Design's success in The Philippines as largely due to "the excellent reviews" it received at its Orchard Golf & Country Club, site of the 1995 Johnnie Walker Classic. Likewise, audiences watched the Dunhill Masters, held on Palmer's Emerald One in Jakarta last November.

GOLF COURSE NEWS

BROUWER IS THE POWER IN VACUUMS



BV-85 AND BV-138 POWER VACS

Whatever your need in vacuums, Brouwer delivers. From the mid-size BV-138 Vac that's easily maneuverable in tight spaces, through to the BV-85 Vac, the largest capacity vacuum on the market today, you can trust Brouwer for the ultimate in efficiency and reliability.

BROUWER
TURF EQUIPMENT LIMITED

289 N. KURZEN ROAD • P.O. BOX 504 • DALTON, OH 44618-0504 • 216-828-0200 • FAX 216-828-1008

GOLF RANGE SEMINAR SET

MIDLOTHIAN, Va. — Forecast Golf Group, Inc. will conduct a Golf Range Development Seminar at Crystal City Marriott in Arlington, May 18 and 19. The May 18 classroom schedule is from 8 a.m. to 5 p.m. The second day will consist of a field trip to an award-winning driving range. Topics to be covered include: market analysis, site selection and evaluation, approvals, leasing, design, construction, equipment, business plan, financing, operations, and financial performance case studies. For further information, contact Forecast Golf Group, Inc. at 804-379-5760.

Point-counterpoint: Brauer & Griffiths

Continued from page 1

upscale daily-fee. I think we'll hit a wall [of those courses] before long. Most of the older golf courses are saturated, and I think we're starting to price people out of golf.

"The upscale golf course phenomenon has been great for the industry. But that translates to \$35 to \$50 green fees, and that is out of reach for a lot of people."

"My high-end budgets [of the past] have become my low-end [budgets]," said Brauer. "Clients' like-to-haves have been transformed into gotta-haves. Irrigation costs have doubled and we've added more curbing, more cart paths, sod, wider clearings and the grassing that goes with it... And drainage costs have gone from \$50,000 to \$250,000."

"Greens construction and irrigation system prices have skyrocketed," Griffiths added.

But where can costs be cut, and, if so, will that harm the developer in the end?

Brauer and Griffiths disagree about the difference between the quality of a \$1.7 million and a \$3.2 million golf course and what economic impact it has on those two imaginary courses.

Saying that in the last five or six years his firm has designed only one golf course that cost under \$3 million, Griffiths added: "I don't think the sacrifice in quality of golf is as significant as we make it out to be between a \$1.7 million and a \$3 million course."

CARS AND CART PATHS

But Griffiths' prototype \$1.7 million course is built without cart paths, and Brauer countered: "Whenever I've built a course without full paths, they've been added later. If I hear anything from past clients, two years later they say they should have put in full paths. The market demands cart paths. And those paths pay for themselves in a couple of years."

"Not since the 1990s arrived have we not recommended cart paths," Griffiths said. "It's a dollar-driven issue. But, again, it adds to the green fee."

"Also, if I build a course without cart paths I can always add them in the future when I have the finances. At least I have the course in the ground."

THE 'LOOK'

"To me, the new courses have to compete on the perception of quality," Brauer said. "And you only get one chance to make a first impression. You can't go back to those days of great [Donald] Ross golf courses without paths and irrigation. Today's golfer expects more."

"But it's the wrong perception to say, 'If I don't have USGA-spec greens and wall-to-wall irrigation I'm getting less of a golf course,'" Griffiths said. "The look of a \$1.7 million and a \$3 million golf course can be very much the same."

True, Brauer said, "shaping doesn't cost that much."

"To make this [\$1.7 million project] work, it takes a reasonable site," Griffiths said. "We can massage and finesse the routing, and we can really minimize the cost. But if we're struggling on 120 acres with 20-percent slope it just isn't going to work."

"One reason costs have gone up so dramatically is because we're building on such difficult sites."

"Yes, if you do bad routing you can lock yourself into some big money, as opposed to, say, \$130,000 [in clearing costs]," Brauer added.

...

Griffiths assembled costs for constructing two proposed golf courses, reducing expenses in such ways as shorter cart paths, fewer sprinklers and less sod.

"I budgeted according to the standards I want," he said. "But I may not be able to afford some things, USGA-spec greens, for instance. Less than 10 percent of the golf courses in the country have USGA greens."

One thing both men agreed on: The best time to build a golf course is today. Tomorrow it's going to be more expensive.

Griffiths' \$1.7M Method unveiled

Denis Griffiths spelled out his method for building a \$1.7 million course. These guidelines, he said, will not suit all situations and most often will be in less densely populated areas where land is less expensive, average weather conditions support turfgrass growth and annual play is not expected to exceed 35,000 rounds.

The guidelines follow:

- Select a buildable site with minimal limitations and ample acreage suitable to golf.

- Find property that is not completely wooded to reduce clearing costs.

- Lay out the course to take maximum advantage of the site characteristics and minimize disturbance.

- Secondary clearing can be done by the maintenance staff during off-season as the course matures.

- Minimize earthwork, topsoil and erosion-control requirements by fitting the course to the terrain and using existing contours for the majority of the fairways.

- Use a combination of drainage techniques, including positive surface drainage, more frequent storm occurrence data for pipe sizing, grass-lined water courses, farm swales and sheet drainage.

- Locate greens in areas conducive to growing turf and provide positive-draining putting surfaces. Select the type green construction that best fits the budget and course program using materials that are readily available and cost-effective.

- Do not compromise shaping on features, in that way creating a product similar to upscale, resort and private facilities.

- Limit sand bunker construction, using grass bunkers, with the opportunity to convert some to sand later.

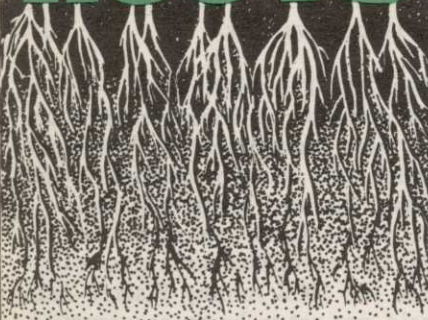
- Use the best available on-site topsoil to plate positive surface-drained tees. Do not limit the area or number of tees.

- Reduce turf areas if possible without affecting playability. Do not modify grassing specifications to save cost by extending grow-in.

- Use locally available sod with flexibility in type and purity.

Regal Crown®

DEEPER ROOTS



MINIMIZE DRY WILT AND WINTER DESICCATION

Golf Course Superintendents, Turf Grass Managers, Sod Grass Growers and Nurserymen are praising the results of Regal Crown.

Regular use of Regal Crown root growth stimulator exhibits phenomenal results. Turfgrass types such as bermuda, bent, zoysia and others develop more roots that are healthier and penetrate deeper. More roots imbedded deeper into the soil means better nutrient and moisture up-take creating thicker, greener tops.

Regal Crown is a blend of hormones specifically designed to promote root growth in turfgrasses and ornamentals. Used regularly, Regal Crown roots can minimize hot weather dry wilt stresses and winter desiccation.



Regal Chemical Company

P.O. BOX 900 / ALPHARETTA, GA 30239
PHONE 404-475-4837 / 800-621-5208

Magnesium For Healthy Green Turf

ProMag™ 36 is a combination of magnesium sulfate and magnesium oxide, supplying both immediate and long term nonburning magnesium availability.

ProMag 36 is the choice magnesium in microprilled form necessary to balance calcium and potassium in the soil. Such nutrient balance increases root mass resulting in healthy green turf.

ProMag 36 is versatile, allowing direct application or blending with other plant food ingredients in a wide variety of formulations.

Call 800-648-7400 for your nearest distributor.



Martin Marietta
Magnesia Specialties

P.O. Box 15470 • Baltimore, MD 21220-0470 USA • 800-648-7400

Dye Int'l designs Desert Pines GC

LAS VEGAS, Nev. — Ground has been broken on the new \$12 million Perry Dye-designed Desert Pines Golf Course on land formerly known as Nature Park.

Cynthia Dye McGarey of Dye Designs International will landscape the golf course. McGarey will help create a pine forest on the course featuring thousands of specimen pine trees ranging from 10 to 35 feet in height.

The 100-acre course is scheduled to be completed by December. It will be 6,800 yards long and feature nine holes on water. There will also be a lighted driving range, a state-of-the-art golf academy and restaurant/banquet facilities. The course will have large greens, short green-to-tee walks, and special forward tees for juniors, ladies and seniors.

Elkington, Swayze eye golf landscaping niche

By J. BARRY MOTHES

HOUSTON, Texas — Australian pro Steve Elkington has a reputation for being something of a modern renaissance man.

Besides a silky smooth, classic golf swing, and a taste for understated, elegant clothing, Elkington, who once received an art scholarship, also nurtures an elaborate collection of flowers, bushes and trees at his Houston home and has a cultivated eye for detail and aesthetics.

Now, Elkington wants to take that flair and bring it to everyday golf courses. He calls the concept "golfscaping" and, along with associate Jack Swayze, a longtime professional arborist, he's launched an intriguing, if still untested new business called Major Landscapes.

The more predictable diversion for professional golfers in recent years has been to open "signature" golf course design operations. Arnold Palmer, Jack Nicklaus, Tom Weiskopf, Ben Crenshaw, Gary Player, Fuzzy Zoeller, Johnny Miller and more recently Davis Love, Nick Faldo and John Daly are all examples of this. It's probably not a coincidence that all of them, with the exception of Love, have also won at least one of professional golf's four major grand slam events.

And now comes Elkington, the winner of last year's PGA Championship at Riviera and one of the rising stars on the Tour.

Elkington, however, isn't focusing on designing golf courses. Not yet anyway. Instead, he and his associate Jack Swayze have launched a company on the concept of "golfscaping"—in essence, landscaping a golf course from a professional, expert perspective.

Golfscaping, in Elkington and Swayze's vision, means integrating grasses, plants and trees onto a golf course in a way that not only increases the natural beauty and aesthetic experience of playing the course, but also makes the golf course healthier and easier to maintain for the superintendent. For existing courses, they said "golfscaping" can revitalize the appeal and solve maintenance problems.

Elkington, 33, has had a life-long interest in horticulture. A recent profile of him in *Sports Illustrated* was titled, "In Full Bloom." He is the master designer behind Major Landscapes. His associate, Swayze, has worked in and closely with the golf course industry for more than 23 years. For the last 20 years, Swayze has worked out of the Houston area for Davey Tree Company. One of his frequent tasks was helping golf course superintendents diagnose problems with trees, plants and turf.

Swayze said a chronic problem on new and existing golf courses is the overplanting of trees.

"Planting trees is always a

popular program," Swayze said. "But maintaining trees is always put on the back burner. If you put it in the ground, somebody has to take care of it. People usually don't take into consideration the maturity of a tree. You design with a 10-year plan but what do you do with them in 15, 20 years. Trees become sacred."

Something many golf course designers and even greens committees fail to consider, said Swayze, is that trees planted or left along fairways grow at an

accelerated rate.

"They're getting aeration, fertilization, irrigation," said Swayze. Those faster-growing trees also compete directly with the turf that surrounds them for water.

"One thing I've noticed in the south is that you get a lot of live oaks planted on the course and it's tough to grow turf under them," said Swayze. "They plant them along the fairway and they get bigger over time and they can kill the turf, not to mention block a lot of shots."

Major Landscapes was launched last July. It has yet to sign on to a full-blown project, but Swayze said the company is very close to working on a project in south Texas. He said Major also will seek to become actively involved with advising and assisting golf courses interested in achieving certification from Audubon International.



Steve Elkington (right) and arborist Jack Swayze.

"Landscape architects design from their perspective," said Swayze, "but we're also looking at the management side, what's easiest for the superintendent to maintain."

No Wait. No Worry.

REWARD®. THE NO-WAIT, NO-WORRY HERBICIDE.

Stop waiting around for Roundup and Finale to go to work on weeds. With REWARD herbicide, you see results on broadleaf and grass weeds in as little as one day after application. Providing quick, effective control on golf courses, around residential and commercial turf, in greenhouses, nurseries and right-of-ways—even in aquatic situations. Without worry about the surrounding non-target vegetation, fish and wildlife. Put the no-wait, no-worry herbicide to work for you. REWARD.



For more information, contact your Zeneca representative, or call 1-800-759-2500.

REWARD®
Aquatic and Noncrop Herbicide



ZENECA Professional Products

Always read and follow label directions carefully. REWARD® is a trademark of a Zeneca Group Company. Finale is a trademark of AgrEvo. Roundup is a trademark of Monsanto Agricultural Company. ©1996, Zeneca Inc. A business unit of Zeneca Inc.

Q&A: Griffiths

Continued from page 37

have been there longer. It's quite a challenge to try to sort out the different ideas and philosophies of the society and where the business is going.

I personally have a major concern of where the golf industry is going. We have been very fortunate to have been in a golf boom since 1986. We had a lot of ups and downs through the 1970s and '80s. And I look with a bit of guarded optimism to where we're going.

If we can keep golf affordable and keep the market growing, then my concerns aren't as paramount. The more affordable golf is, the bigger our market is.

GCN: Much of it hinges on the green fee, then? Is that scary?

DG: If you look closely right now, to me it's a little scary. Our bread-and-butter is the more expensive golf courses.

GCN: Do you feel the cost of green fees is driving some people out of the game, and in the same way, a lower cost would draw those people into the game?

DG: I don't think it's driving them out of the game, but they're playing less than they would if it were more affordable.

The biggest challenge facing golf development is cost — no question. There are numerous things that are driving the costs up that aren't necessarily due to the architects' flair or flippancy. A lot of the increased costs relate to the difficulty of the sites we're working on. We're working on properties that deal with floodplain, environmentally sensitive areas, landfills, quarries, segmented parcels and other limitations that add to the time and permitting costs. If only every site were 200 acres of gentle, rolling meadow land that is partially open and partially cleared. It wasn't that many years ago that many of our courses were. But in the urban areas, where the majority of courses are being built, land is less and less available and you get technical difficulties as to how to design a golf course that's enjoyable, playable and maintainable.

GCN: Is it getting any easier to obtain

environmental approvals on the local level?

DG: I don't think so. If anything, it's probably getting more difficult — even though we are better prepared. We've been dealing with it longer and the majority of us are far better prepared than seven or eight years ago. We better understand how to work with the different individuals and integrate golf with environmentally sensitive areas. There is still a very strong green movement here in the U.S. I don't know how much they have accepted scientific findings showing the environmental friendliness of golf courses.

The USGA [U.S. Golf Association], GCSAA [Golf Course Superintendents Association of America], PGA [Professional Golfers' Association] and NGF [National Golf Foundation] have all really worked on promoting golf as a good partner with the environment. Laymen and the green movement don't necessarily agree with what we are advocating.

GCN: But shouldn't the agencies be better educated than the general public?

DG: For the most part, those individuals within the agencies are far better educated concerning environmental issues than the general public. But education is not necessarily the issue.

The society has pushed the last two years, and I will push subtly, that the golf industry has a tremendous challenge in promoting that golf is good, producing recreation and relaxation and preserving open spaces. Responsible golf maintenance certainly enhances the environment. It is not detrimental.

These are basic issues we can't back off. If you were to poll kids through junior high school, most people would be very surprised at the perception younger people have for development and golf development. You'd find many perceive that it is not positive. And you certainly do not change that perception with facts and figures.

It's very important that we do everything we can to promote that responsible golf development is good. This is not always done with facts, figures and tables.

To get across to the general public, we continually need to campaign for what we're doing. Golf development and parking lots are one in the same in many peoples' mind.

GCN: [Golf architect] Ed Seay said we will be seeing six-, eight- and 10-hole golf courses, depending on how much land is available. What do you think of that idea?

DG: I don't have a good answer. We looked at alternative facilities for varying acreage for years, those varying from par-3 to executive to nine-hole to a combination. We've done less than 18 [holes] or less than nine [holes]. But, still, you have to deal with the general public's perception and how they are accustomed to playing golf.

I would pose the question: "Are we allowed to have brown grass fairways and bump-and-run and all the nuances of Ireland and Scotland? Are they acceptable by the U.S. golfing market?" No. So, we as designers have some wonderful alternative solutions, but I doubt they will be accepted by the golfing public.

Two things here: I feel strongly that golf can be an excellent business venture. We work very diligently to make the facilities we design viable business ventures for our clients.

So when I talk about perception and will people use it, that's where I'm coming from. If I've got 30 acres and I want an 18-hole golf course and I'm able to support that out of my pocket book, that's a different issue.

We once did a course for a client who could afford it. He had 15 acres. We built five greens and 11 tees and have a wonderful 18 holes of golf.

Facilities like that are fun. They're built with small amounts of money, and they could be a great place to learn and to make golf available on properties that can't contain a regulation-sized course.

GCN: You may be best known for Bent Tree, Chateau Elan, Pole Creek and Fox Hollow. But what do you believe is your greatest accomplishment in design?

DG: Still being here. A peer said, "Our golf courses are like your children. Each one has its intricacies, something that's

special and it's unfair to pick a favorite."

GCN: What has been your toughest engineering challenge?

DG: The Legends at Chateau Elan [in Georgia] is one of my favorites because when we walked the property I said to [developer] Don Paintos: "It's a wonderful property and you've given us a relatively free hand in routing it to get the best golf course. We're getting ready to do a traditional golf course. We have these fantastic personalities who are going to work with us, and we are going to place restrictions on ourselves. Like the early 1900s, we will not use any scrapers to move dirt. So logistically we can't move dirt more than 150 feet." He said, "OK, and I'll do you one more. You won't knock down any trees. We'll move them all with a tree spade." We essentially did, and the process was great.

GCN: Working with Gene Sarazen, Sam Snead and Kathy Whitworth must have been fun.

DG: It was memorable, a wonderful opportunity. They were all great to work with. I couldn't learn enough from those three.

GCN: The course was to be a collection of their favorite holes. How did that work out?

DG: When we talked design and what they would like to see, in many cases they had very distinct, memorable images of golf holes — positive memories they wanted to pass on to the golfers.

GCN: More and more people are jumping into the field of course design — from Tour pros to former lead designers like Roger Rulewich and your own Tom Johnson. Is there enough work for everyone?

DG: No. It's very simple. In the 26 years I've been in business that's always been the case.

There is that individual who is going to do one golf course in his lifetime — whether he is a landscape architect, golf pro, or golf course owner. That segment has been there and will always be there. But to survive today just doing golf course design is going to be very difficult with all these people in the industry.



Nothing less than the very best.

Settling for anything less than the newest ideas, the latest styles, or some of the **best products** for the money doesn't make sense.

Southern is taking a new and better approach to the three flag system. Now you can combine patterns and colors to show the position of the flagstick on the green. The flag sections are sewn together for **extra strength**

and they will last longer than we want them to!! Add our Surveyor Stripe flagstick for the hottest flag and flagstick combo around!

Not only can the staff look their best but the course can **dress to impress** as well. Call 1-800-233-3853 or fax 1-800-277-7701 today for more details on all the available patterns. Don't be disappointed, when it comes to your golf course accessories or your staff's uniforms, call Southern.



SOUTHERN GOLF PRODUCTS

297 Dividend Drive • Peachtree City, GA 30269 • 1-800-233-3853 • Fax 1-800-277-7701



Front of green

Windsor Pattern

Middle of green

Custom Checker Pattern



Back of green

Windsor Pattern

The Ledges finally under construction

YORK, Maine — Construction could begin in April on The Ledges, an 18-hole, daily-fee course in this Southern Maine coastal community. Developer Pat Rocheleau hopes to complete a least nine holes this fall and open them late next spring or early summer. Bradley Booth is the course architect. No residential component is planned.

Booth is also beginning work this fall renovating two holes at Lincoln, (R.I.) Country Club.

Family builds public 9

HAMMOND, La. — Ponchatoula residents Art and Gus Zieske are building a small-scale, nine-hole public golf course in Hammond. The Zieskes planned to open Ironwood Golf Club for play in April.

The course has been carved out of a 35-acre tract of land about a mile east of the of the Zieskes' old Ironwood Driving Range. The new Ironwood course will include two par-4 holes and seven par-3 holes ranging in length from 100 to 230 yards.

BRIEFS



IRVINE, WESTERN GOLF TEAM UP

IRVINE, Calif. — The Irvine Co. has selected Western Golf Properties to manage Oak Creek Golf Club here. Oak Creek is scheduled to open for public play in September. Western Golf also manages The Irvine Co.'s Pelican Hill Golf Club, another Tom Fazio design in nearby Newport Beach.

CASPER TO OVERSEE MD LAYOUT

MIDDLETOWN, Del. — Back Creek Golf Club has selected Billy Casper Golf Management (BCGM) to provide complete turnkey management services. BCGM will oversee construction and later operate the course. Construction began recently with a summer 1997 opening anticipated. Steve Newgent JSN Golf Enterprises is the builder and David Horn of Archterra PC the designer.

MARTTY SIGNS ON AT LAKEWOOD

NEW ORLEANS — Lakewood Country Club has named Martty Golf Management (MGM) to manage the semiprivate golf facility. Lakewood has hosted the New Orleans Open for the past 16 years. MGM's mission is to create the club's philosophy, develop a business/marketing plan and reorganize the operations.



Thomas Martty

GREY TO HEAD KEMPER CHICAGO EFFORT

NORTHBROOK, Ill. — Kemper Sports Management has named Tom Grey director of marketing for Kemper Golf Management Chicago (KGMC), operator of Chicago's eight park district golf facilities. Grey will take over a schedule of events that reached 6,000 Chicago residents last year and be responsible for managing marketing activities at the eight facilities. Grey most recently served as assistant golf professional at Kemper-run Royal Melbourne.

FAHEY TABBED BY MATRIX

CRANBURY, N.J. — Matrix Hospitality has hired Richard Fahey as general manager of Ashbourne Country Club in Cheltenham, Pa. Fahey is a 25-year veteran of the hospitality industry with nine years of golf club experience. Ashbourne was built in 1922 on the Stetson hat family estate. Matrix took over the facility a year ago.



Richard Fahey

GOLF COURSE NEWS



Heron Point Golf Links in Ancaster, Ontario, Canada,

ClubLink offers upscale private courses, large public profits

By PETER BLAIS

TORONTO — Since becoming a publicly traded company a little over two years ago, ClubLink Corporation has evolved into one of the leading course owners/managers in Canada.

ClubLink operates five, high-end private golf facilities in southern Ontario. In June it will open a sixth, The Lake Joseph Club located two hours north of the city. "And we'll continue to look at new opportunities as they arise," promised Marketing Services Director Richelle Arnott Nemeth.

To date, ClubLink has concentrated on quality private courses catering to Toronto-area residents. In addition to Lake Joseph, ClubLink's facilities include:

- 27-hole Cherry Downs Golf & Country Club (G&CC) in Pickering acquired in 1993;

- 18-hole Emerald Hills G&CC in Stouffville acquired in 1993;
- 18-hole Heron Point Golf Club in Ancaster acquired in 1993;
- 18-hole Greystone Golf Club in Milton acquired in 1994;
- 18-hole King Valley Golf Club in King City acquired in 1994.

King Valley and Greystone rank among the top 20 courses in Ontario with flagship King Valley rated the fourth-best course in Canada by SCORE magazine. But Lake Joseph may pass them all.

The 18-hole golf course and nine-hole golf academy designed by Canadian architect Thomas McBroom is the centerpiece of The Lake Joseph Club. The property totals 420 acres with 3,000 feet of lakefront. ClubLink acquired the property in October 1994 for \$2 million from a Canadian insurance company

Continued on page 50

MARKETING IDEA OF THE MONTH

Taking to the air waves enhanced PGA club's reception

By PETER BLAIS

Officials at The PGA Golf Club at The Reserve say the 500 seeds they sowed during the last weekend of December are already yielding a bumper crop of additional rounds.

The PGA Golf Club held a pre-opening "Public Plays Free" preview weekend Dec. 30-31, giving away almost 500 rounds to Southeast Florida golfers.

"We've seen a lot of those people come back already," said head pro Bill Ciofoletti. "Many of them have brought friends and relatives. I think we'll eventually capture thousands of additional rounds because of that one free weekend."

The PGA Golf Club is the first public golf facility owned and operated by the PGA of America. But developers knew it would take more than the PGA name to draw golfers to another daily-fee facility in an area already well stocked with public courses. In fact, the PGA feared many golfers would simply assume that a PGA-owned course was private.

So last fall the PGA hired marketing specialist Elaine Fitzgerald of Fitzgerald Productions Inc. to devise a way to attract



The PGA Golf Club at The Reserve

public golfers to its two new Tom Fazio-designed layouts and spread the word that the PGA was in the daily-fee business.

The first 18 holes were scheduled to open Jan. 1, although the staff was in

LEGAL CORNER

Beware the insurer seeking reimbursement

By NANCY SMITH

When sports facilities are sued, one of the biggest expenses can be paying for the defense. Even if the case has no merit, a defense attorney can run up a big bill proving just that. Whether it is a country club or sports arena, a successful sports operation can be seen as a deep pocket to recovery.

When the rainy day of litigation arrives, the silver lining in the storm clouds may be an insurance company willing to pay the defense attorney — regardless of whether any judgment on liability is ultimately paid by the insurer. But as sports tycoon Jerry Buss recently learned, the insurance company may come asking for reimbursement for all attorneys' fees.

Buss owns the Los Angeles Lakers and Los Angeles Kings. He and his teams are the primary tenants at the Forum sports arena. When Buss had a falling out with his advertising agency, the dispute ended up in Los Angeles County court. Buss was surprised when his insurance company came back to him at the end of the suit and asked for reimbursement of more than \$1 million it paid Buss' lawyers.

It all started with the ad agency's suit for breach of contract and other claims stemming from Buss' termination of the agency's exclusive rights to handle advertising for the teams and arena. Attor-

Continued on page 52

place and the first course ready to go by late December. The PGA had toyed with the idea of giving away some rounds to the public prior to Jan. 1 to thank the local populace for its support. The question

Continued on page 51

New Dallas management firm formed

DALLAS — A Dallas company co-founded by a former Fort Worth golf pro has linked up with Lincoln Property Co. in a partnership specializing in management, development and design of golf course properties.

Called Lincoln/Brooks-Baine, the venture offers a full range of professional property management and consulting services to the golf industry. The chief executive officer of

the partnership is Burt Baine, a member of the PGA of America and a former golf pro at Mira Vista and Ridglea country clubs in Fort Worth.

Baine is also a partner in Brooks-Baine, a consulting and management firm he co-founded in 1992. His partner in that company is Mark Brooks, a five-time winner on the PGA Tour. Brooks-Baine Golf and Lincoln are co-partners in the new venture.

ClubLink

Continued from page 49

that had foreclosed on the former Elgin House resort. Located in the heart of the Muskota cottage area, an upscale summer resort community, Lake Joseph will include a clubhouse, executive inn and conference facility, waterfront bar/restaurant, docking facilities and 100 residential units.

President and Chief Executive Officer Bruce Simmonds is the driving force behind ClubLink. Prior to founding

the company, Simmonds was involved with fast-growth companies in other fields.

Through his family's company, A.C. Simmonds and Sons Ltd., he acquired Glenayre Electronics in 1987. Glenayre's sales grew from \$23 million per year to \$200 million annually when it was sold in 1990.

The Simmonds family also purchased Dynacharge out of bankruptcy in 1982 for \$125,000. Simmonds built it into a major supplier of rechargeable batteries in Canada with annual sales of

\$12 million by the time he sold the firm for \$10.5 million in 1985.

Simmonds participated in the acquisition of Cherry Downs in 1989. In 1993, he assembled a management team and took ClubLink (LNK) public with a listing on the Toronto Stock Exchange. The firm has gone from 27 holes just prior to going public to 126 with the opening of Lake Joseph in June.

ClubLink markets itself as a network of high-quality clubs for the Toronto marketplace. Members at one club have playing privileges at the others as well. Entrance fees range from \$12,500 for the principal member at Cherry Downs to \$30,000 at King Valley. Annual dues for principal members start at \$2,500 at Lake Joseph and climb to \$3,650 at King Valley. These are attractive prices in the Toronto marketplace where entrance fees at Class A private clubs in 1994 averaged from \$20,000 to \$100,000, averaging \$30,000 to \$35,000, according to ClubLink figures.

ClubLink generates significant revenues from non-member events and programs. It is one of Toronto's largest organizers of tournament events, holding 15 percent of the area's corporate events and roughly a third of the high-end ones by its own estimates.

The company also owns real estate around several of its courses that it plans to develop into residential areas over the next few years.

ClubLink is bullish on the golf market. It estimates the return on cost at a typical ClubLink, 18-hole private club will reach 17 to 35 percent as the course reaches capacity over a three- to five-year period. Those figures are based on 550 principal members, 120 spousal members and 28,000 annual rounds.

The company plans expansions and improvements to its existing facilities. At Cherry Downs, the ClubLink plans to redesign the existing course and has an additional 336 acres where it hopes to construct another 18-hole course and 200 to 250 residential units. Additional residential development is likely at King Valley and Heron Point, where the company owns extra acreage.

ClubLink is on the lookout for additional properties in the Toronto area, Western Canada and the U.S. Sunbelt, Nemeth said. A potential deal to buy Alaqua Country Club in Orlando, Fla., fell through recently when the members exercised their right to buy the club, she said. ClubLink does have reciprocal playing arrangements with Alaqua, however, as well as the Heritage Club in Ocala, Fla., and Starr Pass in Tucson, Ariz.

IF YOU CAN'T SEE THE BENEFITS IN A CLEAR FUNGICIDE, THEN YOU'RE NOT LOOKING HARD ENOUGH.

We'd like to make one thing perfectly clear: next to new Banner® MAXX®, no other broad-spectrum fungicide even compares. It's the world's first transparent fungicide.

Simply put, Banner MAXX is the best tank-mix partner. It has the same properties as water. It won't clog filters and has no odor. And unlike



This should shed some light on the subject. Our active ingredient is less than 0.1 micron in size while other sterol inhibitors are about 25 microns in size.

wettable powders, it will never settle out.



Other sterol inhibitors have something our fungicide doesn't. That's because Banner MAXX is not a powder or granule. It's water-based.

Even more impressive is the fact that Banner MAXX controls 18 turf diseases, including dollar spot and summer patch.

It contains no petro-

leum solvents, so there's no potential for phytotoxicity. And it's available in closed system containers.

For more details, call 1-800-395-TURE.

Because no matter how you look at it, Banner MAXX isn't like any fungicide on earth. But you can see that for yourself.

MAXimum Value



Sponsor Environmental Steward Award. ©1996 Ciba-Geigy Corporation, Turf and Ornamental Products, Box 18300, Greensboro, NC 27419. Banner® MAXX® is a registered trademark of Ciba-Geigy Corporation. Always read and follow label directions.

Radio spots

Continued from page 49

was how to distribute those rounds. Enter Fitzgerald.

Fitzgerald hit on the idea of providing those rounds to a dozen local radio stations. Each station received 10 letters with PGA Golf Club letterhead. The letter entitled the bearer to bring a foursome, free of charge, to The PGA Golf Club the week-end of Dec. 30-31.

The stations, which covered Florida's east coast from Miami to Vero Beach, hyped the opening and distributed the free rounds through a variety of radio contests. While competing stations rarely promote the same event through give-aways, they agreed to do so in this case because the PGA allowed them the freedom to devise their own contests for distributing the rounds, Fitzgerald said.

Some used simple formats such as "Be the fifth caller and win." Others provided some fact about the course (such as its location) prior to the give-away and required winning callers to know that information before receiving the free rounds.

"Most of the stations gave away one foursome every morning," Fitzgerald recalled. "They would hype it during morning drive time right up until the contest. Then they would hype the next day's contest periodically throughout the day. What we ended up with was basically two weeks of free ads on 12 different stations. We could never have afforded that much advertising time."

Course costs were minor. Since the club wasn't planning to open until Jan. 1 for tax reasons, the Dec. 30-31 promotion didn't require it to give away rounds that it would normally have charged for. Each golfer also received a free hat and PGA logo golf ball with the words "First Ball" on the cover.

Staffing was the only major expense, Ciofoletti said.

"It gave us the opportunity to go live with our new staff in a non-paying situation," Ciofoletti said. "It was sort of a dress rehearsal for the real thing. Seeing how well the staff did that weekend gave us a more comfortable feeling when we officially opened for business."

But most importantly, according to PGA of America Senior Director of Operations Marty Kavanaugh, the promotion let people in Southeast Florida know that the PGA of America was in the affordable (\$49 including cart) public golf business.

"We wanted to send a message that the PGA had opened an affordable, championship golf course," Kavanaugh said. "There was a perception that the PGA wasn't interested in public golf. But our mission is to make golf affordable to everyone. This promotion helped deliver that message."

National Golf Foundation offers customized research service

JUPITER, Fla. — The National Golf Foundation (NGF) has introduced a new customized research service that allows members to get information faxed or mailed to them by the end of the next business day.

Called "NGF InfoSearch," the new electronic service offers access to hundreds of trade magazine articles and news items each month. National Golf Foundation library staffers prepare abstracts of these articles and items on an ongoing basis and they are stored under one of more

than 1,000 topical headings.

According to the NGF, its library houses the largest single collection of information on the United States Golf Industry and the business of golf in the world today. It contains more than 18,000 trade magazine and journal articles, research studies, market reports and other pieces of related printed material which the National Golf Foundation has been accumulating over the past three years.

"It's like having your own personal library of golf industry literature ... com-

plete with a professional staff, but without the hassle or expense of maintaining it yourself," said Charles Mayberry, the National Golf Foundation's Director of Library Services, who's been responsible for developing the service.

The NGF's InfoSearch service is a forerunner of bigger developments expected later this year, including an on-line electronic network for the golf industry.

For more information about InfoSearch, National Golf Foundation members can call 1-800-773-6006.

You bought the
right mower.

Why buy
the wrong parts?

TORO®

You gave it plenty of thought. Then chose Toro, because you know the difference between spending and investing.

You want to protect your investment with another sound investment. Genuine Toro parts. Each is a precise match of the original in fit and quality. To retain

that new Toro feel, performance and durability.

And we're greater than the sum of our parts. With genuine extras like our worldwide network of Toro distributors. And available 24 Hour Fast Track Delivery.*

All yours because you made the right investments.

Services far beyond the sale.

For genuine Toro parts, call your local Toro distributor.

1-800-803-8676, ext. 154.

*See your Toro distributor for details.

©1996 The Toro Company, 8111 Lyndale Avenue South, Bloomington, MN 55420. All rights reserved. "Toro" is a registered trademark of The Toro Company.

American Golf adds two new courses to growing portfolio

SANTA MONICA, Calif. — American Golf Corporation has added a pair of new golf course facilities to its growing management portfolio.

The California company signed a long-term operating lease with owner O-Sports Development Co. for the SilverHorn Golf Club in San Antonio, Texas. Randy Heckenkemper designed the 18-hole layout in co-operation with widely known PGA Tour professionals Scott Verplank and Willie Wood.

The same team designed SilverHorn Golf Club in Oklahoma City, which is also owned by O-Sports and managed by American Golf Corp.

The Dayton, Ohio, suburb of Springboro recently awarded AGC a management contract for municipal Heatherwoode Golf Club. Denis Griffiths designed the 18-hole layout, which has hosted the Nike Tour's Miami Valley Open the past four years.



Beware insurers

Continued from page 49

neys for the agency came up with 27 different claims against Buss. Most involved contract breaches. One, however, asserted that by firing the agency, Buss had defamed the agency and damaged its reputation. Since defamation was covered insurance, this gave Buss' attorneys the idea their fees might be paid by Buss' insurance company. When they asked Transamerica Insurance to pay the attorneys' fees, the insurance company agreed.

However, the insurer looked at the ad agency's complaint and concluded that only the defamation claim had any potential for coverage under its policy. The company agreed to pay the attorneys' fees, but reserved its rights to come back later and ask Buss for reimbursement, if it turned out the money was spent to defend claims entirely unrelated to the actions covered by the policy. Buss eventually settled with the ad agency, paying the company \$8.5 million. Although Buss asked Transamerica to pay some of the settlement, the company refused, stating this was really a breach of contract lawsuit not covered by the policy. Buss then sued Transamerica, claiming it should have at least contributed something to the settlement to cover the defamation claim.

But Transamerica fought back, countering Buss. The company contended the single defamation was really baseless. In essence, Transamerica said, the defamation claim was like one ball in the bottom of a water trap. The insurance company

said it had spent more than \$1 million defending the case, but only as much as \$55,000 of those funds related to the defamation claim. Transamerica wanted its money back.

Earlier this year, more than seven years after Buss had fired the ad agency, the California Court of Appeal ruled Transamerica could seek reimbursement. The two will now return to a trial to determine exactly how much Buss will have to pay the insurance company.

The case turned on somewhat technical but significant practices involving insurance companies. These principals apply to all insurance companies, whether they cover a slip and fall in the clubhouse dining room or cart accident on the course. Generally, when there is any reasonable possibility an insurance policy will cover any claim made in a lawsuit, the policy provides payment for an attorney to defend the insured.

The duty to defend an insured is separate from the duty to pay any ultimate judgment or settlement. As the California Court of Appeal pointed out in the Buss case, "The insurer's desire to secure the right to call on the insurer's superior resources for the defense of third-party claims is, in all likelihood, typically as significant a motive for the purchase of insurance as is the wish to obtain indemnity for possible liability."

As a consequence, California courts have been consistently solicitous of insurers' expectations on this score. "However, it is common for lawsuits to have a mixture of claims, some of which may be covered by insurance and others which

are not. Plaintiffs' attorneys often try to come up with ideas for allegations that will trigger insurance coverage as a way to facilitate settlement. When some claims are covered and some are not, insurance companies typically will pay the defense costs, but reserve the right to later ask for reimbursement.

In the Buss case, the stakes were so high, Transamerica felt it was entitled to more than \$1 million back. In a detailed legal opinion, the Court of Appeal ruled Transamerica was entitled to the right to seek the money and prove these funds were spent defending the contract claims and not the defamation allegation.

Generally, insurance is available for unintentional mishaps which injure others, such as negligent maintenance of a cart road. Insurance is not generally available for intentional conduct, such as assault and battery.

The breach of a business contract is not covered by standard insurance. When both covered and uncovered allegations are alleged in the same suit, however, insurance companies have a duty to defend their insureds.

As long as a potential for coverage exists, the court ruled, the insurer has no right to come back later and ask for reimbursement for attorneys' fees. However, if there is no potential for coverage, payback time is at hand.

The court's message is clear: Just because the insurance company is paying defense costs, when there is a reservation of rights, don't be lulled into thinking the insurance company might just forget to ask for some of its money back.

NATIONS CREDIT

A NationsBank Company

Golf and Recreational Finance

is proud to announce it has closed on the following transactions since its inception in late 1994.

\$7,000,000 - NORTHGATE COUNTRY CLUB, Houston, TX
Refinance of an 18-hole private course.

\$3,400,000 - THE LINKS GROUP, Myrtle Beach, SC
Refinance of leases on 144 holes of golf plus a credit line for future acquisitions.

\$11,500,000 - THE LODGE OF FOUR SEASONS, Lake of the Ozarks, MO
Refinance of a 311-room lodge, 211-slip marina and 45 holes of golf.

\$5,000,000 - KEMPER SPORTS MANAGEMENT, Chicago, IL

\$2,250,000 - OLDE POINT GOLF & COUNTRY CLUB, Wilmington, NC
Refinance of 18-hole course plus construction funding for clubhouse expansion.

\$2,500,000 - GEORGETOWN COUNTRY CLUB, Georgetown, MA
Refinance of a 9-hole public course plus construction funds for additional 9 holes.

\$3,500,000 - THE SEA RANCH GOLF LINKS, Sea Ranch, CA
Refinance of a 9-hole public course plus construction for a second nine holes.

\$2,400,000 - WHITTIER GC & VICTORIA GC, Los Angeles, CA
Refinance of two 18-hole public courses.

\$5,000,000 - THE BEACH CLUB GOLF LINKS, Ocean City, MD
Refinance of an 18-hole course and construction financing of new 18-hole course.

\$3,600,000 - THE HERITAGE GOLF CLUB, Atlanta, GA
Construction of an 18-hole course and a line of credit for new acquisitions.

\$5,200,000 - AVILA BEACH RESORT, San Luis Obispo, CA
Refinance of an 18-hole resort golf course.

\$4,750,000 - CRYSTAL SPRINGS GC, Sussex Co., NJ
Refinance of an existing course to draw out equity to construct a new course.

\$3,250,000 - BLACK BEAR GC, Sussex Co., NJ
Construction of a new 18-hole course, cross-collateralized with Crystal Springs.

\$3,800,000 - CHESTNUT HILL & DEERFIELD GC, Buffalo/Rochester, NY
Refinance of 18-hole course and acquisition of 27-hole course.

\$8,500,000 - ANGEL FIRE RESORT, near Taos, NM
Acquisition of a ski mountain, golf course, hotel, RV park & other amenities.

\$9,500,000 - GOLF CLUB of ILLINOIS & BURR HILL GC, Chicago, IL
Refinance GCI, acquire Burr Hill and provide a line for future acquisitions.

\$7,000,000 - ELY BOWLING, Northern NJ
Refinance of 4 bowling centers in northern NJ and southwestern NY.

\$6,700,000 - BADLANDS GC, Las Vegas, NV
Take-out of course construction loan, plus provide for clubhouse construction.

\$2,600,000 - CASSELBERRY GC, Orlando, FL
Acquisition of an 18-hole daily fee course.

\$3,600,000 - SOUTH RIDING GC, Washington, DC
Construction Loan for new daily fee course.

Don Rhodes Jerry Hinckley Barbara Welty Debbie Suppa
Vice President Bobby Fitzpatrick Rick Nekoroski Nancy Loucks

400 Northridge Road, Suite 520
Atlanta, Georgia 30350
(770) 993-1202 fax (770) 643-0344

BRIEFS



LEWIS TO LEAD VERMEER MARKETING

PELLA, Iowa — Jeffrey Lewis has been hired as managing director of international marketing for Vermeer Manufacturing Co. Lewis' primary responsibility for Vermeer will be directing the company's long-term global strategic plans to gain market export leadership and competitive advantages worldwide. He will head Vermeer's International Department that coordinates sales through 66 locally operated sales and service dealerships located on every continent except Antarctica.



Jeffrey Lewis

E-Z-GO TAPS SUNDBERG

AUGUSTA, Ga. — Larry H. Sundberg has been named director of specialty vehicles at E-Z-GO Textron. Sundberg will oversee E-Z-GO's specialty vehicle sales, new product development and distributor/dealer management. Sundberg was previously with Club Car for eight years, where he was national sales manager for distributor sales and, most recently, director of western zone sales.

GASPERINI TO MANAGE GOWAN SALES

YUMA, Ariz. — Gowan Co. has announced the appointment of Frank Gasperini as turf and ornamental manager for the United States and Canada. Gasperini will manage the sales and marketing effort for Gowan's Turf and Ornamental product line including Tupersan, Betasan herbicides, Hexagon miticide and Metasystox R-2 insecticide. Gasperini comes to Gowan with more than 15 years in sales.

BROUILLETTE JOINS SEI

MONTPELIER, Vt. — Michael C. Brouillette has joined Stone Environmental, Inc. (SEI) as staff scientist/GIS specialist. With expertise in Geographic Information Systems (GIS), he will assist senior scientists and project managers in water-quality and land-use modeling investigations and data-management issues related to GIS. Prior to joining SEI, Brouillette worked as GIS database manager in the Research Division of the U.S. Army Corps of Engineers Cold Regions Research and Engineering Laboratory in Hanover, N.H.



Michael Brouillette

Sod industry booms; inventory levels fall

By HAL PHILLIPS

Need Bermudagrass sod this spring? Take a number.

Southeastern sod producers are reporting their lowest inventories in some time, as a combination of strong residential sales, the Atlanta Olympic Games, winter kill and booming new course construction have resulted in shortages of Bermuda and zoysiagrass stocks.

Golf accounts for approximately one-tenth of the nation's sod purchases, according to Doug Fender, executive director of Turf Producers International. However, the growing popularity of sodding new courses, in addition to the harsh winter, has contributed to an upward swing in golf's use of sod.

"Only eight to 10 percent of sod use goes to golf, but that figure has doubled in the last three to four years," Fender explained. "It's a remarkable phenomenon but we have to keep it in perspective. If we doubled our residential business, we couldn't meet demand. Golf is a smaller scale but there's no denying golf is on a stronger use path."

Added Aaron McWhorter of North Georgia Turf: "The sod industry is at its peak. We may never see the demand for our product at these levels again for a long time."

Of the 21 sod producers polled by the Georgia Sod Producers Association, 70 percent described their inventory levels



of Bermudagrass at fair to poor. Zoysia levels are no better. Of the eight farms in Georgia growing zoysia, only two reported adequate levels.

Despite the shortage, only 35 percent of the sod producers anticipated a price increase, while 65 percent expressed hope that prices will remain steady.

"New golf courses have really increased their purchase of sod," said Don Moore, vice president of Tifton Turf Farms. "In the past, only 50,000

square feet of sod or less was used at a new course, around ditches and swales. Now, many new courses purchase 1 million to 1.5 million square feet for an 18-hole course. Developers want to protect themselves from erosion losses during gully-washers and the sod is the fastest method to cover the exposed soil."

The general rule of thumb: Architects factor in 10 acres of sod for bunker

Continued on page 56



NEW PRODUCT OF THE MONTH

Providing crew members with adequate protection on the course is a chief concern to golf course superintendents and crew members alike. Par Aide's new Safety Net offers protection from the hazards of working in the line of play. Finished with a universal "Safety Yellow" border, the 6-foot-by-6-foot net folds for easy transport. Sturdy, finished steel "step-in" stakes grip a full 12 inches into turf. Aluminum uprights hold net in place for dependable, wind-resistant stability. While the new portable safety net provides reliable protection, Par Aide recommends crew members abide by safety standards and wear protective helmets at all times. For further information about this product, contact Par Aide Products Co. at 612-779-9851. For more accessory coverage, see pages 32-35. For more new products, see page 58.

Host resigns Scotts presidency; Seitz assumes former post

MARYSVILLE, Ohio — The board of directors at The Scotts Co. has announced the resignation of its president and chief executive officer, Theodore J. Host, who also resigned his seat on the board of directors. Tadd C. Seitz, the current chairman of the board and the company's chief executive officer from 1983 until April 1995, has agreed to resume his former posts as CEO and president on an interim basis while the board conducts a search for a new CEO.

Seitz first became CEO of The Scotts Co. in 1983 and guided it through a management buyout from ITT Corp. in 1986. He also led the firm through its initial public offering in 1992 and through acquisitions in 1989, 1993, and 1994 of Hyponex, Republic, and Grace-Sierra, respectively, and the 1995 merger with Miracle-Gro.

"Tadd Seitz has been a stabilizing force for the company since 1983," said Horace Hagedorn, vice chairman of the Scotts board and chairman of Miracle-Gro prior to the merger, speaking on behalf of the board. "We are truly looking forward to having him back at the helm and toward refocusing the company's efforts in the 1996 fiscal year."

...

The Scotts Co. also recently announced the appointment of Robert Stohler as vice president, international. Stohler joins Scotts following an executive career in the global market. Most recently, he was president, Rubbermaid Europe in Luxembourg. In this new position, Stohler is responsible for international operations for both the consumer and professional business.

Kirtland Capital acquires Best Sand parent firm

CHARDON, Ohio — Kirtland Capital Partners has acquired a majority interest in Fairmount Minerals, Ltd., the parent company of Best Sand Corp., according to the terms of a merger agreement announced Feb. 29.

Best Sand — with locations here in Chardon and Richmond Dale, Ohio — is a major supplier to golf courses throughout the United States and Canada. Shipping from a network of regional terminals, the company markets sand for bunkers, greens construction and topdressing through distributors and by direct sale.

Terms of the agreement give Fairmount Minerals and its subsidiaries the liberty to con-

tinue as independent and private companies with the latitude to pursue additional growth opportunities. Company managers will continue to operate the business, but will work closely with Kirtland on strategic planning.

Fairmount is the third-largest producer of industrial silica sand in the U.S. and the largest U.S.-owned producer. Through both acquisition and internal growth, sales have continually increased. Revenues for 1995 reached more than \$91 million. In addition to the golf market, the company is a major supplier to metal casters, glass manufacturers, the oil and gas well stimulation industry and water filtration facilities.

FMC, Cactus merge, form Seeds West

PHOENIX, Ariz. — Farmers Marketing Corp. and Cactus Seed Co. have joined forces, forming a new entity known as Seeds West, Inc.

"Seeds West will be the largest bermudagrass seed company in the world," said Sheldon Richardson, president and chief executive officer (CEO) of Farmers Marketing Corp. "The merger allows us to provide our combined networks of international distribution with common bermudagrass seed from the best growers in the production

area, and the newest improved varieties from our warm-season turfgrass research program with state-of-the-art seed conditioning, coating and packaging facilities."

New Seeds West officers include Richardson as president and CEO; Jim Edwards, vice president, chief financial officer; Ernie Millner — the former vice president and general manager of Cactus Seed Co. — will serve as vice president and chief operating officer; and Helen Lucas as vice president, sales and general manager.

Seeds West corporate headquarters are now located at 4445 North 24th Street, Phoenix, Ariz., USA 85016. The firm can be reached by phone at 602-437-4058, or fax at 602-437-0245.

NATURE SAFE®

THE NATURAL CHOICE FOR TURF MANAGEMENT

- An excellent stress guard product for use on a wide range of soil types, pH and weather conditions
- Beneficial in applications after aerification or prior to seeding and sodding to promote turf growth and recovery
- A microorganism enhanced organic fertilizer with 85% Water Insoluble Nitrogen (WIN)
- Ideal for sand based greens or where color and density have been a problem
- Non-burning fertilizer for year-round use
- Low salt index
- Excellent energy source to promote microbial growth



Also available in 10-2-8, 10-3-3, and 7-1-14



Nature Safe®

Natural & Organic Fertilizers

A DIVISION OF
GRIFFIN INDUSTRIES, INC.
COLD SPRING, KY 41076

FOR A DISTRIBUTOR NEAR YOU
CALL (800)252-4727

CIRCLE #147

Century Rain Aid acquires Aqua-Flo

DETROIT — Century Rain Aid has acquired Aqua-Flo, Inc. and the major turf branch of Trickle-eez Co., doubling Century's branches in the Washington, D.C., area and opening the southern New Jersey/Philadelphia market to them.

Aqua-Flo has been a leading distributor for Legacy Golf irrigation systems for many years in Maryland, Virginia, eastern Pennsylvania and New Jersey. Adding Aqua-Flo's territory will extend Century Rain Aid's Legacy Golf distribution area to cover most or all of 11 states and the Province of Ontario.

Aqua-Flo, Inc. has two branches, the headquarters in Hammonton, N.J., and a branch in Chantilly, Va.

The Chantilly branch is near Dulles International Airport at I-50, reachable at 703-968-7081.

The Trickle-eez branch is located in Savage, Md., reachable at 301-498-3894. Trickle-eez retains its other two branches, which specialize in agricultural irrigation.

These acquisitions increase the number of Century branches to 42, with four now in the D.C. area, where Century already has branches at Sterling, Va., and Crofton, Md.

"We consider the metro D.C. market to be of prime importance and one in which we plan continued growth," said Century's president, Wayne Miller.

Century will retain most of the employees of the newly-acquired branches, including key people like Rod Pinion and Gene Ostrander at Savage, Maryland, and Aqua-Flo's golf team, including Phil DeMarco, who will continue to head the successful Legacy Golf program.

"Having the Aqua-Flo team aboard will strengthen our ability and reinforce our commitment for continued growth in our golf irrigation sales," said Miller.

GOLF COURSE NEWS

Homestead Corp. to drop AgrEvo; picks up Lebanon

SLATERSVILLE, R.I. — The Homestead Co. headquartered here has announced its corporate name change to The Homestead Corporation.

Founded in 1951, Homestead is one of the world's largest manufacturers of controlled-release nitrogen. The company's methylene urea product, currently sold under the trade name of Nutralene, is one of the most widely used nitrogen products on the market.

Although its marketing partnership with AgrEvo USA will end May 1, the company will sell its products directly to the industry. The company stressed there will be no interruption in the availability of its products or services.

Homestead announced that Lebanon Seaboard Corp. will be the distributor of its bagged products. The agent for its bulk product has been designated and will be announced shortly.

IMC names new board members

NORTHBROOK, ILL. — IMC Global Inc. — which recently merged with fertilizer manufacturer, Vigoro Corp. — has announced the election of new members to its board of directors and the extension of Wendell F. Bueche's contract as chairman and chief executive officer (CEO).

The following individuals have joined the IMC Global board:

Joseph P. Sullivan, former chairman of The Vigoro Corp., becomes a director and chairman of the executive committee of the board; Harold H. MacKay, Q.C., formerly an outside director of Vigoro, becomes a director and a member of the audit committee of the board; Rod F. Dammeyer, formerly an outside director of Vigoro, becomes a director and a member of the Compensation Committee of the Board; and Robert E. Fowler Jr., formerly Vigoro's president and CEO and recently announced as president and chief operating officer of IMC Global's Potash, Farmmarket/Nitrogen, and Consumer and Professional Products Group, was elected a director, officer and a member of the executive committee of the board.

James D. Speir, president and CEO with responsibility for IMC-Agrico Co., the Rainbow Division and the Food Ingredient Division continues as a director, officer and a member of the executive committee of the board.

The company also announced that its contract with Wendell F. Bueche to serve as chief executive officer and chairman has been extended by one year.

GOLF COURSE NEWS



Gayle Jacklin



Rick Dunham



Hiromi Yanagisawa

Jacklin Seed Co. promotes three from within

POST FALLS, Idaho — Gayle Jacklin, assistant vice president of marketing at Jacklin Seed Co., has been named project leader for the firm's new investigative action, NewMarket Development, whereby Jacklin will conduct an in-depth analysis of the company's market coverage and distributors, then make recommendations to develop and fill those areas of weakness for further expansion of Jacklin's marketing.

In other Jacklin news, the firm announced the promotion of Rick Dunham to the title of vice president,

marketing. Dunham — moves up from assistant vice president, marketing — is responsible for day-to-day operations for both domestic and certain areas of international marketing activities. Dunham will establish with the vice president, managing director of marketing, Hiromi Yanagisawa, an overall management direction for both domestic and international marketing staff, specifically personnel administration.

Jacklin also announced the promotion of Yanagisawa. For-

merly vice president of international marketing, Hiromi is now the vice president, managing director of marketing.

Yanagisawa will assume overall responsibilities for domestic and international marketing day-to-day operations. Doyle Jacklin will continue to serve as Jacklin's vice president and senior director of marketing. Yanagisawa has played a major role in increasing Jacklin Seed's exports from 8 percent in 1983 to over 35 percent of its total sales in 1996 with exports to more than 50 international countries.

Brown Patch And Dollar Spot Give You Two Choices.

Do a lot of explaining.

Prevent them with ProStar® and ProStar Plus®.

TWO excellent preventative/curative fungicides with different control spectrums.

PROSTAR® Fungicide controls brown patch, plus 7 other common turf diseases including fairy ring. With 2 to 3 weeks residual (versus 1 week), its unique class of chemistry is ideal for resistance management rotated with other fungicides. It also tank mixes with many other turf products.

PROSTAR® PLUS™ Fungicide controls both brown patch and dollarspot. A premix that utilizes the lowest labeled rates of PROSTAR® and Bayleton®, the combined "synergistic" action is more effective than either agent alone. And it provides up to 30 days protection, even at these lowest labeled component rates.

PROSTAR and **PROSTAR PLUS** both have premeasured water-soluble packaging. Both are non-phytotoxic to all fine turfgrasses, and neither will interfere with growth regulator programs.

Go with the obvious choice for best results.

ProStar® and ProStar® Plus™
FUNGICIDE

AgrEvo®
A company of Hoechst and NOR-AM

Bayleton® is a registered trademark of Bayer, Inc. Read and follow label directions carefully. AgrEvo USA Company, Wilmington, DE 19808 ©1996

CIRCLE #148

GOODSHALL JOINS PINMARK

DALLAS—Scott Myers, vice president of PinMark Corp., has selected John Godshall as director of software product development. PinMark has developed a satellite-based, cart-mounted electronic yardage and golf information system. Features include graphics of each hole, two-way communication and course monitoring.

Vermeer founder named to Construction Equipment Hall of Fame

PELLA, Iowa — Vermeer Manufacturing founder Gary Vermeer, whose inventions have helped shape the construction equipment industry since 1948, was inducted into the Construction Equipment Industry Hall of Fame March 19, during the ConExpo/ConAgg equipment convention in Las Vegas.

Now the chairman emeritus of Vermeer Manufacturing, Vermeer's first invention was a mechanical wagon hoist designed

to speed up the task of unloading grain. To keep up with the demand, he built a 2,400-square-foot factory to start what is now one of the most successful family-owned equipment companies in the world. Through the years, Vermeer manufactured several more industry firsts, including a PTO-driven hammer mill and the PTO-driven tilling machine that grew into today's line of hydrostatic utility trenchers.



Gary Vermeer

In the 1950s, Vermeer helped build the tree-care market with the invention of the stump cutter which allowed one person to remove a stump in minutes. The innovation of the first mechanical tree spade gave the industry a machine that could dig, transport, and transplant trees providing

homeowners instant shade. Vermeer's most well-known invention was the large round baler in 1971. After learning that a friend was getting out of the cow-calf business due to the labor-intensive task of putting up hay to feed cattle, Vermeer designed a hay baler that would roll a bale of hay up to 2,000 pounds. Vermeer's large round baler is still considered one of the most revolutionary inventions in modern farming.



Sod industry

Continued from page 53

faces and erodable areas, then it's up to the owner to decide what else is sodded, according to Don Roberts, general manager of Southern Turf Nurseries/Warren's Group.

"Seeding is probably a lesser cost, if you hit it right and it germinates," Roberts said. "But we've found that, with the rains we're apt to have here in the Southeast, you can have an entire seed bed washed away."

"Sodding really decreases the risk element involved out there," agreed Jeff Hartstine, president of Central Florida Turf, a course construction firm active in the Southeast. "It costs more, but you offset that because you can open sooner. They do the math."

"New courses are definitely sodding more, and you have to consider renovations. There have been many more remodeling jobs of late. They sod a lot."

Unfortunately for golf courses in the Southeast, this winter's severe weather will likely result in some involuntary replacement sodding. Superintendents are expecting a great deal of winter kill — another factor in sod farmers anticipating low inventories this spring.

"I think you can check the records, and this is the worst winter we've had in 12 years, to my knowledge," said Butch Gill of Turf Merchants, Inc. "Severe winter kill is definitely contributing to the replacement sod market. Jacksonville usually has about 500 chill hours per year. This year, we're already at 900 chill hours."

According to Dr. Joe DiPaola of Novartis (formerly Ciba and Sandoz), Bermudagrass testing has shown the turf to be susceptible to injury at temperatures of only 23 to 18 F.

"Superintendents need to check their soil- and air-temperature records and see if the temperature at crown height reached below 23F," DiPaola told USGA's Patrick O'Brien. "Damage will show first in areas that are shaded or poorly drained. Low potassium or an imbalance between N & K [nitrogen and potassium] will also increase the likelihood of low-temperature injury."

ENVIRONMENTAL & IPM ADVANTAGES

Drift Control and Deposit Efficiency The Falcon enclosed spray boom is aerodynamically designed to eliminate the drift created behind simple booms, making spraying in the wind feasible. Government drift studies show it has less drift in a 24 mph wind than the standard legal open boom limitation of 6 mph. The boom also gives exceptionally even distribution with either high or low volume application rates.

Many models are available from 15 & 20 ft. electric fold retrofit booms for the JD 1800, to 40" or 80" GreensAp walking booms, complete sprayers for tractors, up to 300 gal. trailers, 5 & 12 ft. sprayers for out front mowers and self contained walking sprayers.

The IPM Choice The Falcon mechanically controls drift, letting the operator choose his drop size and application rate to maximize formulation efficacy and reliability. The increased efficacy, on target application, and environmental protection of the Falcon, make it the choice for IPM and the environmentally concerned applicator plus he is protected. Small drops increase reliability and efficacy required to minimize pesticide usage and maintain control.

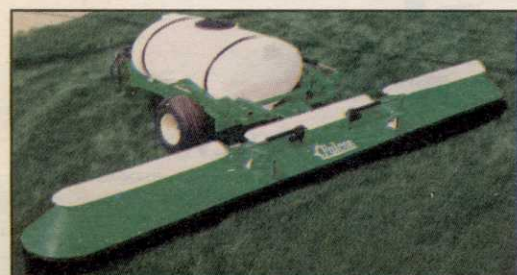


Public Comfort and Reduced Liability Risk

The public is concerned when it sees spray from an open boom floating in the same air they breathe. The Falcon contains the spray inside the enclosure, eliminating the floating droplets and the sight of spray. This makes the public more comfortable, building yours and your customer's image while reducing risk and liability.



See Your John Deere Dealer for Falcon Sprayers & Booms!
Fax (306) 975-0499



SANDOZ NAMES WINNER

DES PLAINES, Ill. — Sandoz Agro, Inc. has revealed that Scott Anderson, superintendent at Huntingdon Valley Country Club in Pennsylvania, won the grand drawing for a personal computer at the International Golf Course Conference and Show in Orlando, Fla. Anderson, a superintendent for 13 years, was chosen in a random drawing at the show. He will receive a Packard Bell 100 MHz Pentium Processor with CD-ROM drive, fax/modem and monitor.

ProStar okayed in NY; Tupersan now labeled for sod use

WILMINGTON, Del. — ProStar 50WP Fungicide has received approval from the New York Department of Environmental Conservation for use on turf in that state. ProStar 50WP is a systemic fungicide for controlling turf diseases caused by Basidiomycetes.

"ProStar provides effective control of brown patch, yellow patch, gray snow mold, red thread and pink patch," said Dr. David Spak of AgrEvo USA. "ProStar is currently the only product registered to suppress fairy ring."



ProStar 50WP will be available in premeasured, water soluble packages that reduce worker

exposure and package disposal. In addition, ProStar is registered for tank mixing with any number of other products for control of an even wider range of diseases. ProStar provides protection against disease for periods of from 14 to 28 days, depending on the disease and degree of disease pressure.

... KANSAS CITY, Mo. — PBI/Gordon Corp. has announced the expansion of the Tupersan Herbicide Wettable Powder label to include sod farms with the

Worker Protection Standard (WPS) required by EPA for use on grower sites.

Tupersan WP is a wettable powder containing siduron which is used for pre-emergent control of annual grasses such as crabgrass, foxtail and barnyardgrass in newly seeded areas as well as in established turf. It can even be used at the time of seeding without causing injury to germinating seedlings of most cool-season grasses. With an application of Tupersan WP, sod growers can prevent annual weed grasses even when overseeding in the spring.

Ciba/Sandoz

Continued from page 1

and Triumph insecticide.

Officials at Sandoz Turf and Ornamental agreed that product supply and service would continue uninterrupted. Officials also assured superintendents the Sandoz product line — which includes Sentinel fungicide, Barricade pre-emergent herbicide and Mavrik insecticide — would not be affected.

Shareholder approval is scheduled to take place April 23 and 24 in Switzerland. The deal must then pass safely through the anti-trust processes in the United States, Europe and Japan. Optimistic estimates indicate the process could be concluded in six months.

"We're working hard to make sure we're up and running as Novartis for the 1997 season," said Hintze.

Total consolidated agribusiness sales of the two companies in 1995 were nearly \$6 billion. In crop protection, including the turf and ornamental industry, Novartis will hold a strong position in four key areas: weed control, disease control, insect control and seed treatment.

According to officials from both firms, 15 new compounds are in an advanced stage of development, mainly in the weed control, disease control and insect control markets, several of which will have applications in the turf and ornamental industry.

Outside the agribusiness sector, the merger creates the second-largest pharmaceuticals company in the world, with combined sales of nearly \$13 billion.

Ciba's Dr. Alex Krauer will be chairman of Novartis, and Dr. Daniel Vasella of Sandoz will be president and head of the executive committee. Dr. Wolfgang Samo of Ciba will be one of eight members of the Novartis executive committee, representing the agribusiness sector. Integration teams will be formed immediately to initiate and carry out the merger implementation process.

This publication gives you good reading, good writing

and good arithmetic.

We present the information in our articles clearly, accurately and objectively. That's good writing. Which means good reading.

We present the information in our circulation statement clearly, accurately and objectively. That's good arithmetic.

BPA International helps us provide precise and reliable information to both advertisers and readers.

An independent, not-for-profit organization, BPA International audits our circulation list once a year to make sure it's correct and up to date. The audit makes sure you are who we say you are.

This information enables our advertisers to determine if they are reaching the right people in the right marketplace with the right message.

The audit also benefits you. Because the more a publication and its advertisers know about you, the better they can provide you with articles and advertisements that meet your information needs.

BPA International. Circulation Intelligence for Business & Consumer Media.

270 Madison Avenue, New York, NY 10016, 212-779-3200.



Lange offers Granular Dimension

Granular Dimension, new from Lange Professional Fertilizer Products, offers convenience and control for turf professionals who want to apply a granular herbicide without fertilizing. Ideal for pre-emergence crabgrass and goosegrass applications, it doesn't stain and has exceptional turf safety. It is also effective for postemergence applications up to the three-leaf crabgrass stage when applied at the upper end of the label use rate.

Uniquely effective, Lange's 0.27 percent Dimension herbicide is formulated into small diameter granules which provide

more uniform coverage and better absorption by the plant. The result is more effective weed control than comparable liquids or sprays — with less active ingredient. Granular Dimension is a Class E herbicide with low environmental impact and can be distributed effectively using any type spreader with little or no dust. Lange Dimension Granules provide season-long control and can be used for spring or fall applications without accompanying fertilizers. For more information contact Lange-Stegmann at 314-241-9531.

CIRCLE #301

Saco introduces the Flex-Blade

Saco Stamping and Assembly Co. has announced a breakthrough in motor shaft protection for walk-behind mowers with the new Saco Flex-Blade. Conventional mower blades nick, bend, break and even damage the motor shaft when they strike a solid object in tall grass. But the Saco Flex-Blade has spring-loaded joints that allow the ends to flex up and over rocks, tree roots, water lines and other hidden obstacles. These spring joints

also allow the blade ends to swing back, preventing the mover from becoming bogged down in particularly tall, heavy grass. The result is greater mowing power and superior cutting action.

Other features include an extra-long cutting surface, which eliminates the need for special mulching blades.

Made from high-quality, tempered steel, it's available in 20", 21" and 22" lengths. For more information, call 901-352-5351.

Acclaim goes after crabgrass

Acclaim Extra Herbicide has been introduced for use in turf and ornamentals to control crabgrass, goosegrass and other grassy weeds. A water emulsion herbicide containing 0.57 pound of active ingredient per gallon, Acclaim Extra is used for postemergence control of annual and perennial grassy weeds.

Acclaim Extra is a new formulation of fenoxaprop-ethyl which will replace the original formulation of Acclaim 1EC Herbicide, according to George Raymond, market manager for AgrEvo USA Co. "While the previous formulation contained an inactive isomer of the active ingredient, this isomer has been removed in the current formulation of Acclaim Extra. This allows the use rate of the active ingredient to be decreased ultimately reducing its application rate," explained Raymond, who pointed out that accurately measuring the product is as important as ever.

For more information, contact Raymond at 302-892-3030.

CIRCLE #303

Harmony upgrades Complete 14-3-6

Harmony Products has introduced its upgraded new product, Complete Turf & Landscape 14-3-6. Complete Turf & Landscape features an agronomically balanced formulation of all primary, secondary and micronutrients in an organic base granule with seaweed extracts and humic acid. "With the Complete products, we've expanded on our Bridge concept to provide all elements necessary for the absolute best agronomic approach in one easy granular application," said Mark Nuzum, president of Harmony's Plant Products Division.

Complete Turf & Landscape 14-3-6 is labeled for all turf and ornamental applications. For more information, contact Harmony Products at 800-343-6343.

CIRCLE #304

Maven provides spike alternative

Maven Golf Products has unveiled a new line of high-performance, non-metal golf spikes. The company says its SmartSpikes replacement inserts will provide superior traction to designs currently on the market, and are more durable than other non-metal spikes.

SmartSpikes Inserts are made of a durable blended material and feature four .19-inch-high curved ridges around the edge to enhance traction. The self-cleaning design (patent pending) pushes mud and dirt to the side and keeps the spikes clean.

For more information, contact Maven at 800-684-9132.

CIRCLE #305

Green It Up And Keep It Green!

	
TeeTime	TeeTime
21-3-16 w/ 97% NUTRALENE®	22-4-18 w/ 92% NUTRALENE®
the professional's partner®	the professional's partner®
The Andersons	The Andersons

The Andersons' Tee Time with NUTRALENE formulations incorporate the industry's ideal nitrogen source together with advanced, small particle fertilizer. In these or other fertilizer formulas you may select, NUTRALENE works two ways. You get an initial release of nitrogen followed up with a slow, controlled-release that can feed up to 16 weeks. You get it green and it stays green longer.

Tee Time Fertilizers with NUTRALENE:
Uniformly the best in the business.

1-800-225-ANDY

the professional's partner®

The Andersons

© NUTRALENE is a Registered Trademark of Nor-Am Chemical Company
© 1993 Tee Time is a Registered Trademark of The Andersons

CIRCLE #151

ABSOLUTE AUCTION

Mountain Harbour Country Club Hayesville, North Carolina

A PRIME CHAMPIONSHIP GOLF COURSE WITH AMENITIES

COMBINATION SEALED BID/OUTCRY AUCTION

Mountain Harbour Country Club is located in the heart of Mountain Harbour Golf & Yacht Club, a 600± acre planned residential development bordered by Lake Chatuge and Nantahala National Forest in beautiful western North Carolina.

Mountain Harbour Country Club consists of a championship 18 hole private golf course designed by Willard Byrd, driving range, tennis courts, pool, exercise facilities and a 5± acre marina on the 7000± acre Lake Chatuge.

This dramatic course is carefully carved from rolling valleys and sweeping mountainside elevations from 1950' to 2800'± providing year round golf play.

EXCELLENT OWNER FINANCING AVAILABLE

SEALED BID DEADLINE: Wed., May 8, 1996

Broker Participation Welcome • 5% Buyer's Premium
BIDDERS' SEMINAR: Wednesday, April 17
Extensive Property Information Packages available for \$50.00 (Visa/Mastercard accepted)

Call for free brochure: 1-800-778-0062

J.P. KING AUCTION GROUP

"America's Leading Real Estate Marketing Firm"™

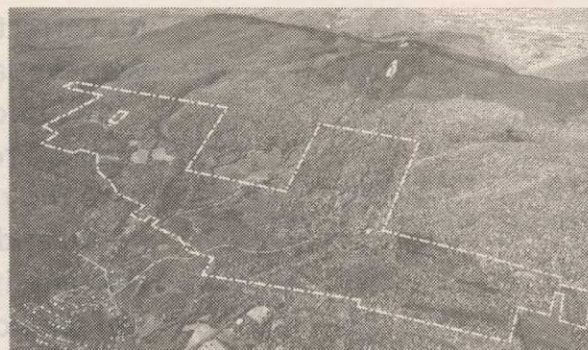
*Sale #195 conducted by J.P. King Auction Company, Inc., NCAL Firm #4740 • William M. Yoncos, CAI BICM5318 NCAL#2672

ACB COMMERCIAL

CIRCLE #152

Development Opportunity in the Berkshires

— Expanded Program —



Request for Development Proposals

The Commonwealth of Massachusetts is offering 1,063 spectacular acres at the base of Mt. Greylock in the town of Adams for the creation of Greylock Center. The expanded and fully approved master plan now allows for a conference center, up to 27 holes of golf, and residential development. The conference center will provide innovative programming of the highest quality in the areas of sustainable development and environmental education via an institute or thematic learning center. The Commonwealth will offer the Greylock Center site to a developer via a sale/long-term lease and will contribute \$6.5 million to leverage the necessary private investment. Greylock Cen-

ter is intended to showcase sustainable development and management techniques, and promote regional economic development.

To receive the Request for Development Proposal, please contact:
Stephen D. Brown, Project Manager
Commonwealth of Massachusetts
Department of Environmental Management
100 Cambridge St., Room 1404
Boston, MA 02202
(617) 727-3160 Ext. 521
E-mail: SBrown_DEM_Boston@state.ma.us
Fax: (617) 727-2630

MASSACHUSETTS



CIRCLE #153

Golf Course Marketplace

To reserve space in this section, call Diana Costello-Lee at 207/846-0600

EMPLOYMENT OPPORTUNITIES

SALESMAN WANTED

Sell to golf courses. Inexpensive, widely used pipe locator. Commission basis, 30%. **Bloch & Co., PO Box 18058, Cleveland, OH 44118. (216) 371-0979.**

GOLF COURSE CONSTRUCTION

Experienced shapers, finishers, project managers needed in Asia. Mail resume & references to: **World Golf Group Inc. 9 Music Square S. Ste 277, Nashville, TN 37203.**

WANTED

Experienced golf course construction superintendents irrigation supervisors and shapers. Must travel. Send resume to **Wadsworth Golf Construction Co. 1901 Van Dyke Rd. Plainfield, IL 60544. Phone (815) 436-8400. Fax (815) 436-8404.**

COURSE CONSTRUCTION

Superintendents/Shapers/Finish Operators needed. Fax Resume to: **Niebur Golf (719) 527-0337.**

SHAPERS WANTED

Golf Course Construction Shapers Needed. Must be willing to travel. Fax resume and date available to 616-547-7009.

REAL ESTATE

TEXAS GOLF COURSES

Nine & eighteen holes-statewide. Some with extra land, development lots. Descriptive list available. **Texas Golf Properties, 1603 Lightsey, Austin, TX 78404 Phone# (512) 442-7105. fax# (512) 442-1812.**

GET THE LATEST DEVELOPMENT

Subscribe to the **Golf Course News Development Newsletter** which tracks course projects under consideration across the nation! Just \$195 for a yearly subscription. **Call Editor Peter Blais at 207-846-0600.**

FOR SALE

LASER MEASURING

Laser measuring and sprinkler yardage markers. We do it all! Laser measure & installation of custom metal yardage markers for all types of sprinkler heads. **Fairway Yardage Designs: 1-800-368-2448.**

PIPE LOCATOR

INEXPENSIVE! Locates and traces underground drains, water pipelines of clay, PVC, ABS, steel & cement. Finds sprinklers, valves & clogs. Used by over 1000 golf courses! **Bloch & Co., PO Box 18058, Cleveland, OH 44118. (216) 371-0979.**

ARCH STYLE STEEL BUILDINGS

Build it yourself and save money! For cart and equipment storage. Factory direct. Save money on buildings in stock. 30 x 40; 40 x 50; 42 x 76; 51 x 90. Easy to erect. **Archway Steel Buildings: 1-800-344-2724.**

BUCKNER IRRIGATION CONTROLLERS

22 model 39824/5 Solid State field controllers. 3 years old, excellent condition. Includes COPS 4 software and interface board. **BEST OFFER. Call 810-433-0679.**

WANTED

GOLF COURSES WANTED

Southwest Golf will pay a \$25,000 finders fee for a lead which results in our purchase of the course. **Contact Dick Campbell 702-736-2222.**

Premium Replacement Parts for Outdoor Power Equipment

J. THOMAS DISTRIBUTORS, INC.

Introducing: **INTERMIX™** No Smoke NEW Oil

FOR THE UNBEATABLE PRICE OF \$23.50 PER CASE

OPTIMUM TRIM LINE™

PRICES START AS LOW AS \$9.95

Spindle Bearings

PRICED AS LOW AS \$4.80 EACH

Complete Gearbox

STARTING AS LOW AS \$149.99

FOR PRODUCT INFORMATION OR A FREE CATALOG OF OUR COMPLETE LINE OF MOWER AND SNOWBLOW PARTS CALL **1-800-422-4184**

POND & LAKE LINERS

- Buy Direct from fabricator 20, 30, 40 mil PVC, Hypalon, HDPE, & P.P.
- Custom fabricated panels of up to 25,000 S.F. available.
- Material Only, Material & Supervision, or Complete Installation service.



1-800-524-8672

1062 Singing Hills Road • Parker, CO 80134
303-841-2022 • Fax 303-841-5780

FOR SALE

SOLID BRONZE SIGNAGE

- Yardage Markers
- Tee Signs
- 100, 150, 200
- Commemorative
- Laser Measuring
- Sprinkler Tagging
- Yardage Books

FROM TEE TO GREEN, INC.
(800) 932-5223
Fax: (219) 637-6874

QUALITY!

- Laser Measuring • Scorecards
- Sprinkler Tagging • Yardage Books
- Redwood & Bronze Tee Signs

FORE BETTER GOLF, Inc.
1-800-468-8672
Fax: 708-893-0455

AQUAMASTER AERATORS

Fountains and Aerators decompose organic solids and prevent algae blooms. Available in ten spray patterns, 3 year motor warranty 1HP & up, only UL Listed system.



Superior Aquatic Management Systems
16024 CTH X, Kiel, WI 53042
PH 414-693-3121/ 1-800-693-3144
FAX 414-693-3245



Mid Tenn Turf, Inc.

Services -
• Row Plant Sprigging • Broadcast Sprigging
• Sod Installation • Hydro Seeding • Laser Grading
• Complete Athletic Field Construction & Renovation

Sod Varieties -
Available in 16" x 24" Slab or 42" x 120" Big Roll
• Blended Fescue • Vamont Bermuda
• 419 Bermuda • Quickstand Bermuda
• Tifway II Bermuda • Myer Zoysia

Sprigs available in all Bermudas and Zoysia
Manchester (615) 728-0583
Nashville (615) 254-4728
Fax (615) 728-0168 Toll Free 1-800-782-4083
4698 New Bushy Branch Rd.
Manchester, Tennessee 37355

HOW TO ORDER A CLASSIFIED AD

RATES: \$85 per column inch (25-35 words, including a bold headline). Each additional 1/4 inch is \$25. If ordering a logo, please indicate and include an extra \$45; for a blind box, please indicate and include an extra \$20. All line ads must be prepaid. All rates are per insertion. For more information, call Diana Costello-Lee at (207) 846-0600. To place your classified ad, mail your ad copy with payment to: **Golf Course News, PO Box 997, 38 Lafayette St., Yarmouth, ME 04096 or fax to: (207) 846-0657**

Your Name _____
Company Name _____
Address _____
City _____ State _____
Zip _____ Daytime Phone _____

- ☐ Payment enclosed, or
☐ Charge to my credit card
☐ Visa/MC _____ Exp. date _____
☐ Am Ex _____ Exp. date _____
Signature _____

☐ Logo ☐ Blind Box

May 1996

Special Report: Pond & Lake Management

Advertising space close:
April 15th

Materials close:
April 17th

*Do your
competitors
know
something
you don't?*

Subscribe to the
**Golf Course
News
Development
Letter**—and find out.

Who reads the **Golf Course News Development Letter**?

- 37% are suppliers
- 24% are builders
- 20% are course architects
- and almost 50% are owners and/or presidents of their firms

Why do they read the **Golf Course News Development Letter**?

- it tracks golf course projects planned or under consideration across the nation
- it provides names and telephone numbers of the key contact people associated with each project

Just \$195 for a year's subscription
— 24 issues a year!

Don't be left behind.
Contact Editor Peter Blais
at 207/846-0600.

INSIDE INFO

CALENDAR

April

9 — Calibration and Safety of Pesticide Application Equipment Seminar in Norton, Mass. *

10 — Irrigation Water Quality Seminar in Las Vegas, Nev. *

11 — Calibration and Safety of Pesticide Application Equipment Seminar in Florence, Ky. *

16 — Irrigation System Scheduling, Repair and Management Seminar in Jamesville, NY. *

23 — Calibration and Safety of Pesticide Application Equipment Seminar in Deerfield, Beach, Fla. *

25 — Irrigation System Scheduling, Repair and Management Seminar in Deerfield Beach, Fla. *

May

14 — Irrigation System Operations and Principles of Design in Redmond, Wash. *

18-19 — Golf Range Development Seminar in Arlington, Va. Contact Forecast Golf Group at 804-379-5760.

June

3-21 — Center for Irrigation Technology's irrigation classes in Fresno, Calif. Contact Kate at 209-278-2066.

14 — Drainage System Seminar in Naples, Fla. *

July

25-27 — Turf Producers International Summer Convention and Field Days in Sacramento, Calif. Contact Tom Ford at 847-705-9898.

30 — Midwest Regional Turf Field Day in West Lafayette, Ind. Contact 317-494-8039.

30-31 — Golf Course Development: Designing and Redesigning to the Market at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

August

1 — Golf Course Design at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

5-6 — Golf Course Environmental Considerations at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

7-8 — Golf/Residential Site Planning at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

9-10 — Golf Clubhouse Design and Site Planning at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

28 — Ohio Turfgrass Foundation Field Day in Columbus. Contact Julie Weller at 614-261-6750.

October

7 — Ohio Turfgrass Foundation Golf Tournament in Centerville. Contact Julie Weller at 614-261-6750.

27-29 — Public Golf Forum, sponsored by Golf Course News, in Chicago. Contact Susan Foden at 207-846-0600.

November

12-14 — Kentucky Turfgrass Council Conference and Trade Show in Lexington, Ky. Contact 606-622-2228.

12-15 — Turf and Grounds Exposition in Rochester, N.Y. Contact NYSTA at 800-873-TURF.

* For more information contact the GCSAA Education Office at 9800-472-7878.

Golf Course Marketplace

To reserve space in this section, call Diana Costello-Lee, 207-846-0600



YORK
BRIDGE CONCEPTS
The Professional Bridge Company

Timber...

- ✓ Bridges
- ✓ Walls
- ✓ Boardwalks
- ✓ Shelters

Custom Build On-Site
Nationwide Construction
Environmental Experience
3 Year Written Warranty

800-226-4178

CIRCLE #170

Featuring:
Hancor
Technology Innovation Solutions

Drain Pipe

Nyoplast Drains

NDS Drains

Geotextiles

Lake & Pond
Liners

Silt & Safety
Fences

Serving the Golf Construction Industry Worldwide

EAGLE GOLF
&
LANDSCAPE PRODUCTS
1-800-21-EAGLE



**Eagle Interface for
Greens Construction**

CIRCLE #172

P. O. Box 806
201 40th St. NE

STEADFAST BRIDGES

FORT PAYNE, AL
35967

"CROSSING THE NATION WITH
BRIDGES YOU CAN DEPEND ON"

ENGINEERED AND FABRICATED TO
FIT YOUR GOLF COURSE NEEDS,
FROM THE CONNECTOR (PICTURED)
TO THE ORIENTAL "EDO" SERIES.
PEDESTRIAN, GOLF CART AND
VEHICULAR BRIDGES. SINGLE
SPANS TO 200 FEET AVAILABLE.



CALL TODAY FOR FREE BROCHURES
1-800-749-7515

LANCASTER COUNTRY CLUB, LANCASTER, PA

CIRCLE #174

Featuring
CERTIFIED

MEYER Z-52 ZOYSIA

- EL TORO ZOYSIA
- TALL FESCUE
- TIFWAY II
- TIFTON 419
- TIFDWARF
- MIDLAWN

1-800-
666-0007

QUAIL VALLEY FARM

P.O. BOX 5508
LITTLE ROCK, AR 72215

"Of course
we're playing on
Quail Valley!"



ENGRAVED YARDAGE LABELS

- Bright Colors • Fasteners included
- Orders quickly shipped UPS **Free Samples!**

NEW ITEM... "THE SOLUTION"

For Areas Without Sprinklers.
Put Your Message Plus Yardage
Anywhere: Hazard Points,
Tees, Practice Ranges.

YARD EDGE GOLF
1-800-284-9273

165

186

P.O. Box 13159

Wichita, KS 67213

CIRCLE #171



**PAVELEC BROTHERS
GOLF COURSE CONSTRUCTION CO., INC.**

- ✓ New Construction
- ✓ Renovation
- ✓ Field Drainage Systems

TONY PAVELEC
(201) 667-1643
EMIL PAVELEC
(201) 939-6182

98 Evergreen Ave.
Nutley, NJ 07110

CIRCLE #173

TURBO TURF HYDRO SEEDING SYSTEMS



- ✓ Seed mulch fertilize 1 step
- ✓ Cut germination time
- ✓ Seeding cost: 1-1 1/2¢ a ft.
- ✓ Mix a load in 1 minute
- ✓ Spray @ 300 sq/ft/min
- ✓ Save TIME and MONEY

Need to repair, tee's, walkways etc: 50 Gallon \$ 1295.00, 100 Gal. \$ 1995.00
Need to remodel, re-do fairways, etc: 300 Gal. \$ 3995.00 500 Gal. \$ 4795.00
Need to build a course, add 9, etc: 750 Gal. \$ 7995.00, 1000 Gal. \$ 9995.00

FOR A FREE HYDRO SEEDING INFO PACK, CALL:

BADGER ASSOCIATES

1108 THIRD AVE., NEW BRIGHTON PA 15066
412-846-0670 800-822-3437 FAX 412-846-3470

CIRCLE #175

HARCO DUCTILE IRON FITTINGS FOR GOLF COURSE IRRIGATION SYSTEMS

Sizes 2" through 12", all configurations
including "knock-on" repair couplings.
High Strength, high corrosion
resistance.

The Harrington Corporation
P.O. Box 10335
Lynchburg, Va 24506
804-845-7094 Fax 845-8562



CIRCLE #177

THE AFFORDABLE GOLF BAG RACK



- FREE STANDING**
- Lightweight
- Maintenance Free
- Control Pedestrian & Cart Traffic
- Stable on turf or hard surfaces

WALL MOUNTED

- Custom Colors or Galvanized
- Bag Drop, Driving Range, Clubhouse
- 8 ft. holds 14 bags & 5 ft. holds 8 bags



the KEEVYN company 1-800-260-7599
mfg. by Perpetual Products, Patent Pending

CIRCLE #179

Grass-Craft
Air Mowers

The Ultimate Turf Grooming Machine

- Handles Steep Slopes
- Edges Deep Bunkers
- Mows To Water's Edge
- Floats Over Holes
- No Wheelmarks or Scalping

Grass Craft "Air" Mowers Feature:

- Unbreakable Deck
- Safety Shut-Off System
- Nylon Cutting Blades
- 5 H.P. Tecumseh Engine
- Full 1 Year Warranty

390 Presumpscot St., Portland, ME 04103
Tel: 207-773-6651, 1-800-760-1680
Fax: 207-773-6904 Dealers Wanted.



Made in U.S.A.

CIRCLE #178

Golf Course Marketplace

To reserve space in this section, call Diana Costello-Lee at 207-846-0600

ADVERTISERS' INDEX

Cir.#	Advertiser	Page
116	AgrEvo	20
148	AgrEvo	55
111	American Cyanamid*	15
124	American Cyanamid	28-29
150	American Cyanamid*	57
129	Ametek	35
151	The Andersons	58
102	Aqua Control, Inc.	3
133	Aquatrols	40
175	Badger Associates	60
126	BASF	31
135	Bayer Corporation	42
139	Brouwer Turf Equip.	45
104	Buckner/Legacy	4
189	C-LOC Retention Systems, Inc.	61
—	Ciba	5
—	Ciba	50
110	Club Car	14
185	Continental Bridge	61
172	Eagle Golf & Landscape Products	60
181	Enwood Structures	61
186	Excel Bridge Mfg.	61
149	Falcon by Rogers Innovative	56
108	Flowtronex/PSI	11
127	Fore Par	32
112	Formost Construction Co.	16
178	Grass Craft	60
147	Griffin Industries/Nature Safe	54
177	Harrington/Harco Corp.	60
117	Hickson Kerley	21
156	Jacobsen	64
180	Jesco Products/Pinhigh	61
106	John Deere	6-7
152	JP King Auctions	58
183	JPF Distributors	61
179	Keeyn Company	60
188	Kirby Markers	61
128	Kubota	33
141	Martin Marietta Magnesite Specialties	46
153	Mass. Dept. of Environmental Mgt.	58
113	Millcreek Manufacturing	18
131	Montco Products	36
146	Nations Credit Comm. Corp./Greyrock Capital	52
130	Par Aide	34
114	Partac Peat	18
173	Pavelec Bros. Construction	60
187	Precision Small Engine	61
184	Precision Tool Prod. Co.	61
155	Pursell Industries	63
176	Quail Valley Farms	60
138	Rain Bird	44
118	Ransomes Corporation	22-23
121	Ransomes, Ransomes Corporation	25
123	Ransomes, Ransomes Corporation	27
140	Regal Chemical	46
107	Rhone-Poulenc	8-9
109	Rohm & Haas	12-13
154	Seed Research of Oregon	62
137	Smithco	43
143	Southern Corp. Promo.	48
134	Standard Golf	41
174	Steadfast Bridge Co.	60
122	Tee & Green Sod	26
101	Tee-2-Green	2
125	Terra International	30
132	Toro Comm'l. Prod. Div.	38-39
145	Toro Comm'l. Prod. Div.	51
182	Trims International Software	61
103	Turflite, Inc.	3
120	Verti-Drain/Emrex	24
119	Watersaver	24
136	West Coast Turf	42
171	Yard Edge	60
170	York Bridge Concepts	60
115	Zeneca Professional Products	19
142	Zeneca Professional Products	47

* Appears in regional editions.

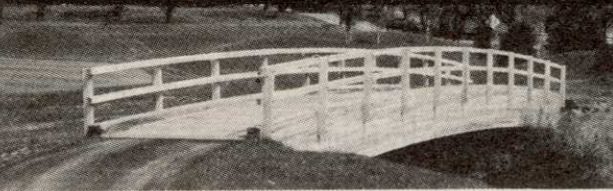
Keep That Edge

pinhigh
reel sharpening compound

Contact Your Local Distributor or Call Us
Toll Free 1 (800) 422-4748

CIRCLE #180

LAMINATED WOOD BRIDGES



PEDESTRIAN & VEHICULAR
Order Direct From The Leading Manufacturer in U.S.
• Complete Prefabricated Packages • Ready for Fast Erection
• Direct Distribution Throughout the U.S. • Custom Design & Engineering
EnWood Structures
CALL 800-777-8648
P.O. Box A • Morrisville, NC 27560
Tel. 919/467-6155 • FAX 919/469-2536

CIRCLE #181

DIRTY BIRDS a PROBLEM??

Scare them away with harmless,
**APPROVED, ENVIRONMENTALLY SAFE
BIRD CONTROL NOISEMAKERS**
**UNIQUE, MORE DISCREET PRODUCTS
ESPECIALLY FOR GOLF COURSES**
near residential areas are available.

We CAN help solve your bird problems.
CALL TODAY: 1-800-582-8843
JPF Distributors

CIRCLE #183



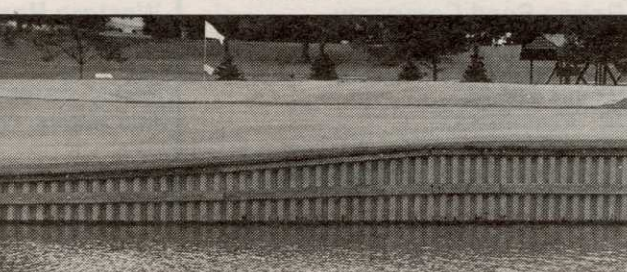
Nationwide delivery • Install in less than two hours
Golf Course Bridges!
1-800-328-2047
Thousands in use.
Built to last.
Sponsor Member
CONTINENTAL BRIDGE
Route 5, Box 178, Alexandria, MN 56308 • (612) 852-7500
NGF NATIONAL GOLF FOUNDATION B-DA-CL

CIRCLE #185

Flymo Hovering Trimmers

GCT12, GCT15 and GCT21
Lightweight, Powerful engine
Fast and easy to use
Assembled in the USA
Multidirectional cutting
Starting at \$369.95
NEW for 1996
Adjustable Cutting Heights
(From 3/4" to 2")
PRECISION
SMALL ENGINE CO., INC.
1-800-345-1960
FAX 954-973-8032
2510 N.W. 16TH LANE
POMPANO BEACH, FL 33064

CIRCLE #187



C-LOC Developed and introduced the first vinyl plastic interlocking panels for soil retention applications
PANEL FEATURES:
• Attractive appearance
• Easy to install
• Proven performance
To find out more about C-LOC, call or write today:
C-LOC Retention Systems, Inc.
P.O. Box 0283 • Utica, MI 48318
(810) 731-9511 • FAX (810) 731-9516

CIRCLE #189

TRIMS for Windows

The Building Blocks of Grounds Management Software

TRIMS for Windows Features:
• Budgets & Expenses Tracking
• Inventory, PO's & Fuel Reporting
• Personnel & Labor Activity
• Equipment Maint. & WO's
• Chemical & Fertilizer Records
• Event Scheduling
• TRIMS DrawView for site plans
• Weather Station Communication
• On-Line Reference Manual
• Multi-Tasking
• Multi-User (2 Station) Capability
• On-Screen Report Preview
• Runs on Windows 3.1 or 95
TRIMS Software International
3110 N. 19th Ave., Suite 190
Phoenix, AZ 85015
Call for your FREE Demo Disk
(800) 608-7467
(602) 277-0067

CIRCLE #182

WETTING FORK™

COOL HOT SPOTS FAST!

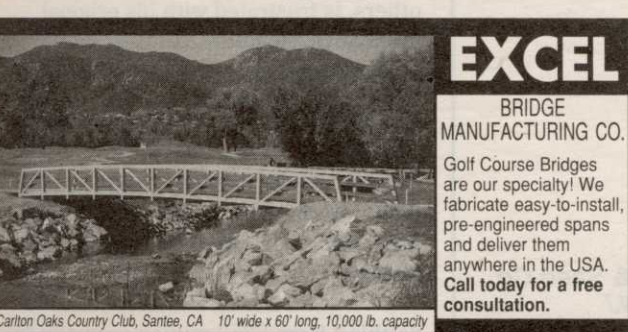
- Wets hydrophobic spots in seconds
- Comes with 2 sets of tines—3" or 4 1/2"

For more information or to purchase a Wetting Fork, call 1-800-253-2112

Precision Tool Products Co.

7836 Bethel Church Rd. • Saline, MI 48176
1-800-253-2112, 313-429-9571 or Fax 313-429-3985

CIRCLE #184



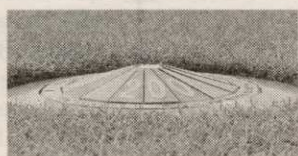
Our classic design, with a look that stands the test of time.

800/548-0054 (Outside CA)
12001 SHOEMAKER AVENUE, SANTE FE SPRINGS, CA 90670
310/944-0701 • FAX 310/944-4025

CIRCLE #186

The Visible Yardage Markers Just Got More Visible!

By popular demand The Kirby Marker System is now available in Red, White, Blue & Yellow as well as traditional Green.



Nobody Does It Better!

The Kirby Marker System
619.931.2624 800.925.4729

CIRCLE #188

Virginia Beach seeks full-fledged golf destination status

By PETER BLAIS

VIRGINIA BEACH, Va. — A golf destination waiting to happen is the way many local people view this coastal city. But it is a vision that has remained clouded for many years, much to the frustration of city officials and would-be developers.

The city has been issuing Requests for Proposals (RFPs) to develop municipal property into golf facilities since 1992, but each one has fallen through. Most recently Brassie Golf Corp. pulled out of a 30-year lease arrangement signed in 1994 to build an 18-hole course on the 185-acre West Neck tract.

The city awarded Brassie the

contract to build a Hale Irwin-designed layout back in 1994. But the Tampa, Fla., firm said it chose to abandon Virginia Beach because of the city's announced plans to build five more courses as recommended in a recently completed feasibility study.

Brassie said the city never told the company it planned to build five new courses close to West Neck. The city countered that Brassie knew all along about plans to make the city into a golf destination.

Meanwhile, West Neck and another 1,200 acres of municipal land called Lake Ridge, where the city hopes to build two more courses, lie golf-free. The city is working with Brassie to

reassign the West Neck contract to another developer and is preparing to issue another RFP this spring for a public/private partnership arrangement to develop Lake Ridge.

"There's a lot of frustration, especially among the pro-golf supporters on the City Council," said city Director of Parks and Recreation Susie Walston. "They're very unhappy nothing has been built and very anxious about getting on with plans to make this a golf area. We were hoping to have something under construction by now."

With a local population of 1.5 million within the Hampton Roads area (Virginia Beach, Newport News and Norfolk), an international airport and

the cities of Richmond (1 1/2 hours) and Washington, D.C. (3 hours) within easy driving distance, Virginia Beach would seem an ideal location for more courses. A \$52,000 feasibility study by the accounting firm Pannell, Kerr Forster recommended the city build five high-quality layouts. The study noted:

- There are 51 potential course sites in Virginia Beach, with 18 parcels of 150 or more acres.

- Course construction costs, including clubhouses and other amenities, should run between \$6.5 million and \$10.2 million each.

- Green fees at three of the courses should range from \$35 to \$40 and from \$49 to \$65 on the other two.

- Public/private ventures with the city donating land or making it available at minimal cost is the best way to develop the area.

- Easing zoning and permitting restrictions, extending utilities and making gray water available for irrigation would attract developers.

- Redeveloping existing Red Wing Golf Course near Camp Pendleton would give the city more quality golf holes.

- The city should seek development bids for the Lake Ridge property, already home to a 20,000-seat amphitheater.

- The city should consolidate advertising and promotion through a single Virginia Beach Golf Committee and consider regional alliances from Williamsburg to North Carolina.

"We don't want to be another Myrtle Beach," Walston said. "We see our niche as more of an Ocean City (Md.), Pinehurst (N.C.) or Williamsburg."

But Myrtle Beach might be something worth shooting for, according to Donald Wizeman of International Resort & Golf Resources in Myrtle Beach. Wizeman, who grew up in Virginia Beach, has helped developers locate golf facilities in Myrtle Beach, southern Virginia and Mississippi. He, like many others, is frustrated with his original hometown's inability to attract golf development. He offered two comparisons between his new and old homes.

- Virginia Beach with a \$5 million advertising budget attracts 997,000 tourists yearly. Myrtle Beach has less than half the annual advertising budget (\$2 million) yet attracts 12 million visitors.

- Virginia Beach's tourist economy doubled from \$250 million annually in 1980 to \$500 million today. Myrtle Beach more than tripled its tourist revenues from \$1.5 billion to \$5 billion during the same time period.

"Many of the courses they have opened in Williamsburg the past few years could have ended up in Virginia Beach if they had tried to develop things properly," Wizeman said.

Walston said she doesn't look at Williamsburg's growth or that of any other area as a missed opportunity for Virginia Beach.

"People ask why this has taken so long," she said. "There's a perception that private development like we're trying to attract can occur faster than public development. But there is still a local process you have to work your way through, especially when you're talking about leasing public land. That takes time."

**ONLY these companies can insure
that every bag of seed you purchase from them
is backed by...**

Selection. Breeding. Testing. ... and more testing.

At Seed Research, when we release turfgrass varieties, mixtures or blends, you can be sure they have gone through the most stringent research program in the business.

They will perform—

We guarantee it!

**Our
Guarantee.**



Agra Turf
Searcy, AR

Agrico Sales Ltd.
Delta, British Columbia

Agriturf, Inc.
Hatfield, MA

Andersen Turf Supply
Huntington Beach, CA

Arkansas Valley Seed Co.
Denver, CO

Arthur Clesen, Inc.
Wheeling, IL

Automatic Rain Company
Menlo Park, CA

Bojo Turf
Frankfort, IL

Don Jackson
Dothan, AL

Evergro Sales Inc.
Kirkland, WA

Germain's
Fresno, CA

Graham Turf Seeds Ltd.
Lindsay, Ontario

Green Valley Turf Farms
Canfield, OH

Green Velvet Sod Farms
Bellbrook, OH

Greens Unlimited
Long Beach, CA

Indiana Seed Co.
Noblesville, IN

Kelly Seed Company, Inc.
Hartford, AL

L.L. Olds Seed Co.
Madison, WI

Michigan State Seed Co.
Grand Ledge, MI

Multitynes Ltd.
Thornhill, Ontario

Oklahoma Turf & Irrigation
Tulsa, OK

O.J. Compagnie
Sherrington, Quebec

Peterson Seed Co.
Savage, MN

Professional Turf Center, Inc.
Tigard, OR

PRO-SEED Turf Supply, Inc.
Chantilly, VA

Robco Seed Company
Springfield, TN

Royal Seeds
St. Joseph, MO

Seed Research of California
Loomis, CA

Seed Research—Texas
Dallas • Plano • Belton

Seeds West Inc.
Phoenix, AZ

Smith Turf & Irrigation Co.
Charlotte, NC

Southeastern Turf Grass Supply
Jacksonville, FL

Sweeney Seed Company
King of Prussia, PA

Thomas Bros. Grass
Nashville, TN

Turf and Garden
Chesapeake, VA

Turfgrass, Inc.
South Lyon, MI

Twin Light Fertilizer & Seed Co.
Monmouth Junction, NJ

United Seeds
Omaha, NE

Walker Supply Inc.
Pittsburgh, PA

Westgro Horticultural Supply
Calgary, Alberta

Zehco Sales & Marketing
Las Vegas, NV

SEED RESEARCH
OF OREGON, INC.

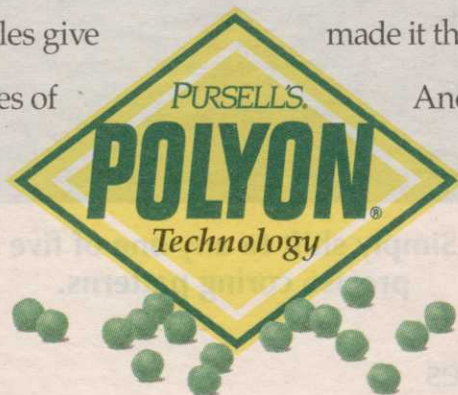
For additional company locations and international inquiries please call us at 1-800-253-5766

CIRCLE #154

GREENS COMMITTEE
LEAKS WEED PROBLEM
OTHER DISEASES VA
NATURAL DISASTERS M
EQUIPMENT PROBLEM
PERSONAL HELP PREPARED

WITH PURSELL'S POLYON, YOU HAVE ONE LESS THING TO WORRY ABOUT.

Fertilizers containing Pursell's Polyon® green granules give you precious peace of mind amid all the uncertainties of maintaining a world-class golf course. For one thing, it's *predictable* – it slowly meters out nitrogen and lasts exactly as long as it promises – proven accurate within days. It's *flexible* – Polyon is so advanced, it can be blended to release over a period ranging from six weeks to a year. It's *proven* – professional turf experts have



made it the nation's leading pure polymer-coated turf fertilizer.

And it's *safe* – your course receives an even dispersion of nitrogen, month after month. But most importantly, it *performs* – keeping you and your course looking good, month after month. So make sure you buy fertilizers with Pursell's Polyon technology for your course. And let it do most of the worrying for you. For more information or for the distributor nearest you, call 1-800-422-4248.

The Green color of the POLYON® capsule is a trademark of Pursell Industries, Inc.

Ask about a
\$500
certificate on
LF Fairway Mowers
thru 6/30/96

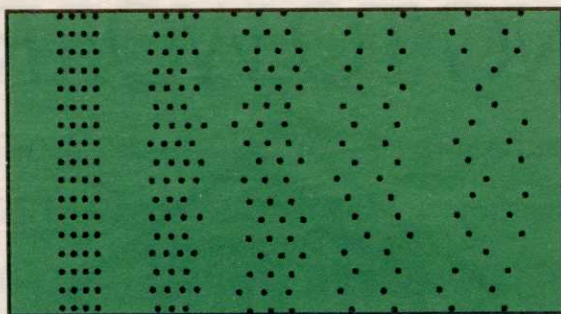


Stunning good looks aren't its only exclusive features.



Jacobsen's VA-24 Vaerator™ offers you more than any other aerator on the market. Exclusive quick-shift delivers five coring options, including the industry's only 2" x 1" pattern. Convenient fingertip controls make the VA-24 easy to operate. The 11 hp Honda engine is powerful and reliable. And the flip-up hood design makes routine service easy. The features are great, and the performance is even better. Durable 3" tines ensure

deep, vertical holes to give your turf the benefits of a comprehensive aeration program. The result is healthier turf, and that makes you look good. Ask your Jacobsen distributor for a VA-24 Vaerator demonstration today.



Simply shift to any one of five precise coring patterns.

THE PROFESSIONAL'S CHOICE ON TURF.

JACOBSEN
TEXTRON

Jacobsen Division of Textron Inc.

J-11-5L