

# GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

**Eastward Ho!**  
A look at Asian development  
pages 29-44

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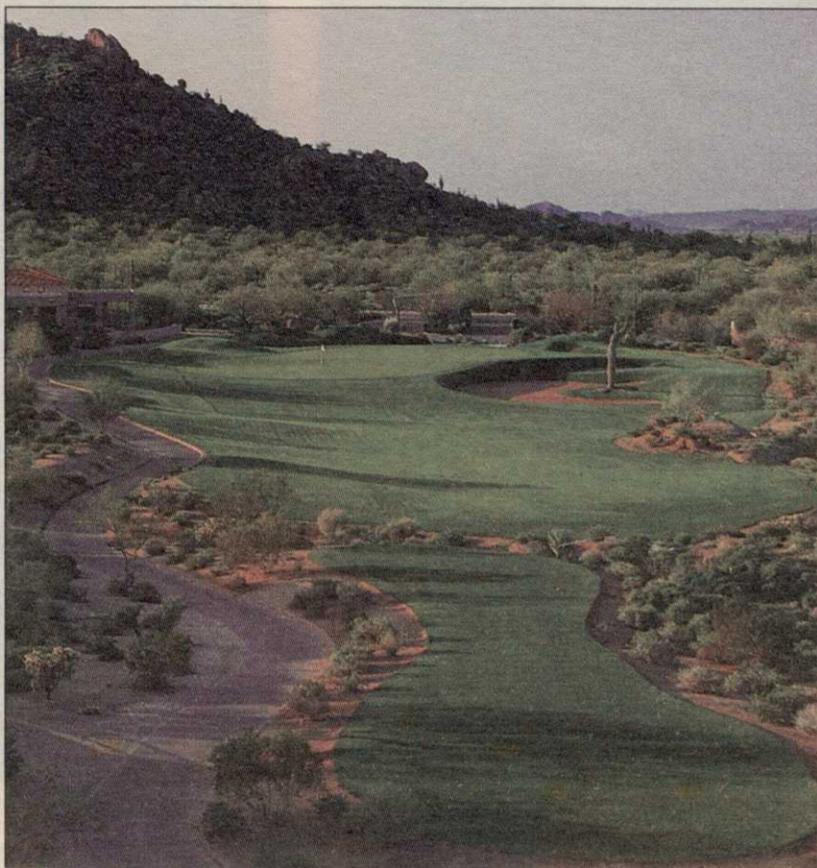
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#### BOULDERS EXPANDS

The 10th hole at the new Boulders South Course in Carefree, Ariz., designed by Jay Morrish, was the old 6th hole of the Boulders Nine. Morrish used the existing nine, refurbishing a couple of its holes, in a rerouting plan to devise the new 18-hole layout. See story on page 20.

Tony Roberts photo

### All systems go at Pebble

By Hal Phillips  
PEBBLE BEACH, Calif. — The 12 months preceding this year's U.S. Open at Pebble Beach have been anything but dull. Maintenance crews have worked feverishly to recreate some of Pebble's original 1919 splendor, the foreign owner had — until recently — wrangled with state agencies over the possibility of privatization, and ownership ultimately changed hands. However, with June lurking just around the corner, the course itself is in good shape, despite substantial

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## Golf Course Management & Construction

### ENVIRONMENTAL ISSUES

Hot off the press

### USGA defines research

By Peter Blais  
A comprehensive reference book summarizing the scientific literature on the positive and potentially negative environmental effects of golf courses will be available late next month. "Golf Course Management & Construction: Environmental Issues" will be released May 29 by the United States Golf Association Green Section. The USGA says the book provides a scientific rather

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## Matching money with movers and shakers

By Mark Leslie

Deals are already being struck by investors and entrepreneurs connected by the golf industry's fledgling electronic matchmaker.

Scott Marlowe of Forecast Golf Marketing and Financial Systems, Inc. in Richmond, Va., said the Golf & Recreation Investment Program made 51 matches in February alone, and at least two deals were in negotiation stages in March.

"We've gotten an unbelievable response. We expected it to ... start out slow. But we really got an explosion," said Marlowe, who operates Forecast with partner Jim Murphy.

"Now we have business brokers, lawyers and accountants referring their clients to us," he said. "We planned for a direct-mail marketing as GRIP got older, to target those groups for that purpose. But they

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## 1st Vermont project OK'd

By Peter Blais

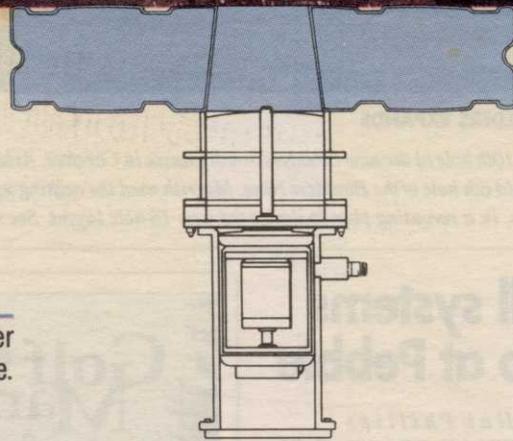
A Vermont advisory board has approved an integrated turf management plan and conservative risk assessment for a golf course, the first such approval under the state's strict turf chemical guidelines adopted two years ago.

The Vermont Pesticide Advisory Council's action in favor of Manchester's Equinox Golf Course could make it easier for future golf course projects to get off the drawing board in the state of Vermont, considered among the most difficult in which to gain building approval because of its Act 250 development law, according to an agriculture department official.

"It's significant that someone has come in and come out the other side of the process," said Jim Leland, a turf specialist with the Vermont Department of Agriculture. "The first is always interesting. We have more projects

Continued on page 47

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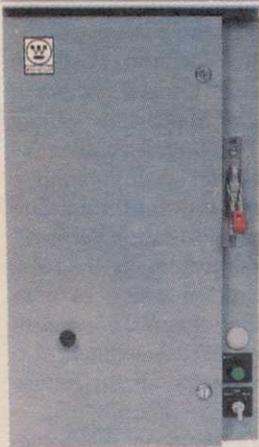
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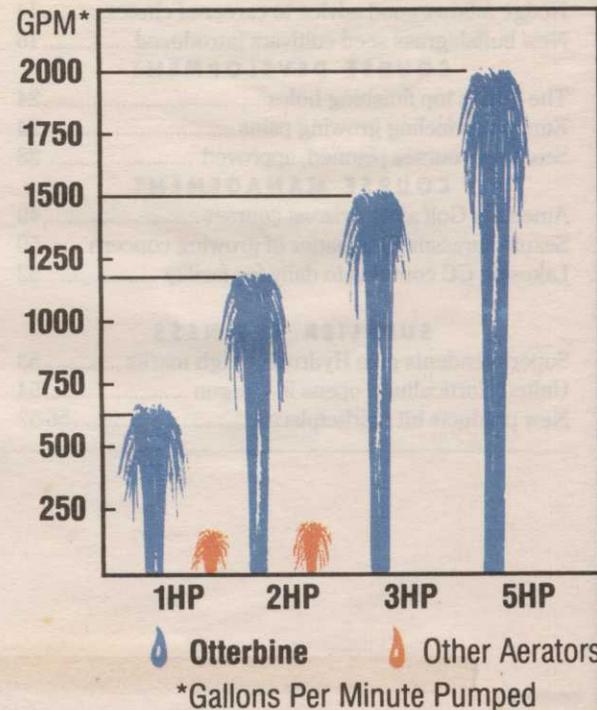
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## U.S. course openings reach 20-year high

By Hal Phillips

JUPITER, Fla. — During 1991, rarely did a day pass without a golf course opening somewhere in the United States. National Golf Foundation figures show 351 new layouts were christened last year, marking a 20-year high for construction.

The totals for 1989 (289) and 1990 (290) pale by comparison. The 1991 total is the highest since 1971, when 371 courses came on line.

That's the good news.

The bad news is this: NGF research shows that it takes an average of almost three years for most golf course development projects to move from inception to completion. In other words, 1991's figure is a lagging indicator. Many of the courses that opened last year were undertaken in 1988-89 — before the recession hit.

It's this time frame that leads NGF President and Chief Executive Officer Joseph Beditz to issue words of caution.

"I seriously question whether we can sustain this level of golf course development activity throughout this decade," he said. "Current conditions being what they are, I'd say a rate of 250 a year seems more likely."

"I also believe there's still plenty of opportunity for projects that have sufficient equity capital, proven managers and which are targeted for markets where the need for them can be demonstrated."

Current figures show 583 courses under construction in 1991 — 450 scheduled to open in 1992. But when the money stops, so do the bulldozers.

According to the NGF, the conditions believed to have the greatest ill effect on golf course development include the high cost of land; decline of the real-estate market and its impact on the number of future courses that will be real-estate related; available financing that does not require a high percentage of equity participation on the borrower's part; and high cost of meeting environmental regulations.

After 1992, NGF researchers see activity leveling off even more, despite nationwide indications the recession is lifting. In 1990, for example, the number of courses categorized as "in the planning stages" dropped 13 percent, from 781 to 681.

Part of this downturn is tied to a decline in golf course communities.

"Three or four years ago, upwards of 50 percent of all course construction was associated with new housing," said Richard Norton, vice president of the NGF and its National Golf Course Corp. "It was simply a reflection of the number of developers who were using golf courses to increase the value of their homesites."

At the close of 1991, only 34 percent of the 583 courses under construction — and only 33 percent of those that opened — were real-estate related.

Florida led the nation in course openings for the seventh straight year with 35, followed by California with 21. Michigan and South Carolina opened 20 apiece.

In terms of courses under construction, Michigan leads the pack with 45. Illinois and California are next with 34 and 31, respectively.

## Michigan project muddled by wetlands concerns

Wetlands protection has stymied construction of a golf course proposed for Michigan's Leelanau Peninsula.

Developer Robert Kuras of Glen Arbor wants to build a course for private use by residents of his pricey Homestead development. Three holes are planned to run along and across nearby Crystal River.

However, Environmental Protection Agency officials have argued that building the course as proposed would require drainage of some sensitive wetlands. The EPA also asserts that fertilizer and pesticides would drain into the river, which empties into Lake Michigan.

The EPA wants the holes built further from the

river. But Kuras contends the river location is essential, and he's brought in some heavy political hitters to speak on his behalf.

During a recent meeting at the EPA offices in Chicago, Michigan Gov. John Engler urged the federal agency to relax its opposition. Lt. Gov. Connie Binsfield, who attends the same church with Kuras, has also supported the idea of building next to Crystal River.

Nothing has been resolved as yet. Engler's top policy aide, Dennis Schornack, said he's optimistic the matter can be worked out "in the near future."

However, if not, "we'll have to consider other steps." That could include a start to construction, thus challenging the EPA to go to court for a stop order.

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# NGF to conduct major national course survey

JUPITER, Fla. — The National Golf Foundation will conduct a national golf facility operations-and-maintenance survey this spring, the results of which will be published in a special report to be available this fall.

The questionnaire will be mailed to the owners/operators of all 13,000 U.S. golf facilities in May.

This report, among other things, will provide a comprehensive overview of golf course revenues and expenses on both a national and regional level.

It will, for example, enable golf course owners/operators or developers to compare their revenues and costs with the average for their area and type of facility.

The data being sought falls into the following areas:

• **Facility Characteristics:** e.g., the number of months open during a typical year, estimated rounds played annually, availability of a practice range.

• **Course Maintenance:** e.g., the average size of greens/fairways, source and amount of water used

per year, type of irrigation system used.

• **Rates and Fees:** for example, the 1991 weekend and weekday and other greens fees, initiation fees and dues, the number of golf cars and related fees, and range ball rates.

• **Staff:** e.g., the number of full and part-time employees defined by job description.

• **Revenues:** the gross revenues broken out in terms of dues/fees, merchandise sales, lessons, club repair, food/beverage, etc.

• **Expenses:** the numbers broken down in terms of maintenance, major facility, pro shop, cart rental, range, food and beverage and general/administrative.

• **Capital Expenditures:** the amount spent from 1988-1990 on golf cars, maintenance equipment, cart path construction and nine other spending areas.

The new report will replace two survey reports (one on operations and the other on maintenance) the National Golf Foundation produced in 1985 and 1986.



Paul Fullmer

## Fullmer earns Ross Award

CHICAGO — Paul Fullmer, who has guided development of the American Society of Golf Course Architects (ASGCA) for the past 22 years as executive secretary, has been named the 1992 winner of the organization's Donald Ross Award.

"Paul has been at the helm during one of the most dynamic growth periods in the history of golf course architecture in this country," President Tom Clark said. "His steady hand has enabled the society and its members to achieve recognition throughout the world as the premier design source."

"The society has experienced rapid growth during the past decade and has become a high-profile member of the Allied Associations of Golf, and we wanted to recognize his consistent counsel and pro-active programs by awarding Paul the Ross Award — the highest honor we can bestow."

The ASGCA presents the Ross Award annually to someone who has made a significant contribution to golf, specifically golf course architecture.

Fullmer grew up as a Chicago sports fan and began covering his high school team for the local newspaper his junior year. At Notre Dame, he was both sports and managing editor of the school publication.

When he graduated in 1955 he became a sports reporter at the Aurora Beacon-News in Aurora, Ill. In 1957 he joined Selz, Seabolt & Associates, a Chicago-based public relations firm, and became ASGCA executive secretary in 1970.

His golf connection developed through his wife, Sandra, and her father, Percy Clifford, who was an ASGCA Fellow and one of the leading golf course architects in Mexico.

"Quite simply, I am deeply honored by the Ross Award," Fullmer said. "I am well aware that staff people seldom are recognized with their organization's highest honor, and this recognition certainly is one of the highlights of my life, especially because it comes from such great friends."

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Trident	5.4
Pacer	5.3
Mustang	5.3
Apache	5.2
Tempo	5.1
KY-31	5.0
Falcon	5.0
Hounddog	5.0
Adventure	4.9
Jaguar	4.9
Bonanza	4.8
Olympic	4.8
Maverick	4.7
Willamette	4.6
Rebel	4.5
Clemfine	4.4
Brookston	4.4
Johnstone	4.0
Kenhy	3.4

Data from USDA National Turfgrass Evaluation Program

### Drought Tolerance (Dormancy) Ratings of Tall Fescue Cultivars

Dormancy Ratings 1-9		9=No Dormancy	
Name	Mean	Name	Mean
Arid	7.7	Chesapeake	5.7
Olympic	7.7	Tempo	5.3
Apache	7.3	Hounddog	5.0
Jaguar	7.3	Pacer	5.0
Finelawn I	6.3	Johnstone	5.0
Mustang	6.3	Kenhy	5.0
Rebel	6.3	Maverick	5.0
Bonanza	6.0	Brookston	4.3
KY-31	6.0	Clemfine	4.3
Adventure	5.7	Trident	3.7
Falcon	5.7	Willamette	3.3
Finelawn 5GL	5.7		

Data from USDA National Turfgrass Evaluation Program

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Brown Patch Ratings 1-9		9=No Disease	
Name	Mean	Name	Mean
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Adventure	6.2		
Jaguar	6.1		
Rebel	6.0		
Pacer	5.9		
Maverick	5.8		
Falcon	5.8		
Clemfine	5.7		
Apache	5.6		
Tempo	5.6		
Olympic	5.6		
Hounddog	5.6		
Chesapeake	5.5		
Finelawn 5GL	5.5		
KY-31	5.5		
Mustang	5.5		
Bonanza	5.5		
Trident	5.5		
Johnstone	5.5		
Finelawn I	5.3		
Kenhy	5.0		
Willamette	4.9		
Brookston	4.3		

Data from USDA National Turfgrass Evaluation Program

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CIRCLE #103

# Water rates on rise in Wichita; courses may pay double

By Hal Phillips

WICHITA, Kan. — Area golf courses will pay double for water following the city's passage of a new water rate structure. Golf course managers feel particularly hard hit by the measure, but their pleas have gone unheeded.

After meeting with a dozen disgruntled course representatives, the Wichita City Council is mulling a plan that would phase in the higher rates for golf courses, giving them time to phase in grasses that require less water.

But the council has yet to move on the

## Area representatives fighting controversial rate structure

subject, and course managers are preparing for the worst.

"We can't take this kind of hit and stay in business," John Wright told the *Wichita Eagle*. Wright manages the Reflection Ridge golf course. "It's going to bankrupt some of us."

The City Council passed the new water rate structure in January. It's designed to reward customers who use less water and penalize those who use more. Because the new pay scale is based on volume, golf course

managers feel singled out.

Higher interim rates go into effect May 1, and even higher rates are scheduled to take hold Jan. 1, 1993.

The average golf course in Wichita uses about 58 million gallons a year and pays about \$58,000. Under the new rates, that same course would pay about \$129,000 a year for water — an increase of 129 percent.

Most area courses feature rye and bluegrass, which are easy to maintain but require a lot of water. More economical choices would

include Bermuda or zoysia, but to plant new grass would "cost anywhere from \$500,000 to \$1 million per course including labor, excavating, plant material and water use rates," said Wright.

Bill Oliver, greens chairman for Wichita Country Club, says the clubs are willing to cooperate on conservation, but "most courses were told that it would be at least five years before any substantial (rate) increases," he told the *Eagle*.

Oliver believes players will see more expensive greens fees when the higher rates go into effect in January. "You've got to make up for that cost somewhere," he said.

## Voters to decide fate of Pleasure Island project

PORT ARTHUR, Texas — The controversial proposal to build an 18-hole golf course on Pleasure Island will be validated or shot down at the polls.

A small group of residents seeking a chance to vote on the proposal has mustered enough support to force city officials to place the project on the May 2 ballot.

The question is not so much opposition to the proposed course site. It's more a question of how to pay for it. The City Council voted last December to release \$8.95 million in certificates of obligation to build the course.

Petitioners want a citywide vote on whether to release the \$8.95 million.

City officials believe revenues from the course and lot sales on the island will pay back the certificates.

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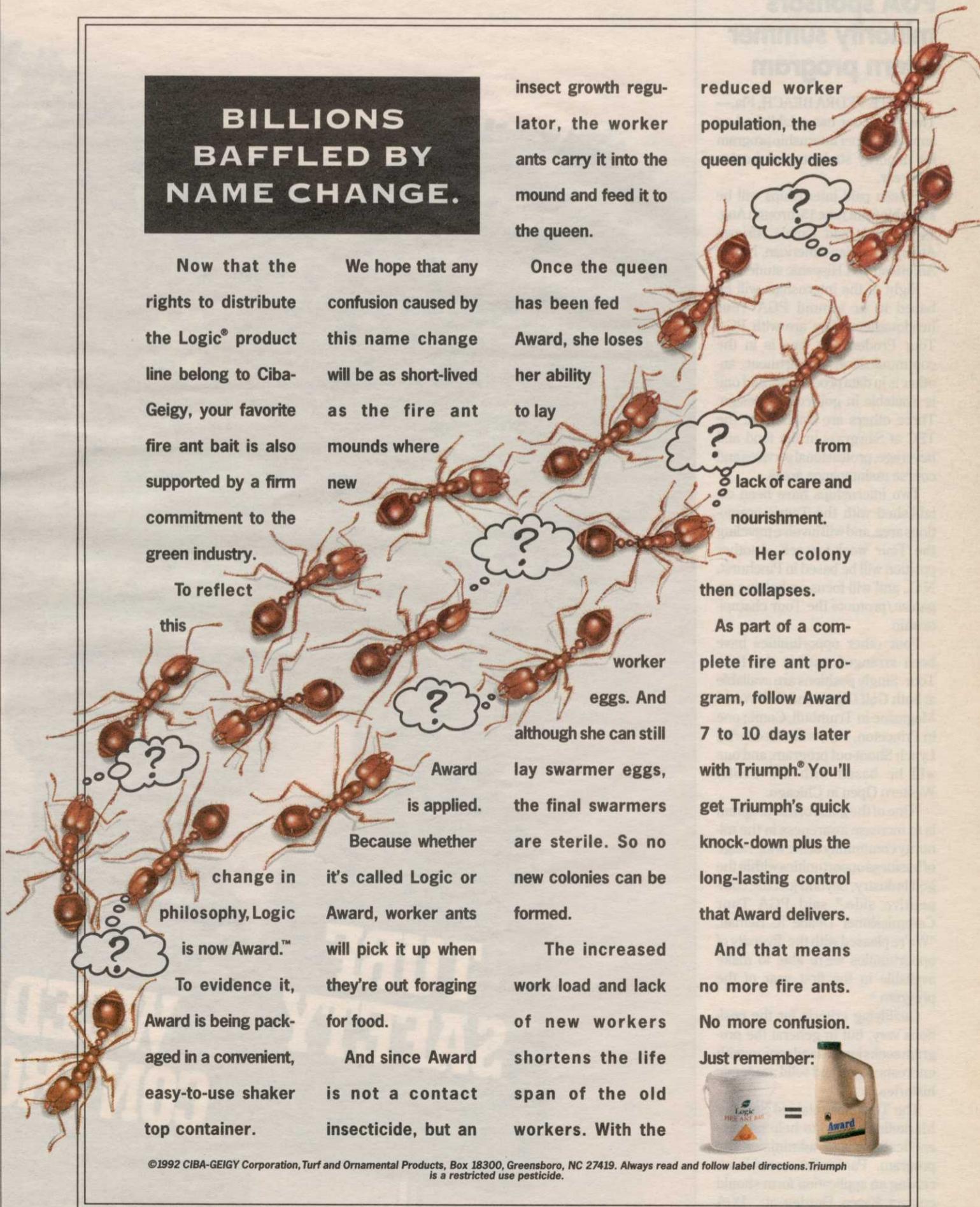
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# Tour 18 recreates selection of best holes in the nation

HOUSTON — Orville and Wilbur Wright never dreamed their flying machines would make it possible to reconstruct No. 6 at Bay Hill in a Texas oil field. But that's just the case outside Houston, where a group of businessmen is using aerial photos and computer technology to recreate 18 of the nation's top golf holes.

The course in question — and currently under construction — goes by the name Tour 18, and it's located 1-1/2 miles east of U.S. 59 on top of an old oil field purchased

from Texaco. Arnold Bruns, former greens superintendent at Pinehurst, has been hired as groundskeeper.

Recreational Development Consultants of Maryland hit upon the fly-by technology out of necessity because most courses and architects keep their blueprints under lock and key. In addition, most courses do not allow land surveys.

The technology involves photographing a particular hole, then feeding it into a computer. The computer converts the photo into a three-

dimensional color image, showing the exact dimensions of the hole and its topographical changes.

The three-D images are so accurately detailed a construction engineer driving a bulldozer can look at the photograph and know the exact dimensions of greens and bunkers.

Low-flying planes are not allowed over Pebble Beach, Augusta National and Colonial, so the Houston group bought engineering plans from the original builders and construction companies involved in the projects.

The only thing builders won't recreate are bentgrass greens. Texas heat and heavy traffic dictated the use of Tiff Dwarf Bermuda.

The group started with a list of 300-plus holes and narrowed it to the following 18:

- No. 1: 18 at Harbour Town
- No. 2: 6 at Bay Hill
- No. 3: 3 at Pinehurst No. 2
- No. 4: 18 at Inverness
- No. 5: 11 at Augusta National
- No. 6: 12 at Augusta National
- No. 7: 13 at Augusta National
- No. 8: 4 at La Costa

No. 9: 17 at TPC-Sawgrass

No. 10: 10 at Desert Inn

No. 11: 6 at Disney World

No. 12: 3 at Colonial

No. 13: 14 at Pebble Beach

No. 14: 3 at Oakmont

No. 15: 10 at the Olympic Club

No. 16: 11 at Merion

No. 17: 8 at Oak Tree

No. 18: 18 at Doral

RDC has copyrighted its name and plans to build at least 10 similar tracks all over the country, each with different holes depending on the available terrain.

## PGA sponsors minority summer intern program

PONTE VEDRA BEACH, Fla.— The PGA Tour has established an annual summer internship program for minority students that begins this year.

Fifteen paid internships will be available from June 15 through Aug. 14 for male and female African-American, Asian-American, Native American and Hispanic students.

Eight of the internships will be based in or around PGA Tour headquarters. Two are with PGA Tour Productions, one is in the communications department, another is in data processing, and one is available in golf course design. Three others are available at the TPC at Sawgrass in the food and beverage, professional services and course maintenance areas.

Two internships have been established with the Tour's promotions area, and will involve traveling the Tour week-to-week. Another position will be based in Pinehurst, N.C., and will focus on helping organize/promote the Tour championship.

Four other opportunities have been arranged outside the PGA Tour. Single positions are available at both Golf Digest and Golf World Magazine in Trumbull, Conn.; one in Princeton, N.J., with the Merrill Lynch Shoot-out program; and one will be based with the Centel Western Open in Chicago.

"One of the goals of this program is to increase awareness in the minority community of the wide range of business opportunities within the golf industry, beyond just the competitive side," said PGA Tour Commissioner Deane R. Beman. "We're pleased with the diversity of opportunities we're able to make available in the first year of the program."

Qualifying criteria for the positions vary, but in general the program seeks juniors and seniors with interests in golf and solid academic histories.

The Tour has retained Stringer Marketing Group to help process applications and administer the program. Parties interested in receiving an application form should contact Karen Durden at: PGA Tour, 112 TPC Blvd., Ponte Vedra, Fla.



# EPA strategy detailed in report from Florida Geographic Task Force

The U.S. Environmental Protection Agency has announced the results of a task force review in the south Florida area. The review provided the underpinning for a \$1.1-million south Florida initiative proposed in President Bush's Fiscal Year 1993 EPA budget.

The task force study examined major environmental issues in the area and recommended a series of measures and strategies to protect and restore the environment of south Florida.

The comprehensive strategy is focused on addressing mercury contamination, improving the protection of native habitat and wildlife diversity, reducing surface water and ground water degradation, improving air quality, lowering toxic emissions, improving environmental monitoring using the Agency's Environmental Monitoring and Assessment Program, and improving coordination of multi-media and inter-agency activities.

The comprehensive strategy will

include an increase in the agency's civil and criminal enforcement of federal environmental statutes and regulations affecting those areas where violations are most frequent.

EPA already has begun to address concerns in two key areas. The Agency has increased participation in mercury research and has begun planning for an integrated monitoring system based on the Environmental Monitoring and Assessment Program model. The EPA's Office of Research and

Development, at the request of Region IV, has provided \$400,000 for planning and monitoring assistance for southern Florida. Additional funds will be sought in 1993 to support the Everglades-Wetlands Study, which will investigate the causes of mercury contamination in the Everglades.

"The challenge we face here in Florida is to restore the productivity of our great natural systems and to seek a reconciliation between the health of natural systems, on one

hand, and growth and prosperity on the other," said EPA Administrator William K. Reilly. "We will do our part. I am confident that the strategies developed here will serve to protect and restore the environments of south Florida."

"We can preserve the resources and environment of southern Florida if we can effectively coordinate our efforts in planning, implementation and enforcement," said Greer C. Tidwell, EPA regional administrator. "EPA is willing to do everything it is authorized to do in order to accomplish this goal and hopes to work in a new partnership with other federal, state, and local agencies to achieve our common objective."

South Florida consists of large areas of urban and agricultural development existing side-by-side with environmentally sensitive wetlands and other natural resources. In south Florida, there are more than 2 million acres of federally managed lands, including 1.4 million acres in the Big Cypress National Preserve. The area also is home to an estimated 6 million people.

The Everglades region is internationally recognized as a unique ecosystem that has been extensively altered by human development. The current Everglades area is estimated to be only 64 percent of its historic size because of agricultural drainage and urban conversions. The watershed which supports it has been reduced 50 percent by drainage diversions.

There are numerous planning and regulatory agencies at all levels of government, but there needs to be better communication and management coordination in the area, the study found.

The South Florida Geographic Study identified several critical environmental issues and management options to address them:

- More than 1 million acres of the Everglades are subject to a health advisory because of mercury contaminated fish.

- Mercury contamination has resulted in contamination to wildlife, particularly the Florida panther and other endangered species.

- Urban and agricultural land conversion activities are resulting in the loss of habitat critical for endangered species and contributing to a decline in biological diversity.

- According to state and University of Florida studies, an estimated 32 percent of the wetlands in south Florida have been lost to drainage and land conversions. This loss is continuing at a high rate.

The Task Force also examined the regulatory programs of federal, state, regional and local agencies that have jurisdiction in south Florida.

Copies of the draft report may be obtained by contacting Heinz Mueller, EPA Region IV, 345 Courtland St., N.E. Atlanta, Ga. 30365, 404-347-3776.

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\* Refer to label for stage of growth and species controlled.



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## Biotechnology rules in making

The U.S. Environmental Protection Agency will soon unveil a "stable set of rules" for areas it administers in the area of biotechnology.

The EPA said biotechnology presents "enormous opportunities to improve lives and environment. Among its potential advantages are new ways to clean up the environment, develop pest-resistant plants, and improve food production with less use of synthetic chemicals.

"The industry will need a stable set of rules to make the necessary investments."

## Coeur D'Alene tax dispute lands in court

BOISE — A tax dispute involving The Coeur D'Alene Resort Golf Course has landed in court after course owners balked at the state's 1991 assessment.

The problem stems from last year's valuation of the 135-acre golf course, which the state originally assessed at \$12.2 million. The owners — Hagadone Hospitality Co. — believe it's worth just \$3.17 million.

Hagadone turned to the state Board of Tax Appeals, which ruled Hagadone should pay taxes on property worth \$11,872,56, according to Eileen Peterson, executive assistant to the Board of Tax

Appeals.

But the owners said "no" and brought the matter to District Court of Appeals, where it now resides.

According to Peterson, the case was complicated by two factors. First, the golf course is comprised of two parcels, each assessed separately. Second, the course boasts the world's only floating green, on the 14th hole atop Lake Coeur d'Alene. How to assess a floating green is the subject of some conjecture, she said.

The two sides are miles apart. For example, Hagadone is looking for a per-hole assessment at \$176,000, while the state values each hole at \$662,464.

## Dionne honored for long service in seed industry

Former Jacklin Seed Co. plant manager Ted Dionne has been awarded honorary lifetime memberships by the Washington-North Idaho Seed Association and the Idaho-Eastern Oregon Seed Association.

Dionne and his wife Doramae have been active in the Washington-North Idaho association for 25 years. The honorary lifetime membership, only the fifth to be given since 1952, was awarded jointly to the Dionnes for their teamwork and involvement with the association. Ted Dionne views their participation as a partnership, and noted this is the first time the award has been given to a woman.

Dionne, who retired last June after more than 35 years with Jacklin Seed Co., has been an active member in national and international seed trade associations. Dionne is past president of both the Washington-North Idaho, and Idaho-Eastern Oregon seed associations, and was previously awarded an honorary life membership to the Spokane County Crop Improvement Association.

## O'Brien named to PGA panel

PALM BEACH GARDENS, Fla. — Larry O'Brien, vice president of public relations at Golden Bear International, has been appointed to the PGA of America's Advisory Committee.

A recipient of several awards in the United States and Canada for his contributions in the fields of communications and public relations, O'Brien was at one time an award-winning newspaperman and television commentator in Canada. He moved to North Palm Beach in 1970 and was associated with several U.S. Tour prestigious tournaments while still serving as coordinator for the Canadian Open.

## Golf House expo features Jones

FAR HILLS, N.J. — An oil portrait of golf architect Robert Trent Jones Sr. by renowned British artist Arthur Weaver was recently unveiled during the annual meeting of the United States Golf Association in Palm Beach, Fla.

"It was an occasion I will always remember," Jones said. "I was simply delighted with Arthur Weaver's work and am honored the USGA will display it."

The portrait will hang at the USGA's Museum, Golf House. Jones is the 17th golf dignitary — and the first architect — honored with a portrait at Golf House, joining other golf personalities such as Bob Jones, Francis Ouimet, Ben Hogan, Byron Nelson, Gene Sarazen, and Glenna Collett Vare.

## With All The Abuse Your Turf Takes, Who Needs Root Pruning?



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CIRCLE #106

GOLF COURSE NEWS

## Lely awarded control of East Naples courses

EAST NAPLES, Fla. — A Collier County judge has awarded Lely Development Corp. full control of the two golf courses it has opened at Lely Resort, a 2,900-acre project underway here.

Judge Thomas Trettis ruled that Donald Breckenridge and his St. Louis-based resort development company had failed to make lease and security payments to Lely when they came due last summer.

Breckenridge and his Naples attorney, Cathy Reiman, said they would appeal the decision.

Trettis' action came following an eviction suit Lely brought against Breckenridge last August. Lely sought to have the developer stripped of control at the Robert Trent Jones-designed Lely Flamingo Island course and Gary Player-designed Lely Classic track.

Breckenridge argued that Lely has tried to prevent his company from developing a 350-room hotel complex at the development.

## Parched Palo Alto municipal to get major makeover

PALO ALTO, Calif. — A parched Palo Alto Municipal Golf Course will likely receive \$6 million in renovations following six years of drought-induced decay.

Although it has yet to give its formal approval, the City Council has expressed support for the 36-year-old course, one of the Bay Area's most heavily played tracks.

The course, which sits below sea level, was built on a former marshland where accumulated salt and other minerals have made growing grass almost impossible in some areas. Under the plan, which has a target completion date of 1996, all playing areas would be rebuilt with a 12-inch layer of sand underneath for better drainage.

The proposal also calls for installation of a \$300,000 pipeline to irrigate the course with treated wastewater from a nearby sewage treatment plant. This process could save the city \$250,000 in water costs.

The renovation would be financed by bonds to be paid for by an increase in greens fees, savings from using reclaimed water, and increased course revenues that currently average \$206,000 annually.

## Dubuque voters reject 2nd course

DUBUQUE, Iowa — Dubuque voters recently rejected a \$5 million bond issue to build a second municipal golf course.

The proposal to build received 57 percent of the vote (3,775 to 2,895), but Iowa law requires a 60-percent margin on these issues.

## Cohen to chair NGWA Ground Water Protection Committee

DUBLIN, Ohio — Stuart Cohen of Environmental & Turf Services in Wheaton has been named chairman of the Ground Water Protection and Management Committee of the National Ground Water Association.

President Ron Hiddleston commended Cohen's leadership and commitment to his profession and his association.

The Ground Water Protection and Management Committee guides the NGWA in the establishment of policies toward the protection of our nation's ground water.

The NGWA is a not-for-profit organization representing more than 24,000 ground water scientists and engineers, ground water contractors, manufacturers, and suppliers in 70 nations.

## New pesticide regulations proposed for Wisconsin

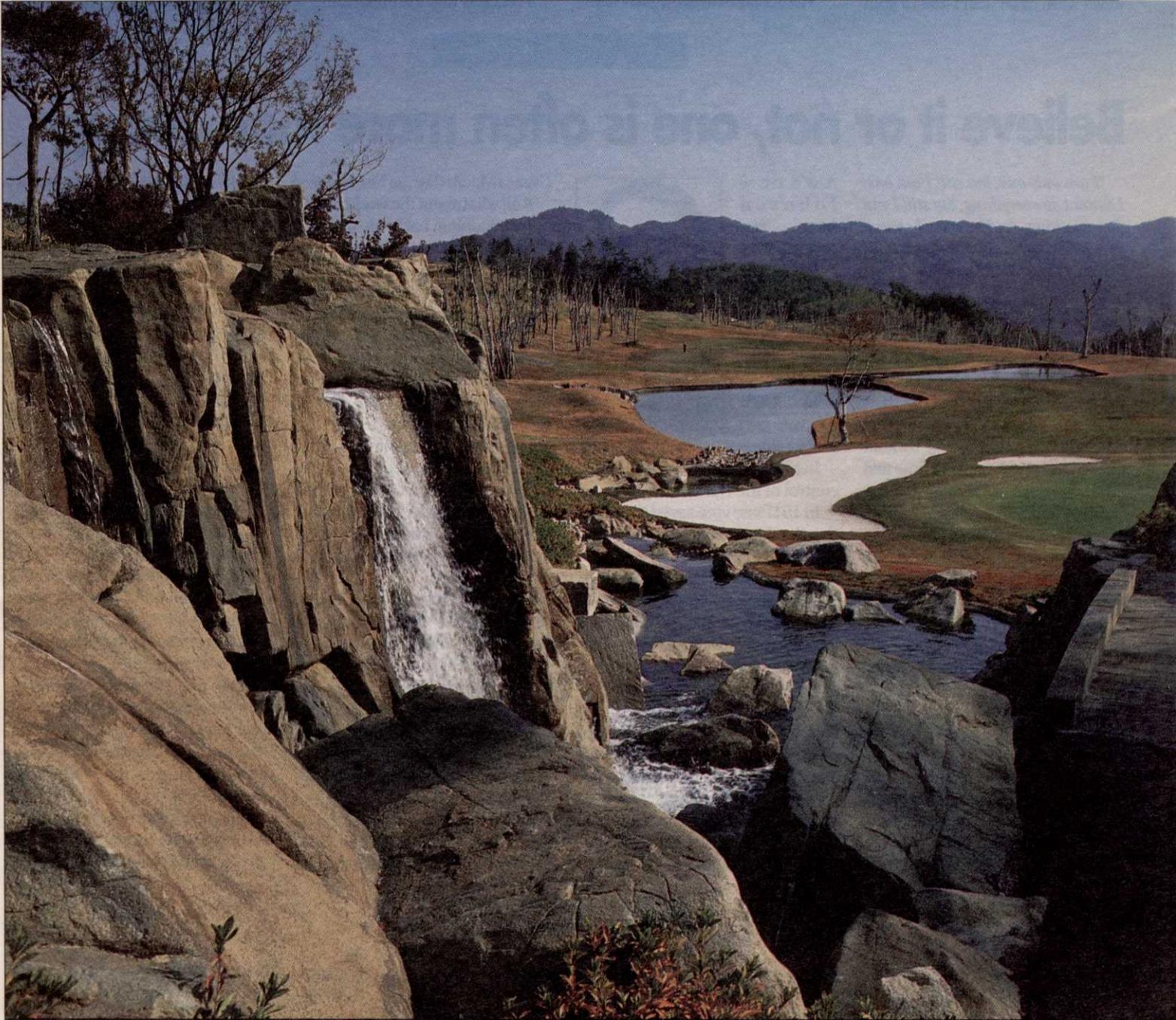
MADISON, Wis. — Wisconsin would establish new regulations on the information released about pesticides applied to golf courses under a proposal drafted by the state Department of Agriculture, Trade and Consumer Protection.

The proposal, developed by an advisory committee of legislators, pesticide applicators and environmentalists, is designed to provide citizens more information about the commercial application of pesticides

in their neighborhoods.

According to a DATCP analysis, the proposal would not restrict the volume or kind of pesticides used, nor would it regulate where the pesticides are applied. Rather it would require firms to post notices on properties after application, specifying the type of pesticide.

The bill (AB468) recently passed out of the Wisconsin State Assembly and moved on to the Senate's Agricultural Committee.



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CIRCLE #107

# Golf Course News expands editorial staff

This column will be the last for awhile so that Editor Hal Phillips can have an opportunity to offer his thoughts on the industry to you each month.

Hal joined our editorial department recently. You have become familiar with Managing Editor Mark Leslie and Associate Editor Peter Blais, and they will continue to inform you with news of the industry.

The continued growth of *Golf Course News* has required our adding to the editorial staff. A good advertising client responded to this news with, "You can't add to your

staff. This is the '90s." With all the cutbacks, we're quite fortunate to be in a position to add staff. The beneficiary will be our

readers as we will strive to report more news and go that extra mile to get accurate information on industry trends.

Hal's baptism by fire was spending



Charles von Brecht  
publisher

the weekend in New Orleans at the recent GCSAA show. He had an opportunity to hear the positive comments from readers and advertising clients, further assuring him that he made the right decision.

Hal's background includes writing and editing for various daily newspapers. His golf background includes collegiate golf, with a year on the University of London team, which played a few rounds on world-famous British and Scottish courses. He will be a valuable asset to the growing *Golf Course News* team.

I recently had the opportunity to

walk the totally reconstructed Stouffer Vinor Resort course (formerly Sunset Country Club) with architect Ron Garl. Although not yet planted, the course has the potential to be among the top resort courses in Florida. Opening day is planned in August.

Again, I want to thank all our readers who have read and responded to this column over the past three years. I may, from time to time, get in my nickel's worth. In the meantime, enjoy reading *Golf Course News* and look for Hal Phillips' column here next month.

## EDITOR'S COMMENTARY

# Believe it or not, one is often more than enough

*"I am only one, but still I am one. I cannot do everything, but still I can do something. And because I cannot do everything, I will not refuse to do the something that I can do."*

— Edward Everett Hale

By Mark Leslie

There are several billion humans on Earth and people tend to look at the numbers in their country, their state, or even their town and feel that whatever they do is without effect. Useless. A waste of time and effort. Forget even trying!

Don't be deceived. It just isn't so. There are countless instances where one vote made an extraordinary difference — even turned the tide of history.

In 1645 one vote gave Oliver Cromwell control of England.

In 1649 one vote caused Charles I of England to be executed.

In 1776 one vote gave America the English language instead of German.

In 1836 one vote elected Marcus Morton governor of Massachusetts.

In 1845 one vote brought Texas into the Union.

In 1868 one vote saved President

Andrew Johnson from impeachment.

In 1875 one vote changed France from a monarchy to a republic.

In 1876 one vote gave Rutherford B. Hayes the presidency.

In 1923 one vote gave Adolf Hitler control of the Nazi Party.

In 1941 one vote saved the Selective Service System just 12 weeks before Pearl Harbor.

Behind each of those "one votes" was one person. What if that person had decided to stay home on the day of decision because "what's-one-lously-vote-anyhow?"

Besides votes, what about actions? What if Leonardo da Vinci had decided at a young age that his presence in the world was insignificant? In the world of art who can measure the significance of a de Vinci, a Michelangelo, a Disney? In the world of the military who can measure the importance of a Lee, a



Mark Leslie  
managing editor

Grant MacArthur, an Eisenhower? And what about the world of golf?

Just looking back on the very recent past proves that researchers, teachers, course architects, even media types have made a lasting difference in the golf industry.

After hearing that Eliot Roberts is retiring from The Lawn Institute, it occurred to me how important that one person can be. Roberts led major university agronomy programs in the country before taking over The Lawn Institute 10 years ago to pull together research and development that is being done worldwide. What if he had decided that was too big a chore?

Other examples? Check the recently "retired" ranks Roberts is joining. From universities there are Joseph Troll from the University of Massachusetts, Richard Skogley of the University of Rhode Island, Joe Duich and Don Waddington from Penn State, Henry Indyk from Rutgers, Bob Kneebone from the University of Arizona, Roy Goss from Washington State University, Ken Payne from Michigan State University, Arden Baltensberger

and Glen Burton from New Mexico State.

Then, there is Jack Murray, who has helped in major advances in sod production and sports turf research during his former days at the USDA in Beltsville, Md., and today continues his research. And in the business world, Jim Watson at Toro and Dr. Bob Miller of ChemLawn.

Sherwood Moore, Jim Brandt and other recently retired superintendents have had a profound impact on golf.

Where would the golf industry be without these people — individually or collectively?

So, I say to the younger generation: Do not count yourself short. Do not undersell the contributions you can make to the industry, or society in general.

You are the only biological mother or father your children will ever have. You are a deacon of that church, a contributor to that charity, a member of the staff of that organization.

Ours is a history of ones. And we are in a small enough industry that apathy could absolutely kill it.

## GUEST COMMENTARY

# Add one more acronym to list — for the gophers

By Bob Spiwak

Amidst the alphabet soup of golf organizations, societies, tours, writers and governing bodies, there is one of whose existence you are probably unaware. It's the American society of golf course gophers. a.s.g.c.g. If you are wondering about the lower case, the gophers feel it distinguishes them from humans and their arrogance.

We were able to obtain an exclusive interview with Media Rep gopher at the society's headquarters in a deep hole under a box elder tree at the Cold Sore Country Club in Cut Bank, Montana. (Headquarters were once at Far Hills, N.J., but the Garden State atmosphere drove the society to cleaner air.) Mr. Gopher allowed us to break the story because at our own

golf course we live in peaceful co-existence with the furry creatures; our philosophy being that anyone stupid

enough to pay good money to aggravate him or herself playing golf deserves an occasional mound or hole on the putting surface.

According to greg, gophers were once, as were the greenskeepers, rather independent agents, each keeping to his own turf and out of touch with his counterparts elsewhere. With the advent of GCSAA, the gophers decided that they, also,



Bob Spiwak

needed to share information.

What kind of information? Gopher ticked off a list on his paws: seminars on better soil penetration, efficient root-pruning, dealing with pesticides, trap avoidance, subterranean stimp metering (of water runoff) and, surprisingly, perpetuation and proliferation of poa annua.

I asked what poa had to do with gophers, aside from a possible meal. Greg smiled. "Hell, we wouldn't eat that stuff. By keeping the supers busy fighting it, we lessen their efforts combatting us." He tilted his whiskers in an attitude of smug satisfaction. "Divide and conquer, you know?" he smirked.

Since the gophers have organized, he continued, they were able to effect mass purchasing practices

and get the poa at wholesale in large quantities.

Asked how the creatures were so adept at springing traps, he said that it was not always thus. Again, through organization, members were educated in the techniques of trap-tripping. The latest method was borrowed, he said, from the Teen Aged Mutant Ninja Turtles. "A little armor here, a sword for trigger tripping, and voila!, no problema. Well, we do get our share of lacerations and amputations, but each golf course has an infirmary, and we have trained E.M.T. personnel. While he acknowledged that the infirmaries were usually at the same site on every golf course, he would not divulge the location.

Continued on page 11

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## Media, Feldman should get the story straight on pesticide use, versus salt and aspirin

To the editor:

In response to the article by Peter Blais in the March issue of *Golf Course News*, which states that Jay Feldman feels golf courses use too much pesticide as compared to agricultural users.

Did Mr. Feldman compare the land used for agriculture to that used for golf courses? I believe more land is used for agriculture than for golf courses in this country.

Mr. Feldman said golf courses use 18 pounds per acre as compared to 2.3 pounds for soybean. What about corn, wheat, vegetable crops, and let us not forget the fruit industry that uses its share of pesticides.

But, of course, no one wants to say anything about John Doe who puts pesticides on his lawn without

reading the label or having a license to do so.

Secondly, the sarcastic remark made by Mr. Stossel about "left to our own devices, superintendents would poison our customers and kill the town" is just another report of someone jumping on the bandwagon with sensationalistic reporting.

Mr. Stossel fails to report to the public some facts about Lt. Prior as stated in *The Florida Green*, 1987 issue, such as, "Lt. Prior's involvement in top-secret biological warfare and the possibilities of its contribution to his death."

(I have read that Lt. Prior died of a rare skin disease rather than chemical poisoning. However, I can not quote where I read that.)

Also, why did the Navy conduct a closed-door autopsy and investi-

gation into his death? "No Daconil 2787 was found in any of Lt. Prior's tissue or body fluid — just on his shoes, clubs and golf balls."

Mr. Stossel and Mr. Feldman fail to recognize that golf course superintendents and crews spend two to three times as many hours on the golf course as do golfers.

We certainly do not want to poison ourselves or anyone else. Superintendents and their spray technicians are licensed with their respective states before they can dispense a pesticide.

A few more facts as stated in *The Florida Green*, spring 1987, pages 51-52:

- Daconil 2787, also called Bravo, is used on nearly all vegetables and fruits.

- Considerably more people suffer from allergies to seafood, milk, pollen and grass itself, than they do to Daconil 2787 on golf balls.

- In laboratory tests, it takes three times as much Daconil 2787 than table salt to kill test animals and 13 times more than aspirin.

- One alleged death due to Daconil 2787 is negligible compared to golf course deaths that occur due to insect attacks, lightning, heat stroke, heart attacks, and even golfers being struck by balls.

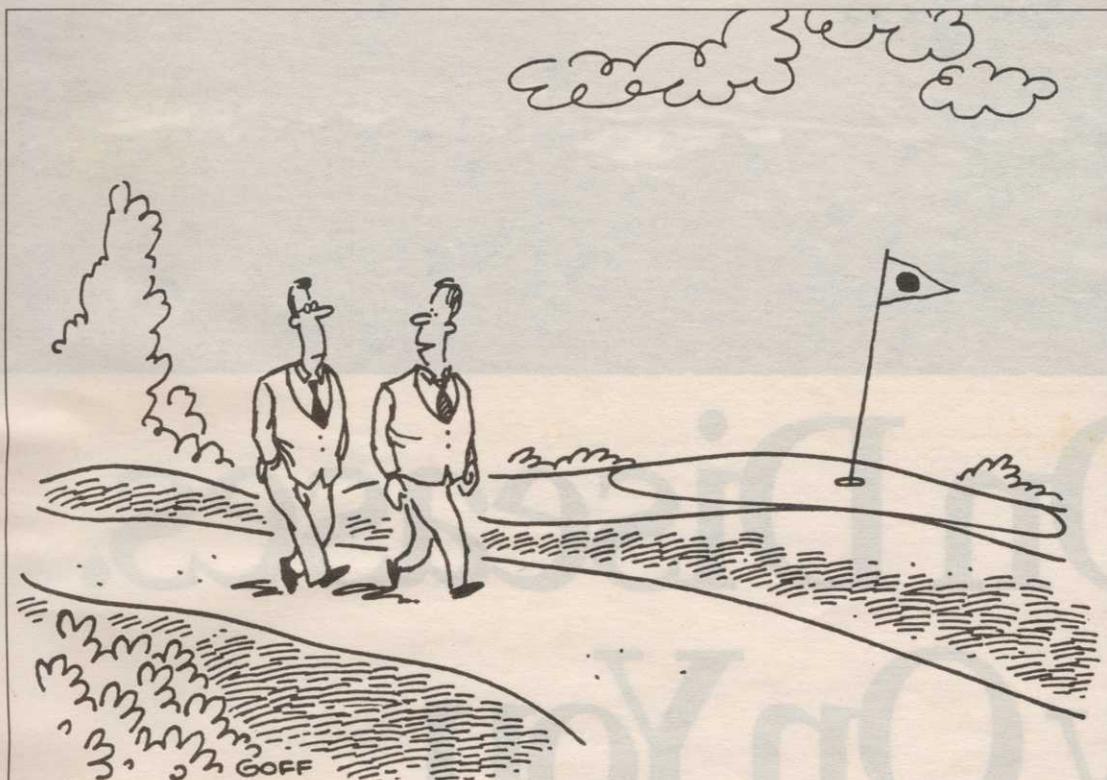
It seems that the news media is trying to compare golf courses to hazardous waste dumps without foundation!

Dennis C. Cassidy  
Superintendent  
White River Golf Course  
Rochester, Vt.

*Editor's note: In fairness to John Stossel of ABC Television, tongue was firmly planted in cheek when he said the general concern surrounding golf courses and pesticides seems to boil down to whether "left to your own devices, you (superintendents) would poison your customers and kill the town."*

### Letters...

Letters to the editor are welcome. Address them to: Letters, *Golf Course News*, P.O. Box 997, Yarmouth, ME 04096



"THE FLAGS WERE THE ONLY CONCESSION WE HAD TO MAKE TO OBTAIN OUR FINANCING."

## Add an acronym for gopher society

Continued from page 10

What about bombs and smoke devices? "Those," he grinned, "are really a gas. It's a kick to watch a grown man on his hands and knees lighting a fat stick, jam it into a hole and then madly cover the hole with soil. Then they sniff—without fail, they sniff the air." He went on to explain that throughout the labyrinth of gopher colonies are circulating fans. "When smoke comes, we turn on the fans and direct it into the club bar through the plumbing. There's so much cigar smoke they never know the difference." He grinned a toothy grin.

We got around to the big question. Why? Why do gophers adamantly choose golf courses on which to ply their trade. Greg was

thoughtful for a moment, then said, "I guess it has to be the scenery. Golf courses are such beautiful places and the superintendents do such a fine job keeping them that way."

I queried with, "Well, if they make life so good for you, don't you feel any guilt about making life miserable for them?"

"Not really," he answered. "We provide employment for many people." He looked embarrassed, then added, "Ok. We could go easy on the supers, but Man, those Greens committees. If you could be in our paws, listening to those guys telling the supers how to maintain a course, complaining about the greens and frequently threatening the greenskeepers' jobs, you'd want to

retaliate."

Failing to find any logic in his argument, I changed the subject. "I guess there have been gophers as long as there have been golfers."

"Longer," he said. "If you consult your Bible, you'll find that God commanded Noah to build his ark of gopherwood."

I saw our time was about up. As Greg shrugged into his tiny parka, I asked the final question.

"Why not enjoy the golf course, but do your digging someplace adjacent to it? I mean, you continually face danger, frustration, humiliation and get bad-tempered. Why do you stay on the golf course?"

He shrugged his furry shoulders. "Why do you play golf?" he countered.



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CIRCLE #109

Briefs



**GCSAA JOINS PESTICIDE COALITION**

LAWRENCE, Kan. — The Golf Course Superintendents Association of America has joined the Coalition for Sensible Pesticide Policy.

The coalition exists to "secure sensible, uniform federal/state regulation of pesticides by passing pre-emptive legislation, while allowing local input into the federal/state regulatory process."

The GCSAA board of directors voted to join the coalition, President William R. Roberts saying it is crucial that legislators recognize the importance of limiting the authority of pesticide regulations to state and federal agencies.

"The complexities of pesticide regulations and the education process needed for compliance make it imperative that these regulations be consistent — at least on a state-level basis," Roberts said.

**NC TURFGRASS GROUP HONORS KOCHER**

PINEHURST, N.C. — Brad Kocher, director of golf course and grounds maintenance for Pinehurst Resort & Country Club, has been presented the Outstanding Service Award by the Turfgrass Council of North Carolina for his efforts in fund-raising and promoting turfgrass research.



Brad Kocher

Kocher, a graduate of Miami University and a certified golf course superintendent, has been instrumental in raising funds for the Turfgrass Foundation at North Carolina State University through the Council's annual Golf Day.

Under Kocher's chairmanship, Golf Day raised \$11,000 in 1990 and more than \$14,000 in 1991. Kocher is chairman again this year.

The purpose of Golf Day is to raise money for turfgrass research. Money is raised by asking golfers to make a \$1 per person contribution, sod producers, and the Department of Transportation.

**LAWN CARE MONTH IS UPON US**

According to the 1990 Census, April is when the lawn care season begins. People all across the country begin tending more than 25 million acres, using more than 61 million power mowers, and spending about a billion hours a year mowing the nation's lawns, parks and sports turf areas.

That's why the Florida Turf Grass Association and the Professional Lawn Care Association of America are supporting establishment of April as "National Lawn Care Month."

The FTGA and PLCAA hope to create an understanding of the environmental, as well as the recreational and aesthetic, benefits of maintaining healthy lawn grasses.

# IPMs know no limits, experts say

By Mark Leslie

**I**ntegrated Plant Management programs have nearly limitless potential, experts told superintendents at the Golf Course Superintendents Association's International Golf Course Conference and Show in New Orleans in February.

"An IPM is only limited by our imagination," said Tim Hiers, who moderated the session. "It's not cheap. It's not easy. The best way it will work is if superintendents share ideas."

The golf course manager at John's Island Club in Vero Beach, Fla., Hiers said: "Our IPM reaches from the ground to the sky and all around. We're looking for efficiency and safety, not only for our environment and our people, but for our image."

William Start of Turf Renovations, Inc. in Homer, N.Y., defined IPM as "a preventative program in its most comprehensive form. It balances all the inputs — cultural programs, changing technology and monitoring or scouting — to develop a comprehensive approach to all pest management."

Bruce Cadenelli, superintendent at Caves Valley Golf Course in Finksburg, Md., hailed IPMs for "forcing us back to the basics."

Good maintenance practice means using common sense, Cadenelli said, adding, "Sometimes we look at technology as our saving grace, rather than going back to the basics."

Start suggested superintendents establish the goal of maintaining the sparsest use of chemicals to maintain quality and economic viability.

Hiers listed several suggestions from his own course:

- Make sure all irrigation heads are visible

*'An IPM is only limited by our imagination. It's not cheap. It's not easy. The best way it will work is if superintendents share ideas.'*

— Tim Hiers

John's Island West



from the irrigation box. If so, you will be sure to check them to ensure you're not wasting water.

- If an area is not irrigated and it borders good healthy grass, in all probability it will be destructive to your equipment and is breeding insects. If you don't have irrigation you can't treat those areas.

- A cornerstone of IPMs is "a good irrigation system that allows you to water as you need to, not as you can. Grass watered properly is healthier. I take exception to one thing that's being advocated... I don't think we have to accept lesser conditions. I think we have the creativity, ambition and energy to overcome that."

- "If you have a weed, it's going to produce weed heads. Then you're going to have more weeds. Don't let anybody make you think that anything less than a healthy golf course is better for the environment. A healthy golf course is going to produce more oxygen, use more carbon dioxide... There's no substitute for a healthy golf course."

- Set goals. "If you don't, you'll just wander aimlessly."

Hiers' goal in 1991 on the West Golf Course was to have 100 non-irrigated days. "We had 101. Our goal for this year was to have four consecutive non-irrigated days and 102 total. We've already met the first goal."

- "When we use heavy pesticides we take into consideration that it may rain three inches immediately afterward. If you don't, you may kill fish and birds, and those are the ones that get headlines. When we apply a strong pesticide — which is very rarely — it doesn't do any good if you wait to water. By the time you get to the sixth head on that fairway, you may already have 15 birds there."

"When we apply a pesticide that's strong, we make sure we have the capability to water the area simultaneously with two revolutions of the heads to knock the material off the ground immediately. That does a lot of things. It protects wildlife. And, if you do have a rain, you've got it in the ground."

Continued on page 18

## Envirotron given \$350G for research

ORLANDO, Fla. — The Florida Turfgrass Foundation has received \$350,000 in matching funds from the state for its new Envirotron research facility.

The money, approved by the state of Florida's Capital Facilities Trust, along with \$350,000 raised by the foundation through private donations, will be used to build a laboratory dedicated to developing methods to preserve and improve the environment. The University of Florida campus in Gainesville will be the home of the Envirotron. Construction should begin later this year.

The Envirotron will become the state's first Environmental Research Unit. Top scientists will be retained to investigate and study the effects of pollutants in ground water; the effects of herbicide, fungicide and pesticide on the environment; the breeding of new grasses requiring less water; and the furthering of biological control methods for turfgrass pests.

Water conservation strategies and the use of recycled water for irrigation also will be studied.

"The initial funding of \$350,000 needed for the FTGA to qualify for fund matching was made possible by a unified funding campaign through the effort of FTGA members, Florida Golf Course Superintendents Association and many other private organizations, clubs and individuals," said Bob Yount, executive director of The Florida Turfgrass Association.

"This effort was possible only because of the desire of all those in Florida's Turf Industry to advance the industry but not sacrificing Florida's sensitive environment or natural resources."

"Accurate scientific data will now be available to all Floridians who want a 'Green Florida' but not at the expense or risk of damaging our environment."

## PGA, Pursell chip in

ORLANDO, Fla. — The Florida facilities of the PGA Tour and Pursell Industries have made a financial contribution to support funding efforts for the Envirotron Research Laboratory.

The contribution comes from the PGA Tour Florida facilities, including TPC at Sawgrass, TPC at Eagle Trace, TPC at Prestancia, TPC of Tampa Bay, Golf Club of Miami and Golf Club of Jacksonville.

Pursell Industries, involved in manufacturing turf-care products, also contributed to the facility to promote the ongoing research advancements of the industry.

"The PGA Tour's four Tournament Players Clubs and two public facilities within the state of Florida, along with Pursell Industries, are pleased to make this contribution to the Florida Turfgrass Research Foundation on behalf of their Envirotron project," said Mark Barrett, chief operating officer of PGA Tour Investments. "The PGA Tour has an established track record of golf course development tempered with ecological concern, and Pursell's concern for the environment is well known in its industry."

"We are hopeful the Florida Turfgrass Research Foundation and the new Envirotron laboratory will provide valuable information that will support our mutual efforts."

## Florida association co-sponsors turfgrass industry survey

ORLANDO, Fla. — The University of Florida and Florida Turfgrass Association and Research Foundation have pledged \$345,000 to a project touted as the most comprehensive turf industry survey in the nation. This study will complete the second half of a major proactive plan by the FTGA to develop a new awareness for the turfgrass industry.

A major element of the survey will be its measurement of the economic impact turfgrass plays in the state of Florida.

The University of Florida is contributing \$205,000 and FTGA is donating \$140,000.

Conducted by the University of Florida Food and Resource Economics Department, the survey results are anticipated to produce concrete data elevating turfgrass as a most valued resource in the state of Florida.

## Record number at show

NEW ORLEANS — A record 593 exhibitors plied their wares at the 1992 International Golf Course Conference and Show, held here in February.

More than 15,000 superintendents, turfgrass professionals and suppliers to the golf course industry attended the show, hosted by the GCSAA.

# Gary Hodge: Following good advice to reach goals

By Vern Putney

**O**n April 10, 1991, Gary Hodge landed the job of his dreams — superintendent of Valle Grande Golf Course, a 27-hole championship layout on the Santa Ana Pueblo Indian Reservation in Bernalillo, N.M.

A year later, he can't contain his excitement about the promise for his and the course's future. He's now grateful for job rejections because of his youth and lack of schooling. At 31, he's poised for progress.

Valle Grande is just north of Albuquerque and a short drive from Santa Fe. It was designed by Killian Design Group of Chicago.

Ken Killian and staff carved the Scottish-style course through the desert, leaving numerous native shrubs, grasses and one-seed junipers. Rolling hills, undulating greens, eight lakes, 90 sand bunkers and numerous grass bunkers challenge players. Four sets of tees span from 2,500 yards to 3,500 yards per nine.

A spectacular view of the Sandia Mountains features three mountain ranges on the horizon.

Hodge wasn't that charmed by scenic splendor when breaking into golf as a pre-teenager. As with many future superintendents, he leaned to the competitive side. Summers were spent at Colonial Park Country Club and Golf Course in his hometown of Clovis.

General duties around the pro shop for brother Randy, a Class A golf professional, included cart maintenance and driving range duties. It kindled interest in all phases of golf business operations.

Superintendents hadn't gained prominence and stature. Golf pros were in charge of agronomic decisions as well as running the pro shop and snack bar.

Hodge's first job was on a walk-behind greens mower. He next learned triplex mowing on tees, eventually moving up to gang mowing behind a tractor. Summer employment continued through junior high and high school.

Hodge found time to work on his golf

*'There are no guidelines or standards that hold true in a given situation. Nobody has all the answers. That's what makes this business so interesting.'*

— Gary Hodge

game. Success in high school tournaments led to a golf scholarship at Texas Wesleyan College in Forth Worth. After one year, he transferred to Western Texas College in Snyder.

An excellent program, advanced instruction, intriguing tournament schedule and community support provided the finances to travel across the country and play many courses.

Hodge was medalist in two college tournaments and named to the all-regional top 10.

Graduating with an associate's degree in business, he faced the big question mark. Golf was his future. Should he play, or work on a golf course?

His first job after college was at the University of New Mexico course, under the supervision of certified golf course superintendent Al Kline. After one year as greenkeeper, he became an assistant. This led to head superintendent aspirations.

Kline encouraged Hodge either to try for a head position or return to school and get a turf degree.

Surprisingly, he was interviewed for three superintendent jobs locally. All shied away from Hodge because of age and the essential diploma.

Hodge got the message. He enrolled at Colorado State University, and soon came under the guidance of Dr. Anthony Koski in the laboratory and at the research farm.

Two years later, in December 1989, Hodge graduated with a bachelor of science degree in landscape horticulture, with a turf concentration.

He then became assistant superintendent

SUPER FOCUS



Gary Hodge

at Cherry Hills Country Club in Denver, under Dan Pierson, CGCS. Skills acquired were quickly applied.

Fifteen months later, Lady Luck appeared, and Hodge was at Valle Grande.

Now came the challenge of growing in a golf course seeded in September and October 1990. Initial work on the greens began in April 1991. Many bare spots required filling. Sod was ordered, frequent seed and top-dressings applied. Fertilizer was spread over the entire course every three weeks.

Next came tees and fairways, which Hodge overseeded throughout the spring. While roughs were not a major concern, some overseeding was done on mounds. Fertilization seemed the key to obtaining quick results, a must because play was scheduled to begin in June.

This rigorous three-week schedule was maintained throughout the spring and continued until opening of play.

Heavy rains last summer caused drainage problems, but the grass thrived and very few dry spots appeared on the young turf. This took a major load off the irrigation system, maxed out each night before the rains.

Hodge believes preparing the course for daily

play is the most important aspect of his job. He meet each morning with his staff, emphasizing awareness of the dangers posed by golfers. Crew members had become accustomed to no play and no work interruptions.

Setting up the course daily consisted of mowing, changing cups and tees, raking bunkers and monitoring cart and foot traffic. Carts were restricted to cart paths the first two months. The 90-degree rule went into effect last September, permitting carts to cross fairways. Though aware of the wear damage the turf would incur, Hodge felt it was strong enough to recover. This would generate more revenue, speed play and reduce complaints.

Last fall produced a successful addition to Hodge's grow-in program. The weather was ideal, and the turf matured much faster than thought possible. Play was steady, and there were more tournaments because of continued course improvement.

Shelter houses were installed and drainage projects undertaken last winter. Bare root trees are being dug for spring planting to provide much-needed shade around the tee boxes.

Organization of personal record-keeping skills and organization of crews and duties for next year are Hodge priorities, as is certification.

Improving communication skills is a major concern. He noted, "This will enhance overall interest and improve individual expertise in the business."

"Climates, soils and turf adaptability differ throughout the country. Every golf course is different. There are no guidelines or standards that hold true in a given situation. Nobody has all the answers. That's what makes this business so interesting."

"I'm grateful to Kline for providing the insight to pursue a career with education in the golf business," said Hodge, "and I would like to thank Dr. Koski for the opportunity to work and learn from him."

As for Valle Grande, Hodge declares: "It will be recognized as one of the best new courses in the state. We hope to establish it as a premier tournament course to attract Tour events."

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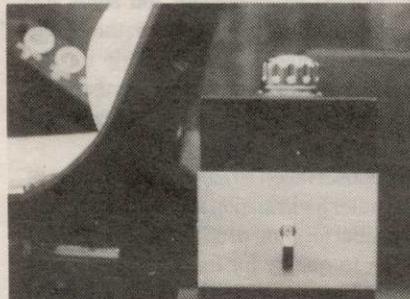
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# New buffalograss seed cultivars from Native Turf Group

MURDOCK, Neb. — Native Turf Group is making two new cultivars of buffalograss seed available to turf managers and golf courses for field testing in 1993. Meanwhile, several new cultivars of improved buffalograss are undergoing continued evaluation this year and will be available for commercial use in 1994.

Buffalograss' low-growing profile reduces mowing requirements, and it can survive with less water and pest control than bluegrass, bentgrass or bermudagrass. It also needs less fertilizer.

"We are developing several cultivars of true turf-type buffalograss which will meet the demand for desirable ecological characteristics, along with better aesthetic and turf qualities," said Dr. Robert M. Ahring, NTG project leader at Enid, Okla.

"We aren't interested in putting out 'warmed over' varieties of forage-type buffalograss that don't have the color or the sod-forming characteristics turf managers want. There are seeded varieties available that don't meet turf quality standards because they haven't been effectively screened," Ahring said.

The NTG intends to have some 50 acres of buffalograss in production this season, at locations in Nebraska and Oklahoma. Harvested seed will be made available for limited field testing this year. Even

## Best Sand gives turf scholarship to Clark student

CHARDON, Ohio — Best Sand Corp. has awarded its second annual turfgrass management scholarship to James Joseph Campion III, a turfgrass management student at Clark State Community College in Springfield. The scholarship covers the cost of tuition and books for the 1992-93 school year.

Announcement and presentation of the scholarship was made by Stuart Lipp, golf course marketing manager for Best Sand.

Campion intends to pursue a career as a golf course superintendent. He has served as a student intern at Baltimore Country Club in Lutherville, Md., and has worked at Kittyhawk Golf Course in Dayton and the National Cash Register course in Kettering. Campion is a member of the Ohio Turfgrass Foundation and Golf Course Superintendents Association of America.

The Best Sand Scholarship is awarded annually to a turfgrass management student from either Ohio State University in Columbus, the Agricultural Technical Institute in Wooster, or Clark State Community College in Springfield.

To qualify, applicants must be a second-year student at ATI or Clark State or in their second, third or fourth year at Ohio State.

newer cultivars are being grown in observation plots this year, in Nebraska, Oklahoma and New Mexico. In addition, five lines are entered in the National Buffalograss Turf Trials, with plots at 40 locations around the country.

The NTG has exclusive worldwide rights to propagate and market selected seeded buffalograss lines from the University of Nebraska, where cultivars selected especially for desirable turf qualities are under development. Dr.

Terry Riordan heads up the Nebraska program, which is based on clones selected from throughout the Great Plains region over the past eight years. The new varieties have done well in such diverse areas as Dallas; Lincoln, Neb.; Ithaca, N.Y.; Tucson and Yuma, Ariz.

Dr. Riordan says the new buffalograss lines have the advantage of using about 75 percent less water than cool-season grasses.

"Since roughs may comprise up to 60 percent of actual golf course

acreage, they are an ideal place to conserve water, energy and pesticide costs," says Riordan.

Because of its low growing nature, buffalograss offers turf managers the option of mowing only once every four to six weeks, or it can be maintained as high-quality turf and mowed weekly.

Buffalograss is sometimes propagated by vegetative "plugs" and can even be sodded. However, for wide-area planting, the new seeded cultivars offer the most eco-

nomical means of establishment.

The advantages of the new turf-type cultivars being introduced by NTG, according to Dr. Ahring, are that they form a tighter sod, have a shorter growth habit so they can be mowed less frequently, and have a more desirable color.

"We are even looking at regionally adapted varieties, where a buffalograss cultivar is bred specifically for lawns in the northern Plains area, for example," Ahring said.

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# THROW A KILLER LAWN PARTY.



## Southeast

### GTA BEAUTIFIES OLYMPIC SITE

ATLANTA — Members of the Georgia Turfgrass Association have agreed to design and beautify a public site for the 1996 Summer Olympic Games in Atlanta.



Following site selection, an intensive beautification plan will be undertaken, including landscape design, site preparation, foundation plant installation, color installation and maintenance. The proposal allows four growing seasons for plant establishment.

Approved by Atlanta Mayor Maynard Jackson and the city's Office of Olympic Coordination, the project will be coordinated and carried out by GTA members. Following the Olympics, the site will be turned over to the city for maintenance.

### ARNOLD TO JOHN: 'TAKE CHARGE'

AUGUSTA, Ga. — "The eyes of the golf world will be on John Daly from the time he first sets foot this month on that most sacred of turf — the Masters course. How he handles such enormous pressure will be an awesome responsibility."

The author of that statement knows first-hand that feeling. Four-time Masters champion and guest speaker Arnold Palmer tried to convey that experience to those attending the third annual Georgia Golf Hall of Fame dinner.

"Romping through the 1991 U.S. Open as the last-minute tournament entrant was, by comparison, a picnic," Palmer said. "Daly was free, loose — and remarkable. Now the real test comes."

Palmer concedes it's quite a burden to shoulder. Here's perhaps the longest hitter the game ever has known, at age 26 thrust into the spotlight and now expected to seize the moment, mature overnight and lead the next generation of golfers into areas not explored by such titans as Robert Tyre Jones, Walter Hagen, Ben Hogan, Jack Nicklaus and Palmer.

"In preserving the pattern of the past," Palmer declared, "Daly also must be acutely aware of the standards of excellence, tradition and etiquette followed scrupulously by such gentlemen of the game as Clifford Roberts."

Roberts, who died in 1977, was one of nine inducted here Jan. 4. Roberts chaired the Augusta National Golf Club from 1931 to 1976, and the Masters tournament from 1934 to 1976.

Palmer pointed out that golf, the "favorite people game in the world and getting bigger," has at the root of its success rigid adherence to standards, the same set forth by Bobby Jones as he set records, the same applied to the game's moderns, skilled or novice.

"Golf will expand to every corner of the earth in unbelievable numbers," Palmer said. "There are 25 million of us now. This may sky-

rocket to 40 million by the year 2000. No one ever is going to totally conquer the game, but each of us can achieve total enjoyment."

And Daly, the Babe Ruth who for one four-day stretch last summer set the golf world on its ear?

Said Palmer: "I hope Daly knows how much responsibility has been thrust upon him, and that he can lead us into a new era. He can do so much good for the game."

As for Palmer, looking forward to his 37th Masters in the "greatest" of tournaments, there will be the most marvelous of memories. His gracious touch with the public, the familiar hitch of the pants, the clutch

putt, the many rounds with President Eisenhower. Palmer seemed to be saying, "Go get 'em, John. Take charge of my Army!"

### VIRGINIA TURF HONORS

Richard J. Fisher, superintendent of Farmington Country Club, was presented the R.D. Cake Memorial Award for significant contributions to the orderly and progressive development of the Virginia turfgrass industry at the 32nd Virginia Turfgrass and Landscape Conference and Trade Show.

Fisher, a certified golf course superintendent, served as president of the VTC in 1988 and 1989 and

president of the newly formed Virginia Turfgrass Foundation in 1990.

Others were also honored. The Virginia Turfgrass Council Award was given to Richard Shaver, who has devoted years of service to the Virginia Tech turfgrass weed control program, serving as primary research technician for Dr. Wayne Bingham.

Robert Q. Cannell, head of the Virginia Tech Department of Crop and Soil Environmental Sciences, was awarded the VTC President's Award for his support of the turfgrass industry.

Several scholarships were presented, including the \$1,000 Noram

Scholarship to Tom Wilson. The Thomas B. Hutcheson Jr. Scholarship for \$500 was awarded to Mike Johnson and Michelle Frazier. The VTC presented \$500 scholarships to Scott Jordan, Pat Spillane, Dan Wheeler and John Anderson, students in the two-year agriculture technology school at Virginia Tech. The \$1,000 Larry S. Jones Memorial Scholarship was awarded to Kayle Bigelow.

Approximately 1,400 participants attended the event sponsored by the VTC, Virginia Cooperative Extension Service and Virginia Tech.

The show attracted 115 commercial exhibitors in 234 booths.

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\*Available for delivery fall of 1991. \*\*See owner's manual for complete warranty details. "Toro" and "Reelmaster" are registered trademarks of The Toro Company.

## Northeast

### KILE TAKES OVER IN MAINE

Dave Kile of Causeway Golf Club in Southwest Harbor has been elected president of the Maine Golf Course Superintendents Association.

Kile, who succeeds Roger Lowell of Webhannet Golf Course, is joined by new Vice President Dick Fahey of Poland Spring Country



Club, Treasurer Steve Hoisington of Martindale Country Club in Augurn and Secretary George Howe of PSI Inc.

Directors are Jim Hodge of Val Halla Golf Course in Falmouth, Pat Lewis of Portland Country Club and Warren Michaelsen of Irrigation System of Maine, who fills the one-year term left vacant by Hoisington.

Chris Heath and Lowell left the board of directors.

### N.E. SUPERS ELECT '92 OFFICERS

The Golf Course Superintendents Association of New England has elected its officers and directors

for 1992.

Stephen Chiavaroli of Tatnuck Country Club will serve as president, with Edward Bready of Bay Pointe Country Club as vice president. Elected secretary was Brae Burn's Robert DeRico, while The Orchards' Paul Jamrog will serve as treasurer.

A GCSANE member since 1978, Chiavaroli looks forward to improving the organization's public relations stance and its role in regional conferences.

"The GCSANE is becoming more and more involved in the planning of the Massachusetts Turf and Lawngrass Council's an-

nual Massachusetts Turfgrass Conference," said Chiavaroli, "and our association may soon be totally responsible for this event."

### NHGCSA AWARDS SCHOLARSHIPS

MANCHESTER, N.H.—The New Hampshire Golf Course Superintendents Association awarded \$3,250 to deserving turfgrass students at the opening of the 1992 New Hampshire Turf Conference in January.

The five honorees, all students at the University of Massachusetts at Amherst, were Craig Dagan, Ronald Dobosz, Richard Lawlor, David Stowe and Dennis Talon.

Also at the conference, Dave Huff

received the 1992 Distinguished Service Award. Huff is a Scotts technical representative who for many years has provided service to superintendents throughout New Hampshire, Maine and eastern Canada.

## North Central



### HAGCSA AWARDS HONORS

The Heart of America Golf Course Superintendents Association has honored two of its members — Lawrence (Kan.) Country Club superintendent Duane Patton and Champion Turf salesman Jim Heinze.

Heinze received the President's Distinguished Service Award for outstanding service on the Scholarship and Research Committee. As chairman, Heinze coordinated efforts that raised a record \$35,000, which was distributed to Kansas State University and Missouri University in the form of turf student scholarships and research studies.

Patton received the Chet Mendenhall Award, the chapter's highest honor. Patton has served on numerous committees and has been secretary/treasurer the past six years. He is systems operator of TURFBYTE, an electronic bulletin board for superintendents.

### IOWA SUPERINTENDENTS TO MEET

CEDAR FALLS, Iowa — The Iowa Golf Course Superintendents Association will hold a state meeting May 11 at Beaver Hills Country Club in Cedar Falls.

The ICGSA has planned a full menu of events in 1992. Those upcoming include the John Deere Pro-Superintendent Tournament at Amana Colonies Golf Course in Amana on May 18; the June 9 State Meeting at Red Oak Country Club in Red Oak; and the Iowa State University Turfgrass Field Day June 18 at the ISU Research Station in Ames.

## West

### GORHAM JOINS SPYGLASS TEAM

Jeff Gorham has been named assistant superintendent at Spyglass Hill Golf Course, according to Paul Spengler, vice president of golf for Pebble Beach Resorts.

Gorham comes to Pebble Beach from Incline Village Golf Resort in Nevada, where he was the assistant superintendent.

Gorham received his education at Cal Poly, where he graduated with a bachelor of science degree in ornamental horticulture.



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# IPM programs limited only by superintendents' imagination

Continued from page 13

- Take advantage of the dew when you spray.
- Know your threshold level for wind when applying chemicals.
- Look at the reason for the problem. "Is it shade, poor drainage, imbalanced soil? How about water quality? Maybe your water pH is high. Tests show that in some cases in 20 minutes of mixing organic phosphate with high-pH water, can reduce organic phosphate's effectiveness 50 percent."
- Tree trimming. Most people associate disease and tree problems with shade. Air circulation is just as critical.
- John's Island West's pesticide budget for 36 holes has been reduced \$21,000, largely due to more sunlight and better circulation from removal of 4,200 palm trees and 165 live oaks.
- Tree roots must be pruned. Tree roots will outdo turf every time. "Trim them, and you will see a dramatic difference in your turf."
- If you redesign your irrigation system, have a set of heads for the greens only and the tees only. Normally those two grasses are totally different.
- Spread out traffic.
- Aerify. A deeper root system equals healthier plants. Top dressing controls thatch.
- Apply polymers to reduce water usage. "You have to be careful with them, and research what you're going to use. But I can say they work."
- If an area is out of play, plant it in ground cover. There is no mowing, no fertilization, no pesticides.
- Eliminate drainage problems.
- Use white amur fish in lakes to reduce use of aquatic herbicides.
- Use a camera. "We have to sell ourselves to our members... Why? So that when you suggest changes you have credibility."

## THE TEAM SYSTEM

Start recommended superintendents use training and the team approach in their IPM programs.

He suggested:

- Set up a team. Members must be trained to interact as well as perform their responsibilities.
  - Develop a plan of action and put it in writing. "Communication is important so everyone in the club knows they're working to a goal, what the goal and the timeframe are. Define the tools necessary to accomplish it."
  - Monitor the course. A "scout," trained in turf maintenance, should regularly check the course — both visibly and with diagnostic tools. "Inspect and sample at the same times of day so measurements are comparable."
- "Successful programs are based on information gathering," Start said. "It's the superintendent's job, not the scout's, to recommend treatment."

He recommended breaking down the golf course into units and sub-units — quadrants, high and low elevations, fairways; number of heads on fairways.

"IPM can be likened to a mechanic's

toolbox, with a supply of the proper tools available to protect your turf. You just have to choose the proper one to use," he said

Start said one of the negatives associated with IPM is "the misconception of the untrained that IPM leads to the reduction or full elimination of pesticides. To the contrary, one of those tools in the toolbox is pesticides and it will remain an important one."

"We've all been guilty in the past of overusing this tool. Now is the time to re-evaluate what many of our peers have always known. Re-

member, IPM is used in conjunction with pesticides to provide pest management strategies."

Cadenelli said superintendents involved in IPMs are "looking at a new perspective. We're just not making chemicals our number-one choice."

He cited weather stations, disease testing, tissue testing and fertigation as important aspects of IPMs. "Let some of the golf course go back to nature. Give part of the course up to science," he added.

Cadenelli also suggested superintendents investigate computer

programs that can overlay the golf course and chart where the problems are over the next decade."

Hiers added that education of club members and the public will be critical to the future.

He pointed specifically to green speed, which he said endangers the health of turf and forces use of chemicals.

"There is a direct correlation between cutting height and stress on your greens. We have to educate our members about that. Only five percent of most clubs can put on

very-fast greens. But those that can are very vocal," he said.

"Golf courses can be beautiful. Learn the benefits. Educate members as much as you can. The more grass you mow, the more pesticides, water, electricity and gasoline you have to use. If we don't do our job and don't earn the trust of the public... we might not have a job some day."

"But, I know we're a benefit for our town, our environment. I know we recharge the aquifer. I know we clean the air. I know we provide a habitat for animals."

# Introducing The Perfect



For overseeding low cut areas and establishing greens and tees, no other fertilizer provides the kind of coverage and nutrient distribution that Country Club 10-18-18 does.

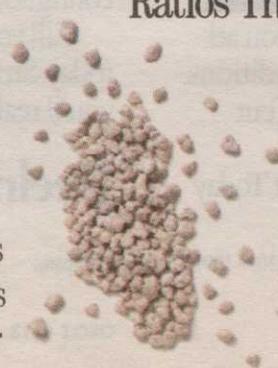
## It's All The Same.

When it comes to starter fertilizer, any turf manager worth his salt knows that homogeneous mixtures offer benefits that blends can't. Which is why every bag and every fine granule of 10-18-18 is exactly the same. Manufactured and tested under

the strictest quality control measures. Insuring uniform color and growth from start to finish.

## Ratios That Result From Higher Learning.

In developing the ratios for 10-18-18, we went back to school. Extensive university research on soil and tissue analysis goes into every bag of 10-18-18. Along with lower nitrogen content for slower growth. More phosphorus for better seedling germination and density. And



# EPA Appeals Board will act as final agency decision-maker

EPA Administrator William K. Reilly has announced creation of an EPA Environmental Appeals Board, a three-judge panel of senior agency attorneys

Board members are Edward E. Reich, former acting assistant administrator and deputy assistant administrator for the Office of Enforcement, and Ronald L. McCallum, chief judicial officer in the Office of the Administrator. The third member will be named shortly.

The Environmental Appeals Board will act as the final agency

decision-maker on an array of appeals from the adjudicatory decisions of administrative law judges, regional administrators in some cases state permitting officials. The board will replace the current judicial officer function in hearing appeals.

Reich and McCallum have been with the agency a number of years and have substantial background in environmental law. As a deputy assistant administrator, Reich was senior career official in the Enforcement Office with responsibility for management and oversight

of EPA's enforcement litigation. He has also served as EPA's associate enforcement counsel for waste and as director of the stationary source compliance division in EPA's air program. He earned his law degree from the Georgetown University Law Center in 1968.

McCallum was appointed chief judicial officer in 1984 after having served as the agency's sole judicial officer for six years. He also served in EPA's Office of General Counsel, beginning as an attorney-advisor in 1974.

Under the previous structure,

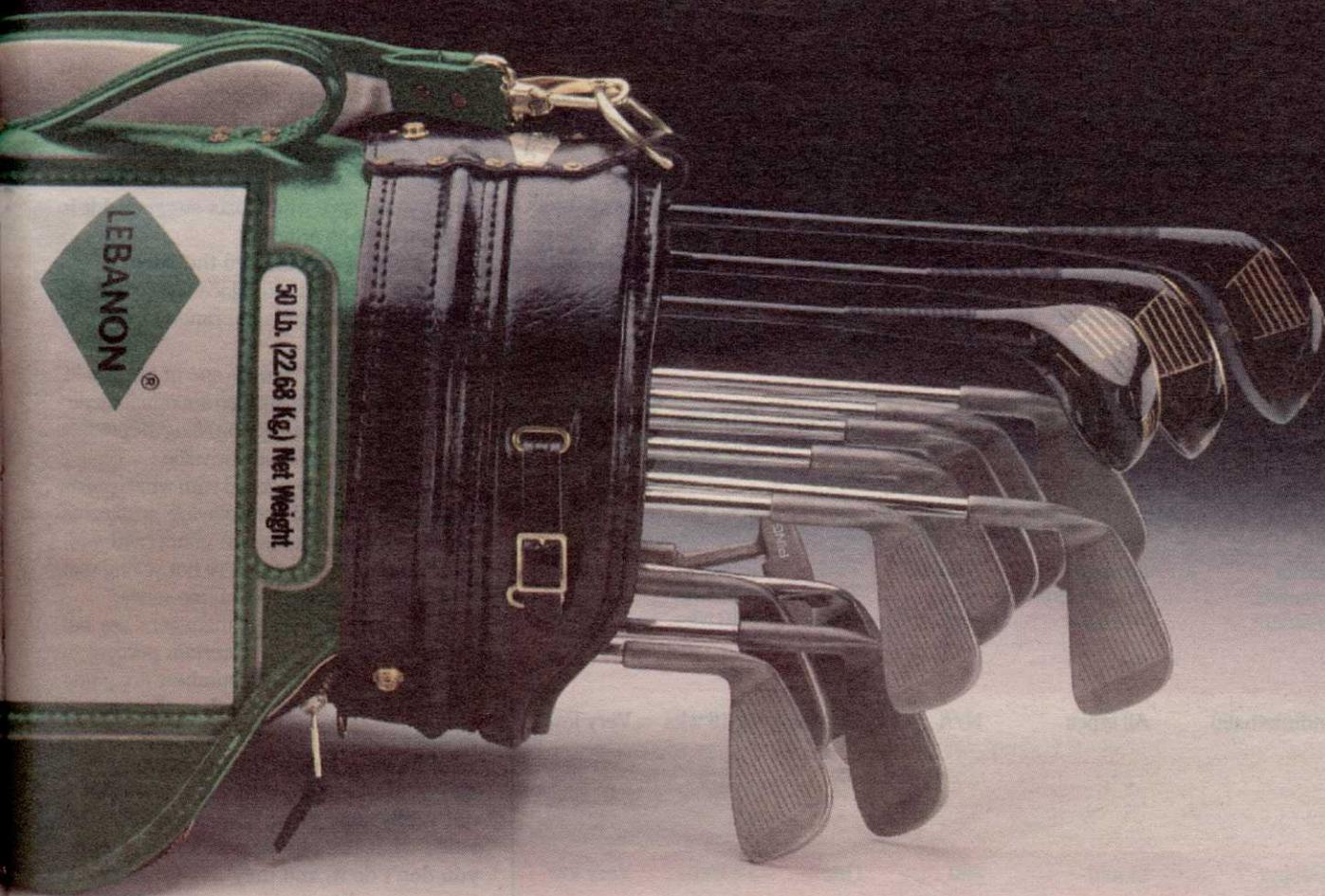
opinions were issued by a judicial officer or the administrator without the aid of oral argument. Under the new board, the administrator has delegated his authority to decide appeals under all the major statutes governing EPA.

The board will function as a panel in reaching decisions to allow for a broader range of input and debate in the decision-making process. Written opinions of these cases will be published and widely circulated and oral argument may be heard in cases raising important new legal

issues.

Administrative actions are direct enforcement actions taken by EPA without first going through the courts. EPA uses administrative actions to order companies to comply with regulations or to take other measures necessary to protect the environment. Administrative actions are also used to assess civil penalties, which are designed to remove the economic benefit gained by the violator and reflect the gravity of the risk the violation poses to human health and the environment.

# Bag For Greens And Tees.



more potash for hardier turf.

The end result—an agronomically sound product that delivers unprecedented performance.

## Better Greens For Less Green.

While Country Club 10-18-18 is certainly not one of the more inexpensive fertilizers, it is exceptionally economical to use. Because of its homogeneous formulation, 10-18-18 covers a whole lot more ground than several bags of a cheaper blend. Which makes it ideal for maintaining as well as establishing turf. And with

10-18-18's WIN content, there's also less leaching and volatilization.

For more complete information about 10-18-18, contact your local Country Club distributor or call Lebanon Turf Products at 1-800-233-0628.

Then carry our bags around your course, and find just how much they'll improve your game.

Country Club  
10-18-18 

CIRCLE #140

## Penn State names Hamilton head of turf program

UNIVERSITY PARK, Pa. — George Hamilton has been appointed to coordinate the Penn State Agronomy Department's two-year turfgrass management program.



George Hamilton

The certification program, which combines four eight-week sessions with a six-month professional internship, is oriented toward training golf course managers and other lasuperintendents.

Hamilton, who has earned bachelor's and master's degrees in agronomy from Penn State, has taught a variety of turfgrass courses and has been in charge of development for the university's Landscape Management Research Center since 1982.

## Schukraft super at Huntsville GC

LEHMAN, Pa. - The Huntsville Golf Club has appointed Scott A. Schukraft course superintendent.

Schukraft comes to Huntsville from Rolling Hills Country Club in Wilton, Conn., where he served as superintendent for seven years. While at Rolling Hills, he was responsible for establishing professional turf management standards on the course and in the maintenance operation. Among the construction projects was the installation of a state-of-the-art irrigation system.

Responsibilities in his new position include monitoring construction, growing in the new course, and maintaining the course and surrounding grounds.

A native of Fleetwood, Pa., Schukraft graduated magna cum laude from the Delaware Valley College of Science and Agriculture in Doylestown, Pa. He received the Outstanding Agronomy Student Award.

In July 1991, Huntsville Golf Club announced plans to construct an 18-hole championship course on 477 acres in Lehman Township.

# Improving pre-emergents kill goosegrass early

By Mark Leslie

Throughout the Southeast, golf course superintendents keep a close eye on forsythias at the first of each year. Why? When forsythias bloom superintendents start to apply pre-emergent herbicides to beat their nemesis goosegrass to the punch.

United States Golf Association agronomist John Foy said: "Goosegrass in north Florida through the Southeast has a preset window of germination. For effective pre-emergent control, you need to get the pre-emergent material down before that time, but close enough to have good residual through that window."

Except for south Florida where goosegrass essentially germinates year-round, the "window" normally is the first month after the forsythia blooms, according to Foy, Dr. Euel Coats of Mississippi State University, and others.

"Timing is essential," agrees Tim Hiers, golf course manager at John's Island West in Vero Beach, Fla. "The big problem with goosegrass is that it multiplies."

Prolific? Goosegrass is to the world of weeds what rabbits are to the world of animals.

A typical plant may produce thousands of seeds. And, said Foy, "a seed head can form even when it's being mowed at three-sixteenths of an inch or less."

And goosegrass is ugly, so superintendents attack it with vengeance.

University and manufacturing company researchers recommend:

- Apply a single treatment or the first of two treatments of a pre-emergent herbicide in that "window." The window in Ohio is mid-May, but across the South it is mid-February to late-March, depending on elevation. A split treatment entails an initial treatment with half the dosage per acre and a second treat-

ment with the other half 60 days later.

- Follow with a post-emergent herbicide application to kill whatever remains.

Most pre-emergents kill 80 percent or more of the plants before they emerge through the soil surface.

O.M. Scott's project leader for chemicals,

Ray Huey, explained, "The pre-emergent forms a barrier at the soil surface, so when the goosegrass germinates, it comes in contact with the herbicide and dies."

Meanwhile, the turf's root system is below the herbicide, so remains largely unaffected — unless it is under stress.

Dr. B.J. Johnson of the University of Georgia at Griffin said "a lot more" pre-emergents are available to turf managers today than 10 or 15 years ago. And Coats suggested it is worth it to shop around.

Coats last year checked the prices of the products on the marketplace and found the cost per acre of treatment ranged from less than \$50 to \$195.

Yet, Coats said: "This is one of the few industries where turf is such an important player. We're not placing the value on lifting the product and selling it. It's an aesthetic value..."

"We're not as concerned with what it costs to give us that uniform playing surface as people in other fields are concerned with their product, because we're not selling that product in a classical economic sense."

"That does not mean managers are not dollar-conscious. With a certain percent of the clientele, those high numbers are going to be less of a hindrance than they are on people in almost any other industry."

"When you look at the thousands of dollars of extra material in a single year, it's not really that great. Especially if it provides what the clientele is looking for. If you don't do it, and they don't come back because you've got goosegrass, you've lost their business."

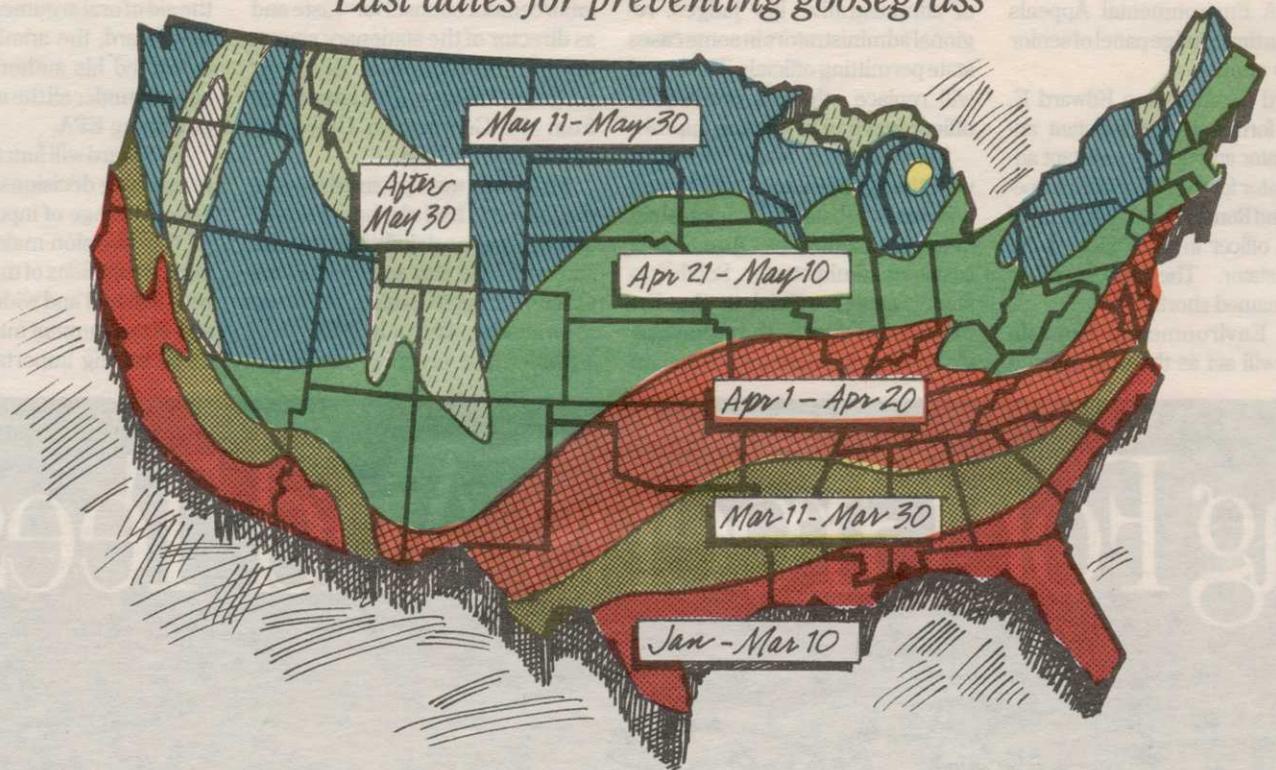
## RESEARCH AND DEVELOPMENT

Johnson said that in selecting a pre-emergent for goosegrass: "I'd be interested in a product that could give us consistent performance from year to year, and not have the variability we often find. Most of the herbicides we have now do give us very good control some years, then the next year is not as good."

"Pendimethalin has generally given us very good performance, but last year it bottomed out, probably due to excess rainfall during early spring and into summer. On the other hand, oxadiazon performed very well."

Huey said that with the advent of balan, then pendimethalin in 1985, "along came a lot of DNA (chemical group dinitroaniline) products that

Last dates for preventing goosegrass



Courtesy of O.M. Scott

## Goosegrass pre-emergents in the marketplace

Company	Product	Active ingredient	Formulation	Cost per acre	1 or 2 app's	Length of residual	Mobility
<b>DowElanco</b> 9002 Purdue Rd. Indianapolis, Ind. Tel: 800-352-6776 Circle #201	Balan 2.5G	Benfenin	Granular	N/A	Two	8-10 wks	Very low
	Surfian 4AS	Oryzalin	Liquid	N/A	Two	12-16 wks	Low
	Team	Trifluralin/Benfenin	Granular	N/A	Two	12-16 wks	Very low
	XL	Oryzalin/Benfenin	Granular	N/A	Two	12-16 wks	Low
<b>ICI Americas</b> New Murphy Rd. Wilmington, Del. Tel: 302-886-1660 Circle #202	Betasan	Bensulide	4E; 7G; 12.5G	N/A	One-two	4-12 wks	Low
	Devrinol	Napropamide	50WP; 5G; 2G	N/A	One-two	4-12 wks	Low
<b>Lebanon</b> 1600 E. Cumberland St. Lebanon, Pa. 17042 Tel: 800-233-0628 Circle #203	Balan 2.5G	Benfenin	Granular	N/A	Two	8-16 wks	Not mobile
	Betasan 4-E	Bensulide	Emulsifiable lqd	N/A	Two	8-16 wks	Not mobile
	Betasan 7G	Bensulide	Granular	N/A	Two	8-16 wks	Not mobile
<b>LESCO</b> 20005 Lake Rd., Rocky River, Ohio Tel: 800-321-5325 Circle #204	Pre-M	Pendimethalin	All types	N/A	One-two	12-16 wks	Very low
<b>Monsanto</b> 10000 Old Olive St. Rd. St. Louis, Mo. 63167 Tel: 314-694-4345 Circle #205	Dimension	Dithlopyr	Liquid	\$90	One	3-4 mths	Very low
<b>Rhone-Poulenc</b> P.O. Box 112014 Res'ch Triangle Pk, N.C. Tel: 919-549-2000 Circle #206	Chipco Ronstar	Oxadiazon	Granular	\$100-\$200	One	16 wks	Not mobile
<b>Sandoz</b> 1300 E. Touhy Ave. Des Plaines, Ill. 60018 Tel: 708-699-1616 Circle #207	Barricade 65WG	Prodiamine	Granular	N/A	One	All season	Not mobile
<b>O.M. Scott</b> 14111 Scottslawn Rd. Marysville, Ohio 43041 Tel: 513-644-0011 Circle #208	Goose/Crab Control	Betasan/Ronstar	Granular	N/A	One	All season	Not mobile
	South'n Weed Control	Pendimethalin	Granular	N/A	One-two	All season	Not mobile
	Turf Starter	Ronstar	Granular	N/A	One	All season	Not mobile

Continued on page 22



# Pre-emergents fight goosegrass before it gets started

Continued from page 20

have been considered effective and less costly."

He added, "We're continuing the search with some of the newer chemicals along with older ones."

Dr. Bert McCarty of the University of Florida at Gainesville said one of those new chemicals is dithiopyr, or Dimension.

"Dimension is a newer class of chemistry — pypridine — that has higher activity," McCarty said.

Produced to fight crabgrass, as many goosegrass herbicides are, Dimension's major limitation

against goosegrass is its application rate restriction of one-half pound per acre, McCarty said.

Monsanto, Dimension's manufacturer, has requested an increase to three-quarters of a pound, according to product development associate Stewart Sherrick. Sherrick said if the Environmental Protection Agency grants approval, which he expects, the new rate will be available next season.

McCarty said a three-quarter pound application rate would make Dimension "pretty equal" to Ronstar in effectiveness. But, "Ronstar

doesn't hurt rooting as badly as Dimension and others do," he said.

Meanwhile, Foy, director of the USGA Green Section's Florida Region, said: "I haven't seen a dramatic improvement in anything over Ronstar. The basic materials haven't changed significantly the last 15 years. Dimension is supposed to provide longer residual, but we haven't had a chance yet to test it in the field."

## GREENS THE MAJOR CONCERN

The major problem areas on golf courses are the high-traffic areas and greens. Only three pre-emergents — bensulide, oxadiazon

and dithiopyr — are labeled for use on greens, so the options are fewer than for fairways.

"The greens are the most important part of the course, but only two percent of the area," said Coats. "From a purely business standpoint, the risk is much higher on the greens. If something goes wrong, and the product over-performs on the turf, the liability is extremely high. Replacing 43,560 square feet of golf greens is a different ball-game than replacing 43,560 square feet on a fairway.

"On better golf courses, where you have USGA greens or modified greens

that are high-percentage sand, you don't have absorbency capacity in the soil... Consequently, from a tolerance standpoint, a given amount of herbicide is more active than it would be out on the fairway, where you have a clay-loam or even a sandy-loam soil.

"You're stressing the grass on that green because you're mowing at a low height."

Coats warned: "If you have an acre of greens, you use three pounds of a product and you're paying \$40 to \$50, plus liability, if it goes berserk in the night. That doesn't happen often, but it doesn't take very often. Not only do you lose greens but, in certain court-houses, you're also liable for lost revenues.

"So, not many companies are willing to take the risk."

## FAIRWAY PROTECTION

"There are not nearly as many limitations on the fairway," Coats said. "You have a much greater arsenal of materials to choose from."

Goosegrass is also easier to fight on the fairway because the grass is mowed higher and it is generally in soil, rather than sand, so "the grass is much more tolerant."

## TOSS OUT THE RULES IN S. FLORIDA

South of Orlando, Fla., superintendents can throw out all the rules on application.

"It's a different world there," Coats said. "Goosegrass never completely goes dormant there."

Foy said: "Under our conditions in south Florida — with high humidity, a long growing season, high rainfall and sandy soils — you don't get the (longer) residuals you get elsewhere. Advertisements that claim season-long goosegrass control are referring to the traditional areas of the Southeast."

The University of Florida's McCarty added: "Some of the inconsistency we see in Florida, that they don't in other states, is because we have much warmer temperatures year-round... Pesticides are active almost year-round.

"Second, we have large, sandy soils which are low in cation exchange capacity. Therefore, they don't hold the herbicides as well. Third, we get thunderstorms and heavy rain and that can move or break down the herbicides more quickly than other states."

"In south Florida," Foy said, "you should apply once in the spring (late-February to mid-March) and once in the fall (late-September to October). And expect some plants will escape and you will have to use post-emergent products."

## HEALTHY TURF A DETERRENT

Yet, the best way of all to control goosegrass, Foy said, is to "maintain a good healthy turf cover and out-compete the problem. Use basic, sound turfgrass management: proper aeration schedules, fertilization, mowing heights, et cetera.

"Then, when you are doing everything you can, and you still have an unacceptable invasion of goosegrass, a pre-emergent program is the best way to control it. It is easier to control a plant before it gets started than afterwards."

The dawn of a new generation  
in fertilizer technology.

**POLY-S**  
TECHNOLOGY

Turf researchers have long known the benefits of polymer coatings on fertilizers. But, until now, that performance came at a premium price.

With its unprecedented Poly-S technology, SCOTTS can offer you the performance of advanced polymer coating technology at a price comparable to traditional sulfur coated urea (SCU) products.

Poly-S technology offers a superior alternative to SCU fertilizers, with extended release, excellent flexibility in release rates, and more predictable response. Each Poly-S fertilizer is a dry, dense, free-flowing, physically homogeneous product specially designed for use with a broadcast spreader.

With Poly-S technology, there's minimal potential for leaching, run-off and volatilization. And its "efficiency" of release results in a significant reduction in clippings.



Poly-S technology provides higher nutrient efficiency than SCU fertilizers with the capability for a consistent, programmed linear nutrient release and the flexibility of "dialing" the release rate appropriate to different applications. This efficiency also provides virtually no unreleased nitrogen or "lock-off." The result: more value from the fertilizer you apply, with an overall improvement in turf quality.

It is the most efficient — and cost-effective — turf fertilizer technology ever developed. And it's available now — only from Scott.

For more information about Poly-S fertilizers and their performance advantages, contact your Scott Tech rep. Or call 1-800-543-0006.



Growing Better Through Technology

# Georgia.



If you think Yamaha makes Japanese golf cars, maybe it's time you brushed up on your geography.

Truth is, Yamaha cars are made in America. By Americans.

Our expert teams roll superior golf cars off the assembly line every day in Newnan, Georgia -- the home of Yamaha's state-of-the-art manufacturing facility. It represents our commitment to the U.S. golf industry, an assurance of our continuing reliance on cutting-edge technologies.

We also take a future-minded approach to fleet-management. Our corporate size and golf industry experience allow us to tailor comprehensive financial pack-

ages for fleet operators. We, in conjunction with our nationwide dealer network, can help you advantageously invest in a fleet that maximizes revenue and return on investment.

The result is profit-building fleets in demand the world over. And whether we export those cars to Orlando, Florida or Osaka, Japan, you can be sure they were built right here in Newnan, Georgia.

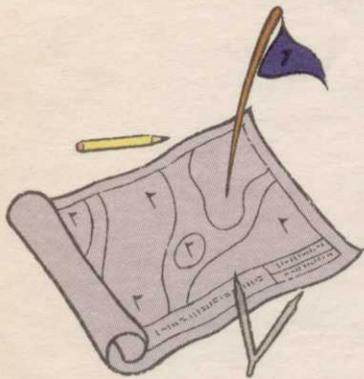
Learn more about the efficient, reliable fleets made in our Georgia factory by calling 1-800-447-4700 for the Yamaha USA Golf Car Dealer near you. He'll show you proof that Americans do indeed make the world's finest cars.



**YAMAHA USA**  
Better in the long run.

CIRCLE #115

## Briefs

**REES JONES LOOKS WEST**

Golf course architect Rees Jones will design his first course in the western United States — in the Oregon coastal community of Florence.

Jones will lend his talents to the Florence Resort Community (FLORECO), a 242-acre development that began construction in February. The development will include housing parcels and a hotel/commercial site, but the Jones course will be its center.

Working with Jones' team will be The Design Professional Group of Grants Pass, Ore. Engineer T.J. Bossard, community and land use planner Alex Forrester and designer/architect Ken Snelling have worked on numerous coastal residential communities.

"It's a great site with incredible potential," said Snelling.

**WALKER JOINS BURNS GOLF DESIGN**

FERNANDINA BEACH, Fla.—Thomas E. Walker has joined Burns Golf Design.

Walker has been in the golf business for more than 20 years, most recently as vice president of construction services for Gary Player Design Co.

He also spent five years as a construction manager with Wadsworth Golf Construction Co. He worked several years as a superintendent at various courses, including the Key West Resort, where he was also golf general manager. He earned his bachelor of science degree in agriculture, with a minor in landscape architecture, from Kansas State University.

Burns Golf Design was started three years ago by Steve Burns, a former designer with Tom Fazio.

**RENOVATIONS AT PALMAS DEL MAR**

HUMACAO, Puerto Rico—The Gary Player-designed 18-hole championship golf course at Palmas del Mar Resort, located on the Caribbean coast of Puerto Rico, has undergone \$750,000 in improvements.

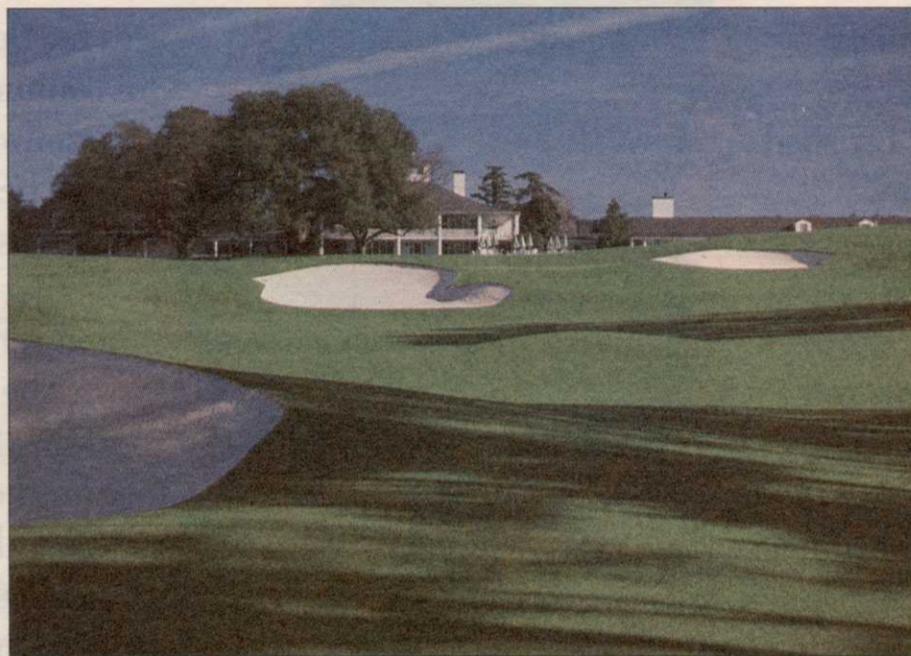
The par-72, 6,960-yard course and all other resort operations have been managed by Dallas-based Club Resorts Inc. since last May when the firm was selected by Houston-based owner MAXXAM Properties Inc.

Improving the drainage and irrigation systems throughout the course was one of the most significant projects undertaken, said Mark Tallmadge, superintendent. An extra 300 yards were added to the course through redesign of the tee boxes on the 3rd, 4th, 6th and 7th holes. Each of the 18 holes features two to four tee boxes.

# Finishing a tourney track with style



The 18th at Doral's Green Monster course (above) garnered the respect of PGA Tour players, as did the finishing hole at Augusta National (below).



## PGA players comment on how to build a tough but fair 18th hole

By Bob Seligman

Creating a great finishing hole encompasses a variety of ingredients, according to PGA Tour professionals. Take a heaping of toughness, although the exact amount is debatable. Measure shot making values and whether the hole is for a scratch or high-handicap player. Enclose in natural elements. Broil in a pressure-cooker situation that demands the best out of the player, particularly in a tournament situation. Top with tradition.

"You try to give the people something to remember, not necessarily in a negative note to carry water 250 yards," said Hale Irwin, a three-time U.S. Open champion. "You want to test them for that they can achieve."

Touring professionals differ on the degree of toughness required of a great finishing hole to make a player's achievement possible. Some said a great finishing hole should be one of the toughest holes on a course, while others feel it shouldn't be that difficult.

"It ought to be difficult," said Irwin, who has his own golf course design business. "You should close any course with a hole that's in the top 20 percent or 30 percent in difficulty."

"It doesn't have to be the toughest hole," said Steve Ballesteros, a former British Open and Masters champion who has designed 12 courses in Spain and France "but it should be tough to make birdie."

"You want a real tough finishing hole, no matter what the par may be," said former U.S. Masters and PGA champion Raymond Floyd.

But some players feel that less-difficult holes can still make great finishers.

"It should be relatively easy," said Paul Azinger, one of the PGA Tour's leading money winners, "You want to leave a good taste in the mouth of the guy who plays there every

Continued on page 46

## Europeans beginning to experience growing pains on development front

By Peter Blais

An influential member of the European golf industry fears the many government and golf industry committees trying to establish course construction guidelines could hinder new development in the region.

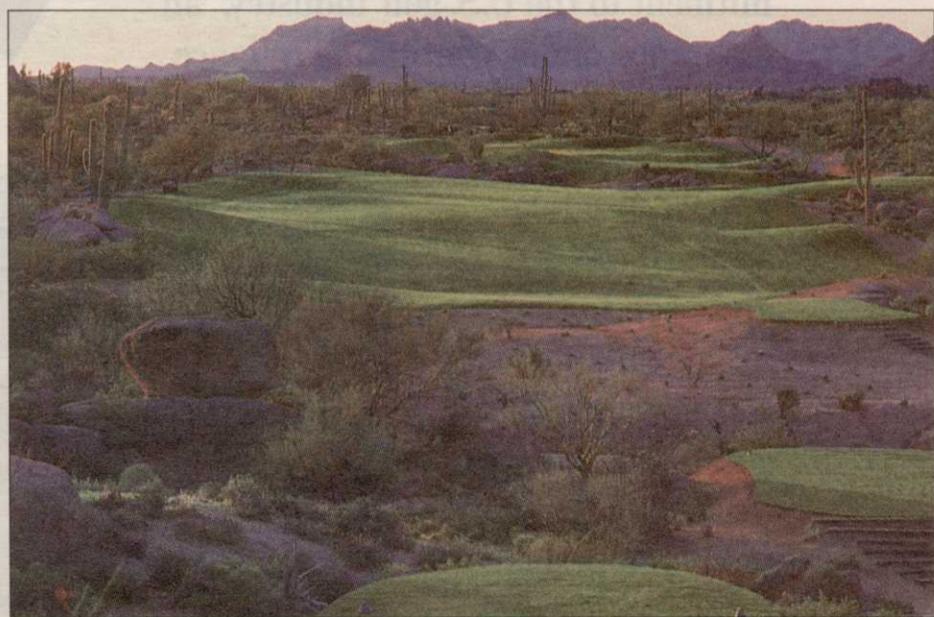
"I am very concerned about the future of golf in Europe, unless we get our act together and properly organize," said Jaime Ortiz-Patino, president of the Club de Golf Valderrama in Sotogrande, Spain, recently voted the top course in Europe by the European magazine *Golf World*.

Ortiz-Patino is also founder of the Valderrama Award, given annually to a Spanish turf student to study at a U.S. turf school.

One of Ortiz-Patino's major concerns involves the United Kingdom's Joint Golf Course Committee, which includes the four national golf unions — British, Welsh, Scottish and Irish. The committee's goal is to work with the four unions and other European associations to improve the quality of European golf.

Patino is a member of a JGCC technical committee, charged with improving de-

Continued on page 26



The 4th hole of The Boulders' new nine features an elevated tee overlooking the fourth fairway with a vista all the way to Pinnacle Peak. The par-4, 409-yard hole has a natural wash to the left that is home to quail, mule deer and a family of bobcats. Saguaro cacti line the fairway and a two-level green is tucked away behind a rock formation.

## Morrish designs new nine holes for The Boulders

CAREFREE, Ariz. — In case The Boulders had not won enough plaudits, Westcor Co.'s private-resort course has opened a new nine holes designed by architect Jay Morrish.

The new nine joined the existing Boulders Nine, creating The Boulders South Course. The nine-hole Lake and Saguaro layouts are now The

Boulders North Course.

Morrish designed the new nine for golfers of all skills and strengths.

The original Boulders Nine was designed by Robert Lawrence in 1969. Arthur Jack Snyder added nine holes in 1974, revised the original nine, and made occasional changes for several years.

## GRIP: Matching movers, shakers

Continued from page 1

have obviously been scouring the papers for the kind of vehicle we're offering. We did not expect an immediate critical acclaim for the service."

The electronic service makes matches between investors and golf/recreation industry entrepreneurs who have joined GRIP looking for finances.

More than 70 entrepreneurs and 1,520 investors are listed in GRIP, and Forecast aims to add another 1,000 investors by the end of the year.

From apparel to golf courses, to backing a touring pro — opportunities abound, according to Marlowe.

He said: "We are building up the number of investors who are interested in things other than golf facility projects. A lot of people are interested in the rack business. Finding an investor who is specifically interested in backing a Tour player might not be so easy. But there are people out there who are interested in that type of thing."

"We are also getting individuals — architects and landowners — calling. Some say, 'I'll dedicate land if you'll find a developer.' Every golf course development company in the country has deals like that. Whether they are viable or not, we can't say. But they are there."

Saying GRIP is micro-market focused, Marlowe added: "It is important to us that every business gets a fair shake. It's important that no business goes out of business because it can't get what it needs."

"We are trying to continue industry growth as a result of this service, because there is nobody out there watchdogging the small business, which is where ... innovations come from."

Lamenting that obtaining a patent today is difficult and costly, Marlowe said: "Without an angel to help these guys, a lot of patents and ideas will never see the light of day. And yet, they have the impact of potentially revolutionizing the industry and contributing to a big growth spurt in golf again."

"GRIP could conceivably become a major clearinghouse for the industry, if we can empanel the board we envision for it ... and if we ultimately create the Center for Entrepreneurial Study we intend."

"It's easy for (a major 'name' developer) to get out and say I need \$5 million or \$10 million to build a course. Merrill Lynch will chomp at the bit to do it for them. But who does the average guy go to? And yet, the backbone of this industry has always been small business."

Stressing that GRIP does not compete with the National Golf Foundation, which is "macro-oriented," Marlowe added: "We saw a void and we intend to fill that void. That means we have to cooperate, complement and supplement all the existing organizations. And that's all we have in mind."

## GRIP system computer-driven, but user-friendly

Golf & Recreation Investment Program may be computer-driven, but it works simply.

This is how:

- An entrepreneur seeking funding presents a profile of their business and what they are going to do with the funds they are soliciting.
- GRIP matches that profile against all the investors' investment profiles.
- When there is a match, the investment opportunity profile is sent to the investor, or investors.

If an investor gets back to GRIP and expresses interest, GRIP tells them how to contact the entrepreneur.

GRIP membership costs \$100 for a six-month listing for entrepreneurs; \$200 a year for individual investors; and \$500 a year for corporate investors. Investors must be "accredited" under the U.S. Exchange and Securities Commission because GRIP cannot supply any counseling as to the potential success of the deal.

"We don't get any fees at all that have anything to do with the successful completion of the project. We are not a broker," said Scott Marlowe of

GRIP's operator, Forecast Golf Marketing and Financial Systems, Inc. in Richmond, Va. "Our only revenues from GRIP are subscription fees. Those fees are set up to cover only our operating costs. We are only trying to provide a service to the industry designed to keep it growing."

Marlowe said he wants to add more entrepreneurs and investors to join the program. More members should translate into more matches being made.

"We now have 70-plus entrepreneurs and 1,520 investors," he said.

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# European development

Continued from page 24

sign standards of British courses and setting guidelines on how they should be built.

Patino is worried about remarks by fellow committee member Brian Pierson, chairman of the British Association of Golf Course Constructors. Pierson said the builders' group is considering developing English standards for building greens to "combat" USGA specifications, according to Patino.

"We're not at war. So why the word combat?" he asked. "When I read these reports, I get very worried. I can't see why we just can't adopt what works. I don't mean we should just accept everything the USGA says. But why not use what has worked for many years as guidelines? The European PGA Tour is also very concerned with this approach."

The European Golf Environmental Committee was also formed recently. Among its members are the Golf Course Wildlife Trust and the European Golf Association.

The group's objectives include setting national standards for building and maintaining golf courses; developing turfgrass research institutes; establishing the position of golf relative to environmental groups; introducing measures to popularize golf; establishing the committee as an independent subsidiary of the European Golf Association; and organizing an international golf institute controlled by the EGA.

"They will be duplicating a lot of existing efforts. What it is they are planning to do I really have no idea," Patino said.

Finally there is the "big dagger hanging over everybody in Europe," the European Committee for Uniform Standards. Working out of Brussels, it aims to establish uniform standards for all sports in the 12 European Community member countries.

So far, the committee has concentrated on soccer, cricket, field hockey, tennis and other sports. But within two years, it will be studying golf, including how courses should be built

and maintained.

"We have to get them information about golf so they don't come up with some crazy edict about the way courses should be built and maintained," Patino said. "It's a very big concern. We have to get them to come up with something sensible."

"If, in the meantime, we are all fighting among ourselves, it's going to be very difficult."

Concerted efforts to establish common standards in other sports have been occurring in Europe for some time, Patino said. But that is not so with golf.

American groups like the Golf Course Superintendents Association of America and U.S. Golf Association have long-established golf standards. Patino believes the European uniform standards committee would be better off incorporating these tried-and-true guidelines rather than adopting a little of each European country's standards.

While borrowing some of each nation's expertise may be politically easier, it may result in poor standards, he said.

The major danger is the various golf associations dissipating their efforts in uncoordinated and under-resourced programs, he said.

While somewhat bearish on future development, Ortiz-Patino is bullish

on the immediate past.

In 1990, 250 new European courses opened. France, 73, and the United Kingdom, 59, accounted for more than half, Ortiz-Patino said.

In 1991, Europe opened 240 courses. The UK took the top spot with 67 new facilities, followed by France and Sweden with 40 and 25, respectively.

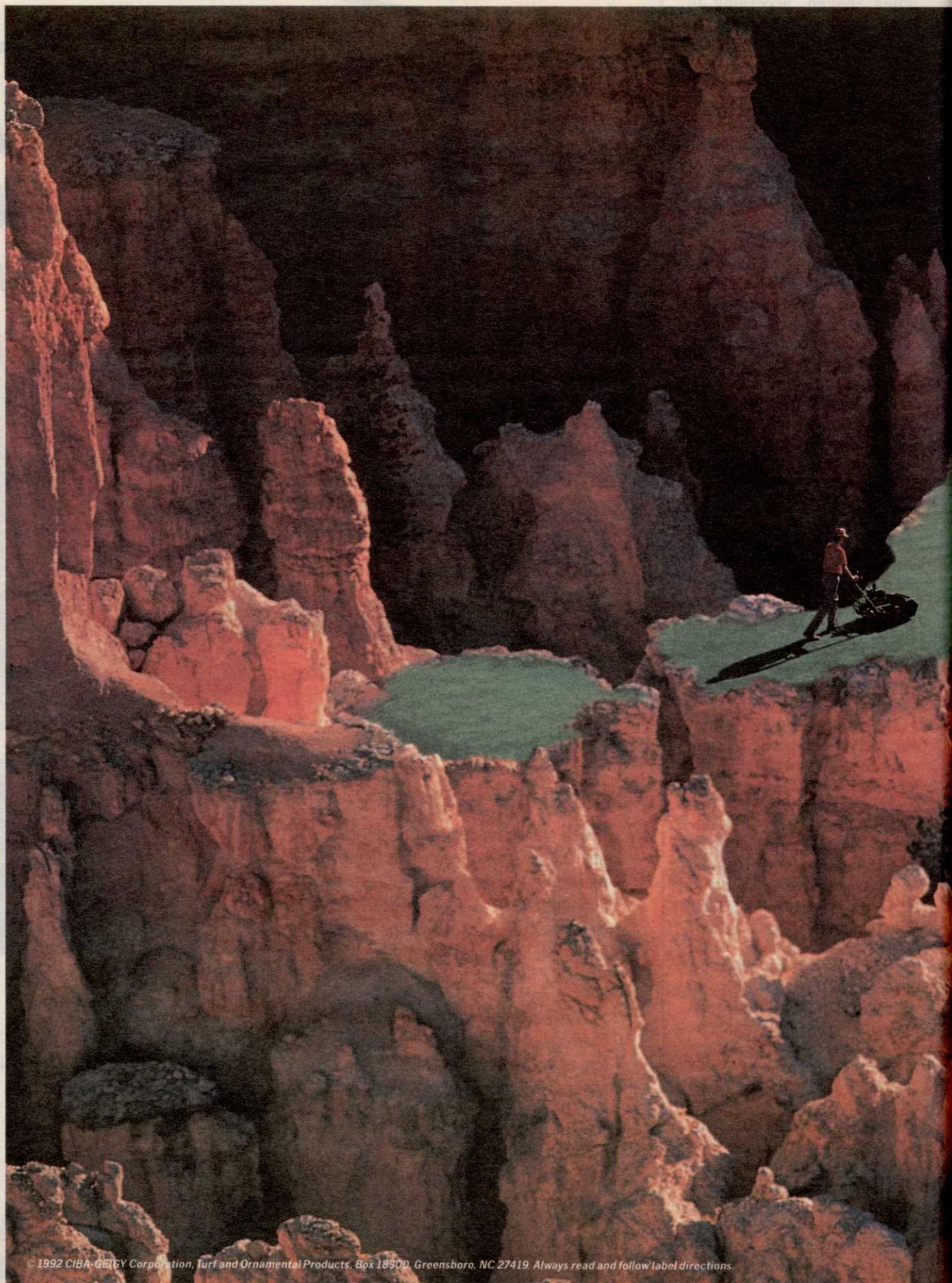
At the start of 1991, there were 3,678 courses throughout Europe. Sixty percent were in Britain, with one 18-hole course per 26,600 citizens. That's far better than the 112,000 people per course in continental Europe, but slightly behind the one course for every 23,000 inhabitants in the United States.

While Britain was Europe's most

prolific golf course builder last year, the gap between continental Europe and the British Isles is narrowing. By 1997, the rest of Europe should have as many golfing facilities as the United Kingdom.

But Europe is unlikely to ever catch the United States, which has about 10,000 more courses and is growing at a slightly faster rate, Patino said.

"I wish in the meantime they (Europe) would find ways to just keep them (courses) in as good playing condition (as in the United States)," he added during the Golf Course Superintendents Association of America's International Forum at its annual conference and show in New Orleans.



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## Openings

Country	1990 New	1991 Projected
Austria	2	7
Belgium	6	4
Denmark	4	7
England	49	50
Finland	10	10
France	73	40
Germany	20	26
Greece	0	0
Ireland	6	10
Italy	10	12
Luxembourg	0	1
Netherlands	6	11
Norway	5	4
Portugal	1	3
Scotland	2	5
Spain	26	12
Sweden	25	35
Switzerland	1	1
Wales	2	2
Yugoslavia	0	0
<b>Total</b>	<b>248</b>	<b>240</b>

# As U.S. Open approaches, Pebble Beach in fine fettle

Continued from page 1

renovations and the much-publicized ownership change.

"I think the golf course is in marvelous condition," said Tom Meeks, director of rules and competitions for the United States Golf Association.

Superintendent Brad Hines concurs. "It's never looked better," he said. "And that's not just from me. That's from anybody who's played it or seen it in the last six months.

"We could play the U.S. Open today and it would be just fabulous."

Reports aren't so positive on Minoru Isutani, the Japanese golf tycoon who purchased Pebble Beach last year. In February, with his plans to sell private Pebble memberships foiled by the California Coastal Commission, Isutani agreed to sell the property — at a \$300 million loss — to Lone Cypress Co.

The deal went through March 6, and there is speculation the Pebble Beach sale is part of a larger strategy to maintain Isutani's solvency.

Indeed, Cosmo World Inc. of Nevada — another firm owned by Isutani — filed for Chapter 11 bank-

ruptcy on its Silver Canyon project in Henderson, Nev., in December.

The majority owner of Lone Cypress is Taiheyo Club Inc., a Japanese firm that operates nine golf courses in the Land of the Rising Sun. The minority owner is Sumitomo Credit Service, the largest issuer of Visa credit cards in Japan.

Taiheyo President Masatsugu Takabayashi says his company will be a good neighbor.

"We will make this much better than Mr. Isutani's ownership," Takabayashi told the Wall Street

Journal. "We will make this good for the community, the state of California and the United States."

This means keeping the Monterey shoreline open to the public and not selling private memberships — all of which makes the Coastline Commission happy.

One might legitimately ask, however, if the turbulent ownership issue has compromised course condition at Pebble Beach.

"You always worry about things you have no control over," said Stuart Bloch, president of the

USGA. "But I can honestly say the golf course is in the best shape it's ever been."

PGA Tour players were generally positive following the AT&T National Pro-Am in January. But as Bloch warned: "The players will find the fairways a little narrower than the AT&T."

"It was in nice condition for the Pro-Am, and it should be even better for the Open," added Meeks, who believes the change in ownership has not affected ongoing renovations.

"I don't think it's had any effect at all. Plans were going extremely well under the previous owner, and we've had the same level of cooperation from the new Pebble Beach staff."

In fact, Hines had praise for both Japanese regimes.

"I've been here for a year and a half," he said, "and both owners were very golf oriented. They've been very good about putting money into the course."

This is more good news because the changes at Pebble Beach — which played host to U.S. Opens in 1972 and '82 — are anything but superficial.

In order to conform with the original 1919 specifications of architects Jack Neville and Douglas Grant, a thorough renovation has been undertaken on all collars, tees, bunkers and greens — including reclaiming putting surfaces lost over the years to encroaching rough on their perimeters.

The 4th, 5th and 7th greens have been entirely reconstructed to USGA standards. Furthermore, a unique heating system was installed beneath the heavily shaded 5th green to maintain soil temperature and assure good grass growth during the cold winter months.

Hines said the thermostatically controlled system, employed exclusively at Pebble Beach and Augusta National, keeps the green at 53 degrees year-round. Warm water is pumped through three miles of underground surgical tubing, thus "stimulating the soil temperature to have the right growing medium at all times," Hines explained.

## Ground broken on Lake Acworth

MARIETTA, Ga. — As 1991 faded into memory, construction commenced at Lake Acworth Golf Course, northwest of Atlanta just outside Marietta.

Golf West Companies of Fresno, Calif., has been retained by Cobb County officials as the developer. Ken Dye of Houston-based Finger Dye Spann is the course architect.

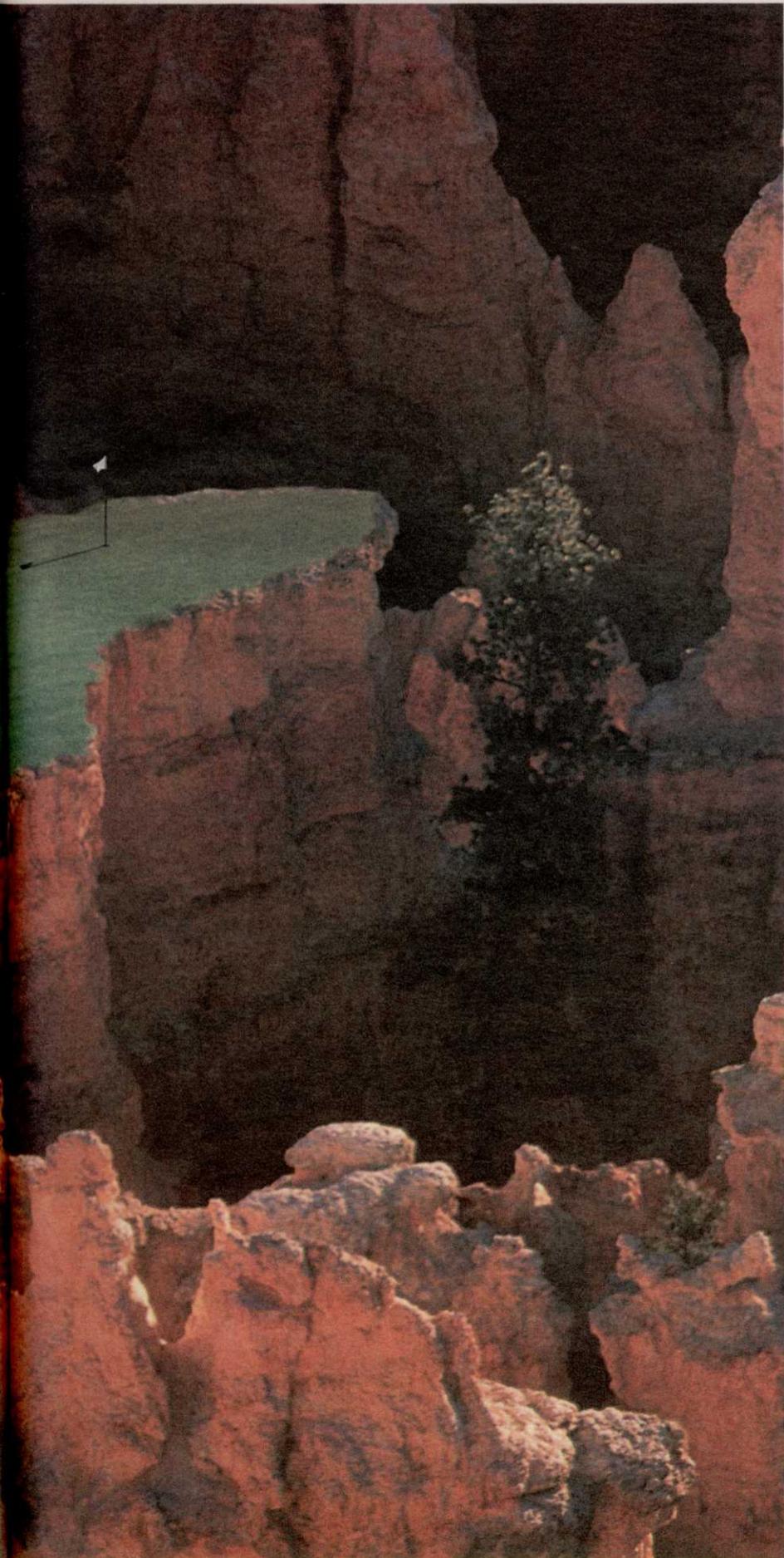
The property is owned by the federal government and controlled by the U.S. Army Corps of Engineers. In 1985, it was leased to Cobb County for 50 years with specific instructions that it be used for recreation.

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CIRCLE #116

Golf Course News is publishing these lists monthly. The chart at right is courses that have been approved around the country in the past month. The list below is sites and contacts for new courses and renovations that have been planned. When those courses are ready to begin construction they will be listed again in the approved chart.

We would appreciate your help in updating this section. To contact us call 207-846-0600 or write *Golf Course News*, P.O. Box 997, Yarmouth, Maine 04096.

Under "Type" — D= Daily Fee; P= Private; and M= Municipal.

Under "Class" — R= Regulation; E=Executive; P=Par 3.

Under "Work" — N=New; R=Renovation.

## Golf courses newly planned

Location	Contact	Location	Contact
<b>Alabama</b>		<b>Illinois</b>	
Gadsden	Mayor Steve Means	Alton	Hansen Builders, Jerseyville
<b>Arizona</b>		Carol Stream	Park Dir. Cathy Matousek
Bullhead City	Keith Foster	Charleston	Charleston CC
Scottsdale	Hadid Southwest Resort	East St. Louis	Mayor Gordon Bush
<b>California</b>		Geneva	Thomas Thornton
Auburn	Placer Cnty. Super. Planning Comm.	Gibson City	City Atty. Terry Eckhardt
Dublin	Rec. Supt. Jim Faulk	Highland Park	River Park Inc.
El Segundo	Camray Dev. Co.	McHenry	City Adm. Gerald Peterson
Elk Grove	Catellus Dev. Corp.	Morrison	Whiteside County Board
Fremont	Parks Dir. T. Goodman	Mount Pulaski	Mayor L. Montgomery
Kings County	Newhall Land & Farming Co.	Oak Lawn	Park Dist.
Los Angeles	Sutter Cnty. Plan. Comm.	Springfield	Panther Creek Dev. Corp.
Marysville	Bill De Simone	Springfield	Airport Authority
Merced	Park & Rec. Dir. George Price	Springfield	Sangamon State University
Moreno Valley	Western Industrial Group	<b>Indiana</b>	
Napa	Parks Dir. Larry Dito	Brandywine Tp.	Kenneth Bowman
Novato	Pacific New Wave Corp.	South Bend	North American Golf Inc., Chicago
Orinda	City Mgr. Al Johnson	<b>Iowa</b>	
Roseville	Land Use Mgr. Dick Bobertz	Ames	Rec. Dir. Nancy Carroll
S.J. Capistrano	Robert Roumiguere	Dubuque	Park & Rec. Comm.
San Rafael	Planning Comm.	Muscatine	Board of Supervisors
San Rafael	Unocal VP Dennis Chapman	W.Des Moines	William Knapp II
Santa Ana	Robert Trent Jones II	<b>Kansas</b>	
Santa Barbara	Pacific Atlas Mgt. Corp., Los Angeles	Johnson County	County Comm.
Simi Valley	City Council	Kansas City	Gus Fascone
Torrance	Solano Irrigation Dist.	<b>Kentucky</b>	
Vacaville	Ted Robinson	Thurston	Silas Deane
W. Sacramento	Pheasant Glen Golf Club Inc.	<b>Maryland</b>	
Woodland		Anne Arundel Cy	Dave Heckendorf
<b>Colorado</b>		Baltimore	Stephen Myer
Frederick	Mayor Ed Tagliente	Clarksburg	Dibex Inc.
Ft. Collins	Peter Hertel	N.Baltimore Cy	Robert Redcay, York, Pa.
Grand Junction	Dynamic Investments	<b>Massachusetts</b>	
Longmont	City Council	Adams	Town Adm. James Leitch
<b>Connecticut</b>		Amesbury	Town Mgr. Joseph Fahey
Ledyard	Alfred Luciani	Dracut	Arthur Kalogianis
New Britain	Parks & Rec. Dir. Peter Ledger	Hinsdale	Bas-Ridge CC
Ridgefield	Peter Friedman	Lee	First Golf Corp.
Trumbull	Tashua Knolls GC	Methuen	Community Development Council
<b>Florida</b>		Peabody	Mayor Peter Torigan
Alachua	W.D. Higginbotham	<b>Michigan</b>	
Bonita Springs	Gordon Lewis	Bedford Twp.	James Krieger
Jacksonville	Riverside Golf Group	Rothbury	Double JJ Resort
Lee County	Quail West, Ft. Myers	Ranch	City Council
Sebastian	PGA Golf Services	Taylor	City Council
Stuart	Aeroplex Int'l	<b>Minnesota</b>	
Vero Beach	Lodar Inc.	Eden Prairie	Jack Nicklaus
<b>Georgia</b>		Lakeville	Remax Real Estate, Eagan
Augusta	Lee Brandenburg, San Jose, Calif.	Shoreview	Ramsey County Board
Augusta	Bill McKettrick	St. Paul	N/A
Flowery Branch	Mayor Eugene Green	<b>Missouri</b>	
Marietta	Cobb County Comm.	Clay County	Parks Dir. John Hartman
Rome	Leon Wade	Hartman	St. Joseph
Young Harris	Mayor C. Sampson	St. Joseph	Flatt Golf Services
<b>Hawaii</b>		<b>Nebraska</b>	
Hilo	Mauna Kea Properties	Burwell	Jeff Anderson
Hilo	Kaumana Country Club Inc.	Lincoln	Rec. Dir. Bob Wright
Honolulu	Obayashi Hawaii Corp.	<b>Nevada</b>	
Honolulu	H. Horita Investments Inc.	Las Vegas	Robert Weise
Honolulu	Kabushiki Kaisha Oban	Reno	Bob Weise
Honolulu	Haseko Corp.	<b>New Jersey</b>	
Kailua-Kona	Kahala Capital Corp.	Barnsboro	Shute & Assoc.
Kaunakakai	Molokai Golf Inc.	Eatontown	N/A
Lihue	Poipulani Dev. Corp.	Egg Harbor Tp.	Mayor James McCullough
South Kona	Akahi Joint Venture	Millville	Econ. Dev. Dir. Meihale Lascarides
Waikane Valley	SMF Enterprises	Sea Isle City	City Commission
Wailuku	Sokan Hawaii Inc.	<b>New York</b>	
<b>Idaho</b>		Brunswick	Planning Board
Boise	Joan Prigge	Port Ewen	Hudson Port Ewen Assoc.
Boise	THK Assoc. Inc.	Rhinebeck	Town Supervisor Paul Ruge

## Golf courses newly approved in U.S.

Location	Course Name	Type	# holes	Class	Work	Contact
<b>Alabama</b>						
Greenville	Sunbelt Golf Complex	D	18	R	N	Robert Trent Jones Sr.
<b>California</b>						
El Segundo	El Segundo GC	M	9	R	N	Halsey Daray Golf Inc.
Palm Springs	Sun City Palm Springs	N/A	18	R	N	Del Webb Corp.
<b>Colorado</b>						
Arvada	Westwoods GC	M	18	R	N	Richard Phelps
Lakewood	Fox Hollow GC	M	18	R	N	Denis Griffiths
<b>Florida</b>						
Ocala	The CC of Ocala	P	18	R	N	Jack Clark
Port St. Lucie	Ballantrae Golf & Yacht Club	P	18	R	N	Jack Nicklaus
West Palm Beach	Okechee Park	D	27	R	N	Park Planner Wm. Wilsher
<b>Georgia</b>						
Eastman	Pine Bluff Golf & CC	N/A	18	R	N	Tim Moore
<b>Idaho</b>						
Lewiston	Clarkston's Swallow's Nest	N/A	18	R	N	Don Poe
<b>Illinois</b>						
Mt. Vernon	Rend Lake GC	D	9	R	A	Robert Trent Jones II
<b>Kentucky</b>						
Union	N/A	D	18	R	N	Michael Hurdzan
<b>Michigan</b>						
Canton	N/A	M	18	R	N	Park Dir. Michael Gouin
Romeo	The Orchards	N/A	18	R	N	Robert Trent Jones II
<b>New Mexico</b>						
Taos	Taos CC	D	18	R	N	Taos Golf Prop. Inc.
<b>New York</b>						
Farmingdale	Colonial Spring	N/A	18	R	N	Pinelawn Memorial Pk
Lancaster	Fox Valley Estates	N/A	18	R	N	Timothy Davis
<b>North Carolina</b>						
Charlotte	Waterford	N/A	18	R	N	Hale Irwin
Jacksonville	Bridgehaven GC	D	18	R	N	N/A
Monroe	Eagle Chase GC	D	18	R	N	Pres. Raymond Mullis
Wallburg	Homestead GC	D	18	R	N	Don Charles
<b>Ohio</b>						
Cadiz	N/A	N/A	18	R	N	Mayor Harold Erdos
<b>Oklahoma</b>						
Owasso	Bailey Ranch GC	M	18	R	N	Paul Clute Inc.
<b>Oregon</b>						
Bend	Broken Top	N/A	18	R	N	Jay Morrish
Florence	N/A	D	18	R	N	Rees Jones
<b>Pennsylvania</b>						
Carroll Twp.	N/A	N/A	18	R	N	Arnold Palmer
Oxford	Wyncote GC	D	N/A	R	N	Ault, Clark & Assoc.
West Chester	Radley Run CC	P	N/A	R	R	Ault, Clark & Assoc.
<b>Rhode Island</b>						
Hope Valley	N/A	D	N/A	R	N	General Prtr Hal Henry
<b>Texas</b>						
Burleson	Burleson GC	D	18	R	N	James Dobson
Fort Worth	Sycamore Creek GC	N/A	18	R	N	Park Dir. Richard Zavala
Houston	Jersey Meadows	M	9	R	A	Carlton Gipson
Houston	The Woodlands CC	N/A	9	R	A	Arnold Palmer
Jacksonville	Cherokee CC	D	9	R	N	James Dobson
Mesquite	Village Creek GC	D	18	R	N	James Dobson
Fl. Worth	Rockwood GC	D	18	R	N	James Dobson
Spring	Woodlands Inn & CC	P	N/A	R	A	Arnold Palmer
<b>Washington</b>						
Cashmere	N/A	D	9	R	N	Paul Hansen
Richland	Horn Rapids GC	M	18	R	N	William Howard Neff
<b>Wisconsin</b>						
Fond du Lac Cnty	Rolling Meadows GC	M	9	R	A	County Bd. of Supervisors

Location	Contact	Location	Contact	Location	Contact
<b>North Carolina</b>		Pocono Pines	Ed Carroll	Tyler	Park Board
Cary	SAS Institute Inc.	Reading	Western Berks Refuse Authority	Universal City	City Council
<b>North Dakota</b>		State College	Tussey Mountain Ski Area	<b>Utah</b>	
Moorhead	Fairway Architects Inc., Minneapolis		Bd. of Supervisors	N. Salt Lake	Keith Foster
Nelson County	N/A		Joseph Hardy	<b>Vermont</b>	
<b>Ohio</b>		<b>Rhode Island</b>		Jay	Jay Peak Ski Area
Huron Twp.	Thunderbird Hills GC	Richmond	Peter Hendrick	<b>Virginia</b>	
Massillon	Councilman Tom Brennan	<b>South Carolina</b>		Aylett	William Cooke
<b>Oklahoma</b>		Lady's Island	Steve Butler	Bristol	City Mgr. Paul Spangler
Stillwater	Oklahoma St. Univ.	Rock Hill	Rock Hill Econ. dev. Corp.	New Market	Shenvalee Lodge Inc.
<b>Oregon</b>		Spartanburg	City Mgr. Wayne Bowers	<b>Washington</b>	
Ashland	Dom Provost	<b>South Dakota</b>		Bellingham	Int'l Golf Mgt. Group
Astoria	PW Dir. Ben Shaw	Deadwood	Kevin Costner	Bellingham	Donovan Kehrer
Brookings	First Western Golf Assoc.	<b>Tennessee</b>		Bremerton	Rec. Dir. Vicki Vanneman
Clatsop Plains	Northwest Conference Resorts Inc.	Nashville	Metro Parks Dir. Tommy Lynch	Camas	Vanport Mfg. Inc., Boring
Deschutes Cty.	County Comm.	<b>Texas</b>		Clarkston	Port Mgr. Rick Davis
Eugene	Wildish Sand & Gravel Co.	El Paso	Gene Finke	Newcastle	International Land Group
Eugene	Lane County Comm.	Flatonina	Chamber of Comm. Pres. Calvin Kurtz	Port Angeles	Green Pointe Assoc., Seattle
Medford	Rogue Valley Manor KOGAP Mfg.	Galveston	County Beach Parks Bd. Dir. Pat Hallisey	Redmond	City Council
Medford	City Adm. H. Hartley	Houston	Jack Nicklaus	Seattle	Triad Investments
Prineville	Jim Gardner	Humble	Drago Daic Interests, Houston	<b>West Virginia</b>	
Terrebonne	John Fought	Plano	Parks Dir. Don Wendell	Mineral Wells	GCR Inc., Ft. Pierce
Woodburn		San Antonio	Powell Cos.	Weston	State Parks Comm. John Brown
<b>Pennsylvania</b>		San Antonio	United Services Automobile Assoc.	<b>Wisconsin</b>	
Danville	Jeffrey Kimssy Planning Comm.			Green Bay	Ron Kleinschmidt
Fontana	Chmn. G. Sheetz			Onalaska	Park Board
Hanover	Aim Construction Co., Finksburg, Md.			Racine	Ives Grove GC
				Waunakee	Pyramid Realty

# Japanese building binge netted 109 courses in '91

By Jillian Yorke

In spite of frequent statements to the contrary and a general pessimism regarding the Japanese economy as a whole, the number of golf courses that opened in 1991 shows the Japanese golf industry remains strong.

One hundred and nine courses opened last year, more than at any other time in Japanese history, except 1976 when 135 opened. Between 140 and 150 new courses are expected to open this year.

This is not so much a new boom in golf course construction as a reflection of the rush to build courses that began a few years ago.

According to the Japan Golf Course Association (NGK), as of March 31, 1991, there were 1,818 golf courses in Japan, while the total number of visits to golf courses during fiscal 1990 (April 1, 1990 to March 31, 1991) was 95.19 million, an increase of 5.59 million visits and 86 courses over the previous year. These figures compare with the increases of 82 courses and 7.77 million visits in fiscal 1989, a period of exceptional growth.

This means a national average of 52,361 visits per course per year, slightly higher than the 52,243 of 1989.

Prefectures reporting the biggest increases were Hokkaido (18 new courses),

*The 109 courses that opened last year is more than at any other time in Japanese history, except 1976 when 135 opened. Between 140 and 150 new courses are expected to open this year.*

Ibaraki (12), Hyogo (11), Mie (eight) and Gunma (eight).

The districts with the most visits were Chiba (6.57 million) and Hyogo (6.44 million), a predictable result, since they also have the most golf courses. Twenty-one prefectures reported a drop in the number of annual visits per course, perhaps because of the large number of newly opened courses.

Of the 109 courses, 14 are public or semi-public and 23 are designed by foreigners, including five by J. Michael Poellot, two each by Jack Nicklaus and Jim Fazio, and one each by Pete Dye, Perry Dye, Ronald Fream, Ian Baker-Finch, Hale Irwin, Karl Litten, Nancy Lopez, Johnny Miller, Desmond Muirhead, Larry Nelson, Jack Newton, Ted Robinson, Robert von Hagge and Marsh Watson.

Prolific Japanese designers are Shunsuke Kato, perhaps Japan's best active course architect, and Mitsuaki Kobayashi—both with five courses opened in 1991. Taizo Kawada designed three, while Hirochika Tomizawa, Takeaki Kaneda and Shozo Ozasa designed

two each.

Kaneda is well known as a historian, author and scholar, and was a top amateur player. Ozasa is also respected and acclaimed as a course designer. Some of the courses were designed by Japanese professional golfers, who have followed the example of their Western counterparts.

Of the 109 new courses, six are nine-holers, four are 36 holes and three are 27 holes, while the other 101 are 18-hole facilities.

Japanese golfers have to pay a tax each time they play. The total amount of golf course users' taxes paid in fiscal year 1990 was ¥90.4 billion (US\$723 million), an 18.5-percent increase—or ¥950 (\$7.60) per person per visit, an increase of 4.3 percent.

Controversial issues facing the Japanese golf industry include the growing environmental movement, fluctuations in the golf club membership market (memberships in Japan are bought and sold like shares), and continuing golf-related scandals.

Environmental groups tend to use golf courses as a scapegoat for their concerns

about the use of agricultural chemicals as a whole, which are applied far more widely in industries unrelated to golf. But nevertheless they have been effective in increasing public and industry awareness of these issues.

The membership market is currently down in value, partly because of the weakened state of the Japanese economy as a whole, and the fact that financing is generally less readily available. Although interest rates are low, banks are less willing to lend.

The Ministry of Trade and Industry has recently tightened regulations concerning the marketing and advertising of golf club memberships in an effort to improve standards. These and other regulations recently introduced by local governments are making it more difficult for golf course developers and designers to construct new courses in a creative way.

Golf Asia '92, a merchandise show being held March 26-29 in Singapore, will help highlight issues facing the golf industry throughout Asia. One exciting development is the establishment of the Asian Pacific Golf Course Superintendents Association, which is expected to take place at Golf Asia '92.

*Jillian Yorke is vice president of International Golf Research Institute and editor of Japan Golf Report, a quarterly magazine published in Shinjuku-ku, Tokyo.*

## Japanese report sheds light on golfers, courses and costs

Kenneth Leventhal & Co. has released some interesting information in its annual special report, *Golf in Japan*.

In its January 1992 update, the Los Angeles, Calif., U.S.A. firm states:

- Ninety percent of the golf courses in Japan are private in comparison to 40 percent in the United States.

- Private clubs in Japan offer memberships similar to non-equity programs found in the United States and represent a right to use and not an equity interest in the club. Therefore, the majority of clubs are owned and controlled by an outside entity and members generally do not have voting rights.

- Japanese golf clubs averaged 1,698 members in 1989, compared to 400 to 600 in the United States. "Since the majority of clubs (in Japan) are not member-owned, the number of memberships sold at a facility is controlled by the owner. There have been several cases over the last year where an owner of a club in Japan has sold many more memberships at a facility than the number of memberships represented. No checks and balances exist to control this," Kenneth Leventhal & Co. said.

- Historically, new golf course developments sold their memberships before the start of construction. However, because of the increased perception of fraud, certain prefectures are starting to restrict membership presales. While they can control only public offerings, some prefectures do not allow membership sales until construction starts and others allow presales after the entitlement process.

- Approximately 25 to 35 percent of memberships are owned by corporations, which treat them as assets and record them as investments on financial statements.

- Memberships are bought and sold on the open market. Brokerage firms in Tokyo specialize in golf memberships.

### Number of golf courses

Year	No. Courses	Additions	Percent change
1981	1,416	—	—
1982	1,419	3	0.2%
1983	1,425	6	0.4
1984	1,439	14	1.0
1985	1,469	30	2.1
1986	1,496	27	1.8
1987	1,538	42	2.8
1988	1,588	50	3.3
1989	1,640	52	3.3
1990	1,709	69	4.4
1991	1,818	109	6.3

The number of golf courses in Japan increased by 28.3 percent from 1981 to 1991.

### Membership prices

Year	Overall ave. price	Overall dollar change	Percent change
1985	\$48,000	—	—
1986	73,000	\$25,000	52.0%
1987	124,000	51,000	69.9
1988	117,000	-7,000	-5.6
1989	166,000	49,000	41.9
1990	213,000	47,000	28.3
1991	185,000	-28,000	-16.9

While the number of golf courses and golf rounds per course have increased, the price of golf memberships in Japan has dramatically increased from 1985 through 1990.

Kenneth Leventhal & Co. surveyed 665 clubs in the Kantou, Chubu and Kansai regions of Japan to assess the current and historical membership prices.

Overall, membership prices increased from 1985 through 1990, growing at a compound annual rate of 34.7 percent, then dropped 16.9 percent from the end of 1990 through last August.

Membership prices in Japan vary from less than \$50,000 to more than \$1 million.

### Rounds played per course

Year	No. courses	No. rounds	Rounds per course	Percent change
1981	1,416	54.0M	38,135	—
1982	1,419	59.2M	41,720	9.4%
1983	1,425	64.4M	45,193	8.3
1984	1,439	63.3M	43,989	-2.7
1985	1,469	66.9M	45,541	3.5
1986	1,496	68.2M	45,588	0.1
1987	1,538	72.3M	47,009	3.1
1988	1,588	77.6M	48,866	4.0
1989	1,640	82.2M	50,122	2.3
1990	1,709	89.6M	52,243	4.2
1991	1,818	95.2M	52,365	0.2

Golf rounds per golf course in Japan increased by 37.3 percent between 1981 and 1991. Japanese golf courses experience some seasonality because of inclement weather in December, January and February in the southern part of the country, where courses generally stay open year round.

### Number of rounds played

Year	No. rds. yearly	Additional rounds	Percent change
1981	54M	N/A	N/A
1982	59.2M	5.2M	9.6%
1983	64.4M	5.2M	8.8
1984	63.3M	-1.1M	-1.7
1985	66.9M	3.6M	5.7
1986	68.2M	1.3M	1.9
1987	72.3M	4.1M	6.0
1988	77.6M	5.3M	7.3
1989	82.2M	4.6M	6.0
1990	89.6M	7.4M	9.0
1991	95.2M	5.6M	6.0

Golf rounds in Japan increased by 76 percent from 1981 to 1991. Golf rounds appear to have grown faster than the number of golf facilities.

Sources: *Golf Business Club Year Book 1990; Golf Tokushin 1991; Kenneth Leventhal & Co.; International Golf Research Institute.*

- A purchaser of a golf membership is typically entitled to receive back between 85 and 90 percent of the original initiation fee at some future time.

- Construction of an 18-hole championship golf course costs between \$2 million and \$10 million per hole in Japan, not including land. Construction takes about two to three years because of seasonality. Construction costs have escalated in recent years because of the characteristics of development sites, which are usually mountainous.

Leventhal said: "Future golf course development is expected to be constrained by the prohibitively high cost of land and the availability of developable sites... Approximately 75 percent of Japan is mountainous. Therefore, land suitable for golf course development is scarce."

The research firm added: "Golf courses in Japan have historically been financed primarily by membership sales while financial institutions provided the remaining capital. The typical golf course development in Japan was constructed with the proceeds from membership sales. Up to 100-percent financing from banks in Japan was historically available for the purchase of golf memberships. The historical financing environment was conducive to promoting golf development."

But that financing environment has changed, Leventhal reported.

"Membership presales activity is now regulated by prefectures. Some prefectures have no restrictions on membership presales activity, while others do not allow developers to market memberships until construction ends. While membership presales activity has been regulated, financial institutions are not filling the void left from membership presales," Leventhal said. "Japanese financial institutions are no longer providing significant golf development financing, either for development or membership sales."

# Tiny island of Guam bursting with

By Peter Blais

Imagine a tropical paradise where there are just a handful of golf courses, it takes less than a year to get construction permits, and the number of wealthy foreign visitors is expected to double in the next three years.

Where is the other end of that rainbow? In a little U.S. territory called Guam.

Located just two jet-hours from Tokyo, less than half the time it takes to reach Hawaii, the largest of the Mariana Islands is one of the hottest golf course development properties in the world. The number of courses is expected to double within the next year and could quintuple by the mid-1990s.

"It's one of four areas in the world (the U.S. Southwest, Mexico and the Caribbean are the others) we see as having significant opportunity for development. It's primarily a resort for the Japanese, with potential for the Chinese and Koreans," said Paul DeMyer, national director of consulting services for the accounting firm Kenneth Leventhal & Co., publishers of the International Resort Industry Report.

Guam is the largest and southernmost island in the Mariana Archipelago, lying 1,500 miles southeast of Tokyo, according to the report. It is roughly 30 miles long and ranges from five to 8-1/2 miles wide. A resident population of 135,000 is scattered over its 209 square miles.

Other large islands include Saipan, Rota and Tinian. Guam and Saipan are the most economically developed. Rota and Tinian are eager to attract new developments.

With Guam's small resident population, "Everything is geared toward the visitor market," DeMyer said.

Tourism is an important, though relatively young, industry. The first commercial flight arrived in May 1967.

Attracted by its proximity to Tokyo, Hawaiian-like temperatures, generally lower prices and accessibility of American goods and customs, visitor arrivals have increased 9.3 per-



Golf course designer Robin Nelson tests the tee placement for the 168-yard 12th hole at Mangilao Golf Course in Guam. He believes it will be one of the great ocean holes in the world.

cent annually since 1980. The 780,000 visits in 1990 were up 17 percent from a year earlier. Ninety percent were Japanese, most on wholesale tour operator packages.

South Korea will likely become another major source of tourists with the Korean government's decision to issue a Guam-only visa. Guam's plans for an airport terminal expansion and expected increases in direct air service will also bolster the tourist market.

Lodging has been in short supply. Guam ranked 15th out of the 16 resort markets surveyed in number of rooms. The 95-percent occupancy rate, the highest of any resort market, reflects the need for more lodging facilities.

The situation is changing, however. Total hotel rooms doubled to about 5,100 in the past five years. It could double again in the next five as eight planned "mega resorts" come on line. The Guam Department of Commerce reports approvals for 8,156 new hotel rooms. An additional 5,952 rooms are

proposed or rumored. The new rooms are expected to double the number of visitors to 1.5 million by 1993.

While Guam's traditionally lower room rates (averaging \$95 per day) than Hawaii (\$135 daily) have attracted less-affluent Japanese, the new high-quality facilities could change the island's character from a lower-cost weekend alternative for Japanese tourists to a world-class destination resort.

Accompanying the shortage of hotel rooms is a lack of golf courses. Guam has just three courses (not counting two military facilities). Three more are under construction and expected to open within a year. Another four have been approved and four more are pending approval.

Following is a breakdown of existing courses and new developments provided by Kenneth Leventhal & Co. representatives.

#### EXISTING COURSES

*Hatsuho International Country Club* — A

27-hole, semi-private course opened in 1987 in the northern town of Dededo. The architect is Chohei Miyazaya of Japan. A 62-room hotel is scheduled for completion this year.

"The best example of international memberships on Guam," DeMyer said of the resort. The club sold 2,500 memberships at \$71,500 apiece. Members pay \$30 greens fees, guests \$90-125.

*Country Club of the Pacific* — Located on the southeast side of the island, it is the only course with ocean views. Membership is limited to residents and U.S. citizens at the 18-hole, semi-private club. Memberships cost \$750 and there is a waiting list of 200. Greens fees are \$80 to \$110, including a cart.

The course installed an irrigation system last year after almost losing all its turf on several occasions. Seizo Tomizawa is the course architect.

*Guam Takayama Golf Club* — An 18-hole course near Country Club of the Pacific, the Gene Hallbrook-designed facility became the first public course when it opened in 1965. Greens fees are \$57 to \$67. The heavy clay soil holds water and well-struck balls have been known to disappear into two inches of muck during the July through December rainy season, DeMyer said.

"The three existing courses each average 50,000 rounds annually and turn away many people," said Mike Zmetrovich, a Kenneth Leventhal associate.

#### UNDER CONSTRUCTION

*Guam International Country Club* — A joint venture between a Japanese company and a local businessman, the 18-hole course in Dededo was scheduled to open late last year. Developers are trying to sell 1,500 Phase I memberships at \$14,000 apiece. Another 800 Phase II memberships will eventually be sold for around \$54,000 each.

*Guam (Mangilao) Golf Course* — The 18-hole course is part of a Nikko Hotel complex in Mangilao. Approximately 1,800 Japanese

Continued on page 31

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CIRCLE #118

# new courses from stem to stern

Continued from page 30

memberships are fetching between \$143,000 and \$179,000 apiece. The architects are Robin Nelson and Rodney Wright.

**Leopalace Resort** — Forty-five holes are planned with 27 Jack Nicklaus- and Arnold Palmer-designed holes currently under construction. The first 18 are scheduled to open in June. The private club surrounds a 190-room hotel. A successful pre-sale program has helped move many of the 4,500 international memberships, which are selling for more than \$150,000 apiece.

"The slowing economy in Japan doesn't seem to be affecting membership sales at the new courses. Hatsuho sold 600 memberships in 1990," DeMyer said.

Another four projects totaling 108 holes — three 18-hole and one 54-hole facility — have been approved, but are not yet under construction. Four more 18-holers are pending approval.

"Many other people are interested in building," DeMyer said. "Land prices shot up in the last eight years, but things have stabilized lately."

Existing courses generally don't have hotels or residences associated with them. Most new courses, on the other hand, are part of mixed-use projects, including homes and hotels, DeMyer said.

Most of the easily developed sites are already taken, DeMyer said. The infrastructure to support new projects is not usually available. Developers have had to pick up the tab to install roads, water lines, sewage facilities and the like.

Consequently, the review process for new projects (which must be presented to the local and territorial planning commissions as well as the territorial governor) takes longer to complete, closer to a year rather than the six months it formerly required, he added.

Developers must also deal with the U.S. Army Corps of Engineers because of wetlands at many sites, according to Stanton Abrams, president of Senior Tour Players Inc., which represents many of the Senior players contributing to the design of a course planned at Talofof.

Construction costs are double those in the continental United States, DeMyer said. Construction materials and expertise must be imported. Many sites require blasting and extensive earth-moving.

The island is made up largely of coral, with little topsoil and large clay deposits, said Nelson, who, in addition to Mangilao, is involved with two other Guam projects.

The south and east shores, in particular, are thrashed by occasional typhoon winds. Few big trees remain and telephone poles are made of concrete six feet in circumference to withstand the winds, Nelson said. When the typhoons leave, the weather turns hot and dry.

Nelson planted hybrid Bermudagrass imported from Georgia, U.S.A., at Mangilao. Water can be scarce. Extremely deep wells were needed at Mangilao, he said.

Despite the difficulties of building, the results can be spectacular. Mangilao winds its way through natural limestone forests, dips down to the ocean and finally makes its way back through lush jungle elevation to a clubhouse overlooking

the blue Pacific.

Nelson's favorite hole on the "out nine" is a short par-5 tucked against a coral cliff to the left and sandwiched between bunkers and coconut palms to the right.

The back nine features two magnificent ocean holes, Nelson said. The 12th hole is a par-3 with a complete water carry over a beautiful inlet with crashing waves. The 13th is a short par-5 reminiscent of the 18th at Pebble Beach, he added.

Designing primarily for the Japanese generally requires a long and wide course that challenges the low-handicapper, but is playable for the beginner, Nelson said. Water, flowers and ornamentals are also a must.

"They want the course to be aesthetically pleasing," Nelson said.

One problem facing developers is a looming labor shortage. Guam ended 1989 with a 2.1-percent unemployment rate, the Kenneth Leventhal report states.

Time and money will be needed to develop, house and train an adequate labor pool drawn from other nearby Micronesian islands.

The dependence on Japanese visitors could also prove costly if there is a significant downturn in the Japanese economy that impacts foreign travel, the report adds. Encouraging visitors from other Pacific Rim countries, like South Korea, will help lessen the island's dependence on Japan.

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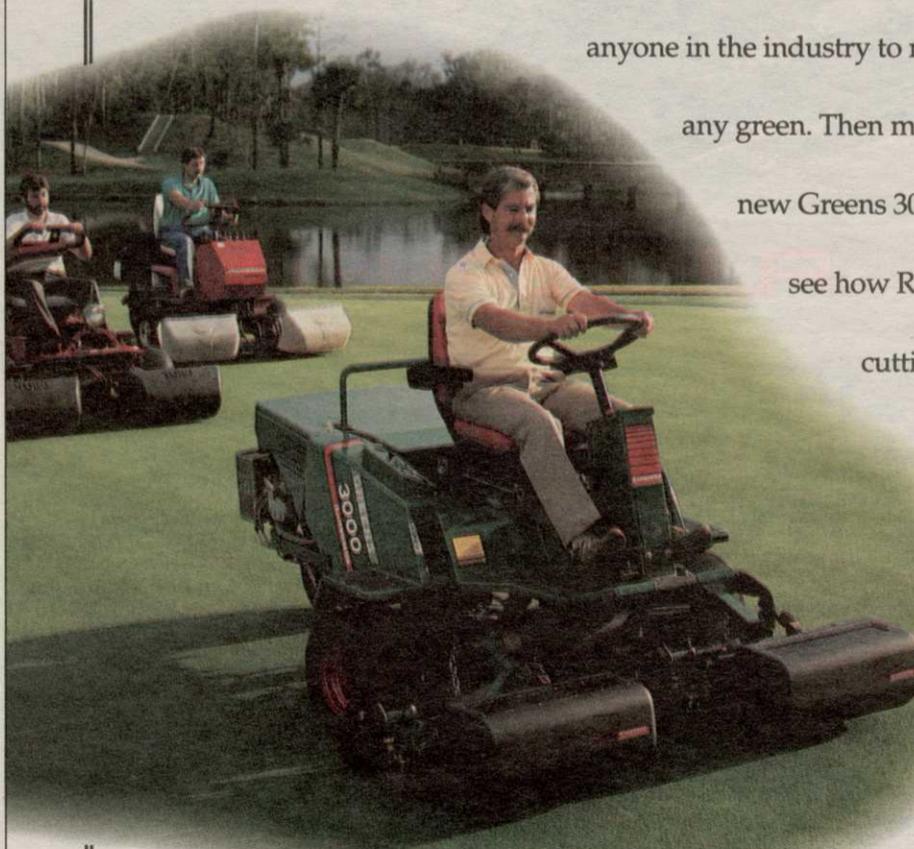
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# Even Korean DMZ is a golf project site

By Curt Sampson

As the worldwide golf boom collided with rapidly changing world politics, one result has been golf course construction in some unlikely places. Today you can tee it up in current or former communist enclaves like China, Czechoslovakia and Russia. Thailand, in the center of Southeast Asia, the most troubled region on Earth 20 years ago, is a wash in new golf resorts.

South Korea is another country with an unexpectedly vibrant golf economy. Korea and Germany virtually defined Cold War, two countries that were torn in half after World War II. Although Korea has not reunited as did Germany in 1991, golf entrepreneurs there charge ahead. There are about 60 golf courses in the Land of the Morning Calm and another 120 under construction or in the final planning stages. All these facilities are in the South. Communist North Korea

has not yet discovered golf.

South Korea's rising prosperity and growing middle class fuel the expansion, but an equally important factor is Japan. The golf-hungry Japanese are short on places to play and room to build in their own country. But they are not short of money, and Korea is only a one- to two-hour flight from anywhere in the country.

Practically all Korean golf courses are located well south of Seoul, even though most of the country's popula-

tion and its most interesting potential golf course sites are in the north. Developers have avoided the region because of the Demilitarized Zone.

The DMZ scares people. The 600-mile-long, 2-1/2-mile-wide buffer between North and South Korea was put in place at the conclusion of the Korean War in 1953, and has been the most unfriendly, most heavily defended border on Earth ever since.

No one has thought to build a golf course anywhere near the DMZ —

until now.

In perhaps the purest expression of Korean optimism about golf and the future, Dong Woo Co., Ltd., of Seoul is building a monumental 36-hole golf/tennis resort just 14 kilometers from the border. It will be called Long Lake Hill Country Club, after a nearby lake (San Jong Hosoo) of the same name.

It could be the most expensive golf course ever built, possibly reaching \$130 million. It also could be among the most spectacular new courses in the world. Long Lake Hill covers 800 acres of rugged hilltops adjacent to Myung Sung Mountain. The breathtaking views are reminiscent of the French Alps or Canadian Rockies.

The sheer scale of the project is staggering. When construction began in August 1990, a 60-man dynamite crew worked around the clock for weeks, blasting out granite outcroppings and bedrock.

An unheard-of 25 million cubic yards of dirt were cut, filled and pushed to form the course's basic form.

Although golf course architects in Japan are moving more and more earth nowadays on the unfarmable tracts they are given to work with, rarely does the amount exceed 3 million cubic yards. It costs about US\$3 to move a cubic yard of dirt — thus Long Lake Hill's great expense.

Then there are the hundreds of Surak Mountain pines that are being trucked in to transplant, at about US\$5,000 apiece; the miles of six-foot-diameter box culvert buried under the course to handle the runoff from melting mountain snow; and the cable car that will run from the 18th green to the clubhouse.

"It's the greatest feat of golf course engineering ever attempted," said American golf course critic John Strawn.

"The goal is to build the world's first great mountain golf course," said Desmond Muirhead, who designed Long Lake Hill. Only time will tell if the goal is achieved, but Muirhead has built immortal golf courses before — New St. Andrews, Wakagi and Shinyo in Japan and Mission Hills and Muirfield Village in the United States.

The mastermind of this project is Jong Shin Kim, president of Dong Woo. He conceived the project in 1988, recruited the other main owners (Baek Sung Kwan, Hwang Jin Chul and Kim Yun Dong), bought the land, and hired Muirhead and construction manager Yung Mok Choi.

Kim, 50, was born in North Korea but fled to the south with his family at age 9. He was twice the All-Korea taekwondo heavyweight champion and is a combat veteran of the war in Vietnam. Like his partners in Dong Woo, Kim made his fortune in the construction industry.

He is used to taking chances and winning. With a recent dramatic thaw in the relationship between North and South Korea, his idea of locating a golf resort near the border may be genius.

But would he do it again?

"No-o-o," he says, with a weary smile. "That is like asking a pregnant woman if she will have another baby."

GOLF COURSE NEWS



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# Mining for golfing treasure in Malaysia

By Brad Klein

The Malaysian town of Kajang is a ramshackle stretch of two-story wooden structures that seem to teeter on the brink of collapse. Everyone, it seems, travels on a bicycle or on one of those little two-stroke motorcycles. The local version of fast food is "satay," a sizzling skewer of pungent chicken, lamb or beef cooked in sidewalk stalls. The weather is usually hot and steamy, and a foreigner walking down the crowded streets cannot help but feel like the man who has just lost his American Express card.

If the sights and sounds are familiar, that's because visitors have encountered them before in films and spy novels about Southeast Asia. Yet this time, the attraction is not war but golf course development. A new project, called The Mines Resort, is underway 12 miles to the north, on the outskirts of Malaysia's capital city, Kuala Lumpur.

The brainchild behind The Mines is Lee Kim Yew, a 39-year-old native of Kuala Lumpur who serves as managing director of the project. Soft-spoken yet hard-driving, he has a clear vision of future goals and surrounds himself with people who will get the job done right. His two assistants, marketing manager C.S. Ong and project manager T.G. Ng, are constantly at his side and meticulous in their attention to detail.

To date, their major success has been Country Heights, a 57-acre comprehensive residential and recreational community, nearby to The Mines. Country Heights is a pricey development, replete with its own shops, equestrian quarters, and a World Tennis Centre featuring a 1,500-seat stadium and Asia's first Rebound Ace court surfaces.

Since Malaysia is a country where the newly emergent elite are highly protective of their status, one of Country Heights' selling points is the constant presence of armed security guards. Apparently, this helps the residents feel safe. But then special care needs to be taken, since the choicest homesite of all belongs to the prime minister. His presence is one of many indications that Lee is politically well-connected and moves among influential circles.

Two miles north of Country Heights, virtually adjacent to a new horse-racing track that is now going up, is the 900-acre site destined for The Mines.

For years the site served as one of the country's largest tin mines. An abandoned open-cast mine that was left behind is now a 154-acre, 500-foot-deep lake. Several other ponds dot the property. The subsurface is a combination of limestone, sandstone and clay. Elevation changes by 150 feet, much of it on bluffs that overlook the lake that will be the centerpiece of the project.

Lee, who is not a golfer, decided to hire Robert Trent Jones Jr. after

he had a look at Joondalup, north of Perth in Western Australia. "That Joondalup is a beautiful course," said Lee. "I like it because Mr. Jones built it through the canyons and ravines of an abandoned quarry. We also have a quarry, but The Mines is more dramatic."

Don Knott, the lead designer for "Bobby" Jones on Joondalup, will take on the same responsibilities for The Mines.

"The site itself is unique," said Knott. "With its significant elevation changes on a bluff above that massive lake, there's the chance there to build an Asian version of Pebble Beach."

Knott estimates that excavation of the cast mine involved the removal, over many years, of 100 million cubic yards of earth. "About a quarter of that is stockpiled on the site right now, and we plan to use much of that material for our contour work."

Some 2.2 million cubic yards of dirt will be moved, and construction costs for the par-71, 6,820-yard layout should come to about \$10 million.

The front nine, routed around a large hill, cuts through wetlands and sparse woods. The holes gradually climb until, at the 9th tee, the golfer finds himself at the highest point of the property, 120 feet above the lake.

The back nine snakes along the eastern bank of the lake. The 396-yard 10th hole will run along a bluff overlooking the water on the left. Eleven, a 550-yard par 5, sits closer astride the lake and incorporates the water along the near side of the dogleg left.

After a loop of holes at the northern end of the course, the 319-yard



Above is a view to the north along the edge of the water-filled abandoned tin mine, site of The Mines Resort in Kuala Lumpur, Malaysia. Photo courtesy of Robert Trent Jones II International

15th and the 192-yard 16th will play close to the water's edge on the right side. The golf course finishes with the 524-yard 17th and the 423-yard 18th perched on a second tier of the quarry-like cliffs, affording golfers a generous view of the whole site.

The full-time field supervisor is Glen Nickles, from Greenscape, Ltd., the affiliated construction division of Robert Trent Jones II International. Nickles will oversee every step of the building process, from clearing to cut and fill and final shaping.

Administration is being managed by Al Furber, who as Jones' chief of Asian operations has worked with

the company on more than 30 projects throughout the region.

Construction, already underway, should take about 18 months. Plans call for hybrid Bermudagrass fairways, and Tiftwarf Bermudagrass greens and tees. Ornamental lovegrasses will add texture and highlight the bluffs.

With any luck, the first official tee shot should be struck in early 1994.

Lee has ambitious plans to develop the surrounding property. Jeff Feilman, the Australian-based land planner who worked on Joondalup, has been retained to integrate housing, hotel, roads and other infrastructure. The clubhouse, always a spectacular undertaking in Asia,

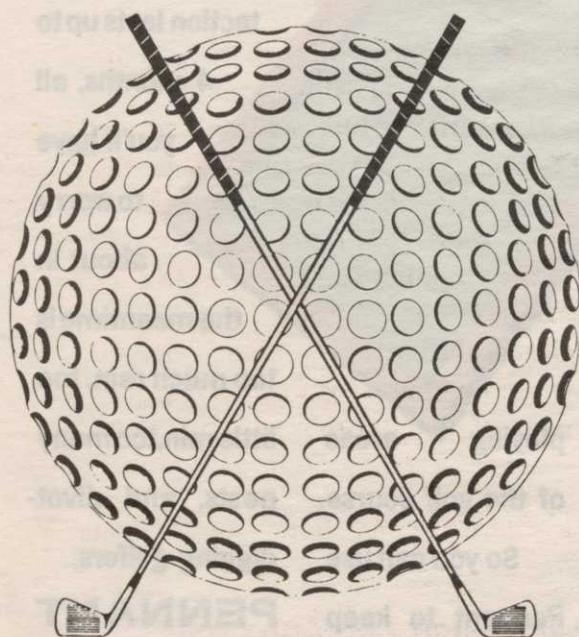
has been assigned to Parisian architect Philip Stark.

To show he's serious about the golfing, Lee traveled in April 1991 to the Golf Asia '91 show in Singapore and came back with \$50,000 worth of antique clubs and balls. Back in his office at Country Heights the next day, he got on the phone to track down an interior designer who would build a suitable display case for the golf artifacts.

Only one problem remains, Lee admits. "The site is big enough for 36 holes. Who should I get to do the other 18?"

A visitor suggests Rees Jones. Lee calls out to Ng: "Make a note of that name. Maybe I call him."

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# Inexperience brings odd attempts at disease cures

By Vern Putney

The absence of local agronomy expertise has led to strange maintenance practices and a learn-as-you-go attitude in Asia, according to turfgrass and agronomy expert Neil Noble.

Noble has encountered the bizarre in his travels the last few years, first as director of turfgrass for Dye Designs International and now as president of Environmental Turfgrass Systems,

Inc. in Honolulu, Hawaii, U.S.A.

"Many of the newer courses have tried to import grasses, construction and maintenance techniques from the United States only to see them fail," he said. "I visited one greenskeeper who had read in an American turfgrass text that frequent top dressing would improve putting greens. He top dressed his greens heavily every week. After a short time, he had completely buried the grass. Only the tips of the grass blades were visible."

"There also is the idea that if a 10-

inch per hour percolation rate is good for greens in California or Arizona, a 50-inch percolation rate would be most suitable for Indonesia, since it receives five times the precipitation," Noble added. "The result in this case was putting greens that did not hold enough moisture in the rootzone to get through one day of evapotranspiration. The sand held no nutrients, as the huge quantities of irrigation water needed to keep the grass alive also leached the applied nutrients from the rootzone."

He said: "There is a real low level of expertise. People play here and want to develop their golf courses in Indonesia and Asia. But there is no one with a background in growing grass."

Hybrid Bermudagrasses are being sold to these new golf developments, he said, "without any information as to how they differ from the native 'grasses.' Again, the result is failure or at least less-than-expected results."

#### GRASSES SITE-SPECIFIC

He said seed companies, without

any concept of the climate, are selling cool-season grasses in Taiwan.

"It's real site-specific — with microclimates everywhere — in Japan and Korea. But in Thailand, Taiwan, Malaysia, Indonesia and Singapore, zoysiagrass and Bermudagrass are about all you see," he said.

Noble, who has lived and worked in Japan for three years, sees greater future opportunities for foreign companies in Singapore, Thailand, Malaysia, Indonesia and Guam.

While less developed than Japan, these countries are much easier to work in, he said, "partly because of protectionism in Japan and the fact that Singapore business can readily be done in English."

He cited a great need for the expertise of American contractors to fill the needs of a course construction boom.

"Draw a 500-mile circle around Singapore and there is a 500-course potential," he said. "Probably 200 will be built in the next four or five years. Thailand went from zero to 50 courses in construction in two years."

"The islands in Asia have six, eight, 10 courses in play or under construction on each one. The Japanese who can't afford to build in Japan or Hawaii go to Indonesia and buy half an island, build a resort and two golf courses for half the cost of building 18 holes in Japan."

Yet, although there are tremendous opportunities to design, build, and sell products and services in this region, there are pitfalls.

Golf course architects, fertilizer and chemical suppliers, irrigation designers, equipment and product suppliers must address "how their products and services fit into new cultures and climates," Noble said. "Nowhere in the United States, for instance, are there monsoons or regular three-inch per hour rainstorms; and few places have volcanic soils."

#### LOCAL EPAS

Noble said new government environmental agencies are starting to affect development.

The new Environmental Protection Agency in Taiwan recently announced it was going to begin monitoring golf course maintenance practices in the drinking watershed areas, and if they were found to be contributing substantially to pollution, they would be closed.

This agency also recommended that no new courses should be developed in the watershed areas, a decision that "is having a big impact as there are developers planning courses in those areas," Noble said.

Concern over ground water has the Guam EPA "leaning toward required ground- and surface-water monitoring for new courses that is estimated to cost nearly \$1 million per course per year," he said. "This cost, if enforced, is more than enough to stop development of several new courses."

As a result of that Guam action, a group of planners and developers have asked Noble to help them devise plans

Continued on page 35

GOLF COURSE NEWS

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From wetland to country club, American architect Gary Roger Baird made magnificent use of his design skills and the construction know-how of developers of The Royal Gems Golf and Sports Complex in Bangkok, Thailand. An 11-foot-high levee needed to be built around the property and the land was drained before construction could begin on the \$100-million project. Baird said 75 laborers worked four months hand-laying the stonework in the double-tiered sand bunkers.

Photos Courtesy of Gary Roger Baird Design International, Ltd.



## Wetlands areas no issue where monsoon season strikes

By Mark Leslie

BANGKOK, Thailand — Wetlands may be an environmental obstacle for golf course development in the United States, but not so in Thailand, according to architect Gary Roger Baird of Memphis, Tennessee, U.S.A.

Baird says Thailand is concerned, rather, with developers "randomly cutting into its hardwood forests."

While confrontations take place over the valued forests, wetlands abound in the monsoon region and a golf course only enhances the value of the land.

Baird was involved in a major case in point — the \$100-million Royal Gems Golf and Sports Complex in western Bangkok. Built on a site that was once mostly under

water, Royal Gems officially opened last Dec. 21 and has already hosted the Asian Women's Championship and is being hailed as perhaps the best course in Bangkok.

Baird said the site is 1-1/2 miles long and about 500 yards wide. The first phase of preparation was to build a levee three meters (10 feet) tall around the entire project. That protected the property from flooding when the monsoons hit.

The property was drained of water by 8,000-gallon-per-minute pumps placed at each corner of the site. Four to five months of tedium followed as wide-track tractors peeled off the earth a little at a time to dry it out and allow rough earthwork to be

done.

The 200-acre golf course was then built so all fairways would drain into the 40 acres of lakes within the course.

Baird says the special preparation and work paid off. The course is under consideration for World Cup play. And the rest of the development is special to behold.

Waterfalls are everywhere, he said, and

plans call for 260 homesites, four towers of condominiums, a 100-room hotel, 110-square-foot clubhouse, two restaurants, an observatory tower, conference center with library, and a ballroom that seats 350.

For athletes, the project boasts a 100-meter pool, jogging track, aerobics center, tennis courts, snooker, billiards, and much more, including 24-hour medical aid.

## Inexperience means odd cures

Continued from page 34

that would reduce chemical use and justify less intensive pesticide monitoring.

"The biggest concern is to help the Guam EPA identify and recognize all the potential

chemical use mitigation practices available to reduce chemical use, then cut the monitoring requirements accordingly for the developers who implement the reduced chemical use practices," Noble said.

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# Pitfalls, rewards await American golf

By Bob Spiwak

Golf is booming through out Asia. As new courses are contemplated, planned, designed and built, American architects more and more are getting the call to bring their artistry across the Pacific.

Heady stuff, exotic names. Have you heard of the Sultan of Brunei? Ron Fream has. He built a course for the reputed "richest man in the world" on his oil-rich enclave on the island of Borneo. Fream, of Golfplan in Santa Rosa, Calif., has been designing and building courses in Asia since mid-1972.

He reckons that after Robert Trent Jones Sr., his is one of the first modern American companies to design a course in Asia. And in the succeeding decades most of his work has been "centered" there.

While proclaiming no favorite country, Fream finds Japan easiest in which to work. "It's (working conditions) almost like America and I get an immense amount of satisfaction educating the workers," he said.

Ron Garl, an architect from Lakeland, Fla., is working in Thailand and Singapore. He seems especially taken with the Thais, whom he portrays as "...wonderful, marvelous people."

Garl is a relative newcomer to Asia, with his first job there less than two years ago.

Thailand has been good for Jack Nicklaus Golf Services as well, says General Manager Mark Hesemann, citing 11 jobs in 18 months. With Japan as its first Asian location, the Nicklaus company went next to Indonesia, then Thailand.

A major difference between working in the United States or Japan and the other Pacific Rim countries is the problem getting from place to place.

"Getting in and out is difficult," Hesemann said, adding, "The distances from project to project can be a problem."

For Damion Pascuzzo, senior associate of Robert Muir Graves at Walnut Creek, Calif., the major problem is local availability of materials.

"One of the toughest things is adapting materials to the standards that have been set. We roll with the punches and do the best with what we can get," he said. The Graves organization first entered the Asian market 15 years ago. The firm has built two courses in Malaysia, lists a half dozen in Japan built or in planning, and has a course under construction on Guam.

Palmer Course Design Co. has been across the Pacific since 1971, with the first course in Japan.

Vice President and senior golf course architect Harrison Minchew said Japan has far and away the toughest environmental regulations.

"In Japan we are required to leave a 30-meter buffer of existing trees

between the fairways. The retention lakes we build cannot have water in them, except when it rains," he said.

Fream agrees. Japan is (environmentally) leading the world out of necessity. It is learning from its mistakes, and the rest of Asia is getting more environmentally aware."

Hesemann called Japan's regulations "...the toughest in the world." Like his colleagues, he finds the

Southeast Asian nations more reasonable.

Outside of Japan, hundreds of hand laborers rather than machines are used in many areas of construction and maintenance.

Pascuzzo said: "They have such a large labor force. What we would do mechanically they do manually. Things like seeding, and picking rocks."

There appears consensus that in Thailand and Malaysia, for example,

laborers work for about 35 cents an hour. Five dollars a day is considered a good wage.

Hesemann thinks that after China, Indonesia is the most labor-intensive country. He cites "a hundred, 150 laborers doing day-to-day maintenance."

For Fream and Garl, the labor intensity takes on a philosophical, if not ethical, complexion.

Fream said: "I find it socially desirable to have hand labor. We'll

take 100 or 200 people with shovels, or Bedouins behind a camel pulling a plow and give them work they would not have otherwise... You're putting people out of work if you use machinery (where hand labor can do the job).

"It is harder than working in the States."

In the United States, architects and builders are spoiled, Fream said, adding, "Everything you want is just a phone call away."

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# course architects in Asian countries

Garl considers the Thai people "very good at earthwork and construction. There are so many available for work, even at \$3 to \$5 a day," he said, adding that the local people are lacking experience in finishing, shaping and irrigation.

"We bring in our own shapers from the States and train the locals to be shapers... That's part of what we think we owe golf. We have an obligation to the people to teach them how to construct for future

projects in their countries."

The Japanese attitude toward golf courses differs from others', said Pascuzzo, in looking at a course as "... something to be savored, an all-day experience.

"In Japan it seems they are more interested in ornamental landscapes. They have great detail in their water features."

Hesemann admires the maintenance quality of Japan's courses. "In Japan," he noted, "the courses are

(maintained) like gardens."

Southeast Asian countries lack the experience in maintenance and Hesemann characterized them as "being in the 1930s or '40s in their perception of turf quality."

But as more courses are built, they will learn, he said.

In terms of activity, nothing, according to the architects, is stalled. But there is consensus that Japan is slowing down. This is attributed to greater environmental pressures,

especially in some prefectures, a fear of a lessening of traditional cultural values, a limited amount of land, and financial reasons.

Among the financial changes, according to Minchew, the government has now disallowed sale of course memberships until the course is actually built. In the past, memberships were bought and traded before construction even began. As memberships are traded on the Nikkei, or Japanese stock

exchange, without the initial infusion of venture capital, owners are not readily able to raise money.

The hot spots of activity seem to be centered in Southeast Asia. Thailand, Malaysia, Singapore and Indonesia are the leaders.

Pascuzzo pointed out that these countries are a one- or two-hour flight from Tokyo, less from Osaka.

He explained that the Japanese may well ask, "Why should we develop (golf courses) on agricultural or mountain land when golf is so accessible in nearby countries?"

Taiwan, Vietnam, Korea and the Philippines are on the move in developing golf, and several architects mentioned Guam.

On Mainland China, Chung Shan Hot Springs Golf Club was completed by the Nicklaus group last year, adding 18 holes to a pre-existing 18 designed by Arnold Palmer.

Working with course builders does not seem to create any major difficulties.

There seems a greater language barrier in Japan than the neighboring nations. But the latter, according to Fream, "...don't have experienced course builders. They (builders) are road and dam contractors."

Fream feels that going into the job with the expectation that he will be dealing with different religions, ethics and social customs from those in America makes it easier. "You have to react to, and deal with, the local facts of life," he said.

Nicklaus, Garl and Graves bring in American shapers. For the Palmer organization, Minchew said the owners of the courses hire the construction company.

"In the last 10 years we have worked with one company which is as good as anybody in the world," he said. "We design the course, the owner hires the (construction) company, which does everything from A to Z."

## USGA-SPEC GREENS

The greatest disparity among this group of architects is in the realm of official United States Golf Association-specified greens construction.

Last July, Turfgrass Scientific Services, Ltd. of Australia issued a memo to a course builder advising "... virtually every (USGA) green amended with peat has been dug out within five years of construction and replaced with pure sand."

Graves stated: "The only time we don't adhere to USGA greens is when there is a supply of exactly the right sand... We just do it by the book and if we can't get the proper sand, we go to them (USGA) and they work with us."

At the other end of the spectrum is Fream, who said: "I don't follow the USGA specs. We use the local materials from pig manure, rice husks or crushed olive pits to ground bark. It's not necessary to

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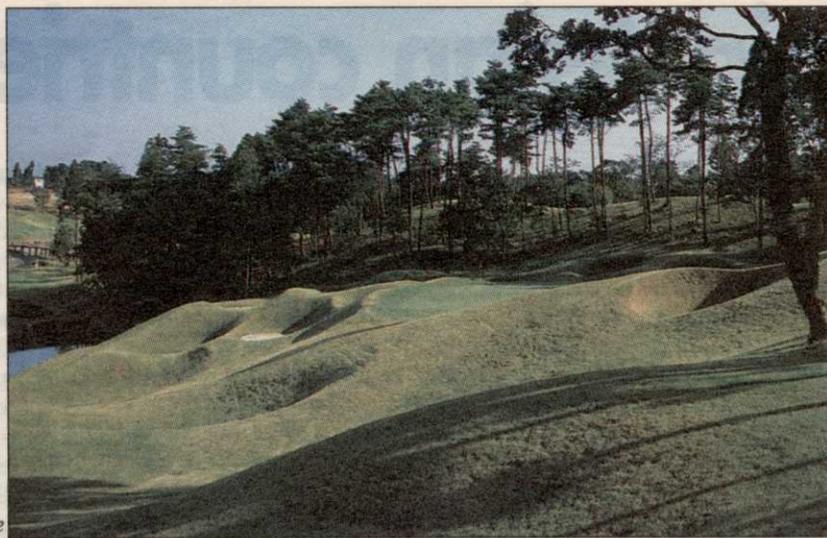
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The 8th hole at Glenmoor Country Club in Japan's Chiba Prefecture shows the handiwork of designer-builder Perry Dye of Dye Designs International in Denver, Colo.

Photo by J. Pettibone

## American golf course architects designing more projects in Asia

Continued from page 37

follow the so-called USGA bible."

Minchew said: "We pretty much stick to USGA specs for greens ... or at least 'modified' USGA specs."

He sees this as a necessity to avoid later disputes and being accused of not following the specifications put forth by the USGA. What is most important, he feels, is to have a good superintendent,

"... who knows how to grow grass."

For Garl, the particle size of the sand is the most critical aspect of greens construction.

"We're going to build USGA greens," he said, but added "modification" to his ultimate product. Because of the monsoons in Thailand, where he is working, his mix is high in sand and low in organic content, a mix of 90/10 or 95/5. Modifying the USGA specifications around the world, according to specific sites, will produce better greens, he feels.

### GROWING KNOWLEDGE

All the architects enjoy working in the region and see a growing golf awareness in all the countries.

Garl finds not only course owners, but landowners who sell small parcels of land along with other small landowners to provide the whole of a golf course, are receptive to golf.

"It creates future jobs," he said of Thailand, where "it's not uncommon for one person to have three caddies (one to carry the clubs, one an umbrella, and sometimes another carrying something else)."

As the various nations develop their tourist industries creating more jobs, and as old local enmities subside — as appears to be happening in Vietnam and Korea — more tourist dollars will engender more golf courses. This will create more jobs and the potential for yet more courses.

If the Japanese experience is any example, the sun is just beginning to rise on Southeast Asian golf.

"It is the new 'boom' area," said Minchew.

Less than a generation ago, much of the region was engulfed in bitter war. The once bloody soils are giving way to a wave of green, with American course architects at the crest.

## Asia, EPA form partnership

SINGAPORE — U.S. President George Bush has announced a U.S.-Asia Environmental Partnership in Singapore. The partnership is intended to bring together business communities, government agencies and non-governmental organizations to address environmental problems that constrain growth and to improve the environment in the Asia-Pacific region.

The U.S. Environmental Protection Agency will create the U.S. Environmental Training Institute to help fulfill the president's promises. The USETI will facilitate the transfer overseas of American environmental expertise, expanding eventually to Latin America and eastern Europe.



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# Mead uses experience in tracking Asian development

By Vern Putney

PHOENIX, Ariz. — While an MBA student at Stanford University, Chris Mead might not have visualized golf as his life's future focus, but he assuredly had his business eyes fixed squarely on Southeast Asia.

He learned the Japanese language in two years of university study, launched a Japanese newsletter while a student, and shortly after graduation was involved in business ventures with the Japanese in San Francisco.

Mead started a newsletter in January 1984 in Phoenix entitled "Japanese Hi-Tech Performance," ventured briefly into the brokerage and golf field by arranging the sale of the executive 18-hole Country Meadows course in Phoenix for \$1.5 million, and found the golf lure irresistible.

He began taking U.S. developers to Hong Kong and Taiwan to meet with Asians interested in American and Asian golf course investments. Mead continued to publish a real estate-oriented newsletter, and, with correspondence from Hong Kong and Taiwan sources, kept abreast of current situations in these locales.

Delving more deeply, he unearthed some surprising statistics.

In Southeast Asia (including China), about 2 billion persons live in about the same land area as the United States. Coastal East Asia is getting wealthier faster than anywhere in the world. Thailand, Singapore and Hong Kong are growing in wealth 5.11 percent a year.

This compares to annual personal savings in the United States of about 4 percent. The Japanese wealth growth rate is 14 percent, in many other Asian countries about 30 percent.

What does this mean in terms of golf and leisure?

Simply that these savers frequently eye golf as a form of real-estate investment to absorb tremendous amounts of cash.

"I don't know why golf is so attractive in these countries," said Mead, "but it is a fact. In crowded countries, golf is an example of conspicuous consumption. Those who have the money flaunt it."

"Those who can purchase the space and can spare the personal time have a very luxurious lifestyle. They spend half or a whole day in pursuit of personal pleasure, largely

## Asian supers organizing

ASIA — The golf industry in the Asia Pacific has developed the Asia Pacific Golf Course Superintendents' Association to meet the need for trained personnel.

The participants of Golf Asia '91 decided that a professional body was needed. A draft of the article of formation and the constitution of the organization was discussed at the APGCSA meeting to be held in Singapore, March 24-26, just prior to Golf Asia '92.

A committee was to be elected and the association formally registered.

GOLF COURSE NEWS

golf. While they might not be eager to follow the Japanese lead in shelling out \$200,000 for course membership, they seem willing to ante up \$15,000 or \$20,000."

Mead finds Australia and its residents particularly fascinating. The land Down Under could become a terrific tourist attraction for Asians, he said.

"Americans know about Greg Norman and other great golfers with Australian roots, but next to nothing about courses and development potential," Mead said.

*'In crowded countries, golf is an example of conspicuous consumption.*

*Those who have the money flaunt it.'*

— Chris Mead  
Mead Ventures

"About 16 million Australians are scattered in an area roughly the

size of the U.S. There are said to be 10 sheep for every person. Unpretentious Aussies aren't interested in \$200,000 course memberships. They're much more practical. If membership prices soared, they'd move down the road and build another course."

Mead hopes to explore in depth what he feels is a largely untapped Australian golf market. He believes figures will be favorable for concentrated development.

Meanwhile, he likes the looks of

this contrast: There are 14,000 golf courses in the United States catering to 22 million golfers, 14 million golfers in Japan battling for swing room on 1,800 courses.

Malaysia's 19 million people are expected to seek out 80 courses within two years.

Australia may soon be the desired development target. Mead zeroed in on the possibilities in a talk at the Golf Development and Investment Conference in Singapore on March 30.

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CIRCLE #135

# New Asian courses by U.S. architects

This chart lists projects underway or recently completed by U.S. architects working in Asia and Australia. An estimated 80 to 85 percent of new courses being built in the region are designed by American architects.

This information represents a good-faith effort on the part of *Golf Course News* to track golf course development in the region. We realize some American architects and their projects may have been overlooked and for that we apologize.

Under the column marked "Status": "O" = opened in 1991 or 1992; "U" = under construction; and "P" = in planning.

Location	Architect	Status	Location	Architect	Status	Location	Architect	Status
<b>Australia</b>			Ibaraki Pref.	Mark Rathert	U	Taejon	Mark McCumber & Assoc.	P
Brisbane	Perry Dye	U	Ibaraki Pref.	Perry Dye	U	Yongin-Kun	Arnold Palmer	U
Gold Coast	Arnold Palmer	P	Ichigai	Jack Nicklaus	P	<b>Malaysia</b>		
New South Wales	Steve Smyers	O	Iga Ueno	Arnold Palmer	P	Johor	Jack Nicklaus	P
Newcastle	Robin Nelson	P	Imaichi	Jack Nicklaus	P	Johor Baharu	Perry Dye	P
Perth	Perry Dye	U	Ishihara Pref.	Robert Trent Jones II	U	Johore	Gary Player	P
Queensland	David Graham/Gary Panks	U	Ishikawa Pref.	Jack Nicklaus	P	Kota Kinabalu	Ronald Fream	P
Surfer's Paradise	Arnold Palmer	U	Iwaki	Maurly Miller	U	Kuala Lumpur	Denis Griffiths	P
Surfer's Paradise	Ted Robinson	P	Kagoshima	Arnold Palmer	P	Kuala Lumpur	Gary Player	P
Yeppoon	Karl Litten	U	Kagoshima	Lee Trevino/John Sanford Jr.	P	Kuala Lumpur	Jack Nicklaus	U
<b>China</b>			Kagoshima	Lee Trevino/William Graves	P	Kuala Lumpur	Robin Nelson	U
Canton Province	Gary Roger Baird	P	Kagoshima Pref.	J. Michael Poellot	U	Kuala Lumpur	Ronald Fream	U
Mainland	Perry Dye	P	Kagoshima Pref.	J. Michael Poellot	U	Kuching, Sarawak	Arnold Palmer	U
Quangdong Prov.	Arnold Palmer	P	Kagoshima Pref.	J. Michael Poellot	U	Melaka	Robin Nelson	P
Zongshan City	Jack Nicklaus	U	Kanuma	Arnold Palmer	P	Pahang	J. Michael Poellot	P
<b>Guam</b>			Karuizawa	Jack Nicklaus	P	Selangor	Ronald Fream	U
Dededo	Ronald Fream	P	Kashiwazaki	Denis Griffiths	P	Terengganu	J. Michael Poellot	P
Mangilao	Robin Nelson	O	Kofu	Hale Irwin	P	<b>Marianas Islands</b>		
N/A	Arnold Palmer	U	Kumamoto	Arnold Palmer	P	Rota Island	Robin Nelson	P
N/A	Jeffrey Brauer/Larry Nelson	P	Mie	Perry Dye	P	Saipan	Gary Player	P
N/A	Mark Rathert	P	Mie Pref.	Perry Dye	P	Saipan	Lee Trevino/William Graves	P
Pulantat	Robin Nelson	P	Miki	Arnold Palmer	P	<b>New Zealand</b>		
Togcha Beach	Robin Nelson	P	Minakami	Arnold Palmer	P	Dunedin	Arnold Palmer	P
Yona Hills	Jack Nicklaus	U	Minakami	Arnold Palmer	U	<b>Philippines</b>		
<b>Hong Kong</b>			Minakuchi	Jack Nicklaus	P	Canlubang	Robert Trent Jones II	U
New Territories	J. Michael Poellot	P	Miyagi	Perry Dye	P	Cebu Island	Greg Nash	P
<b>Indonesia</b>			Miyagi	Ronald Fream	P	Island of Cebu	Gary Player	P
Bali	Robin Nelson	O	Miyagi Pref.	Jack Nicklaus	U	Lian Baatangas	Gary Player	P
Batam	Jeffrey Brauer/Larry Nelson	U	Miyagi Pref.	Jack Nicklaus	U	Manila	Arnold Palmer	U
Batam Island	Jack Nicklaus	P	Miyakojima Island	Mark Rathert	U	Manila	Jack Nicklaus	U
Batam Island	Perry Dye	P	Miyazaki	Lee Trevino/John Sanford Jr.	U	<b>Singapore</b>		
Bintan Island	Gary Player	P	Miyazaki	Lee Trevino/William Graves	U	Singapore	Perry Dye	U
Bintan Island	Ronald Fream	P	Mobara City	Mark Rathert	P	<b>Tahiti</b>		
Bogor	J. Michael Poellot	P	Nagano	Perry Dye	P	Opunohu	Arnold Palmer	P
Bogor	Ted Robinson	P	Nagano	Perry Dye	P	<b>Taiwan</b>		
Cimmangis District	Jack Nicklaus	P	Nagano Pref.	J. Michael Poellot	O	Kaohsiung	Gary Roger Baird	P
Indah Puri	Ronald Fream	U	Nagano Pref.	J. Michael Poellot	U	Kuan Si	Gary Player	U
Jakarta	Gary Player	P	Nagasaki Pref.	Jack Nicklaus	U	Kwan-Hsi Town	J. Michael Poellot	U
Jakarta	J. Michael Poellot	U	Nagoya	Jack Nicklaus	P	Linkou	Gary Player	U
Jakarta	Jack Nicklaus	U	Nagoya	Perry Dye	P	Nantou Hsien	Lee Trevino/William Graves	U
Jakarta	Mark Rathert	P	Naha, Okinawa	Robin Nelson	U	South	Jack Nicklaus	P
Jakarta	Robert Trent Jones II	U	Nakatsugawa	Lee Trevino/William Graves	O	Taichung	Perry Dye	P
South Island	Gary Player	P	Nara	Hale Irwin	O	Tainan	Perry Dye	U
West Java	Arnold Palmer	P	Nara	Johnny Miller	O	Taipei	J. Michael Poellot	P
<b>Japan</b>			Nayoga	Jack Nicklaus	U	Taipei	Jack Nicklaus	P
Aomori	Arnold Palmer	U	Niigata	Denis Griffiths	P	Taipei	Jack Nicklaus	P
Aomori Pref.	Arnold Palmer	P	Niigata Pref.	J. Michael Poellot	P	Taipei	Jack Nicklaus	U
Asahikawa	Maurly Miller	P	Niigata Pref.	J. Michael Poellot	P	Taipei	Lee Trevino/William Graves	U
Ashikaga	Jack Nicklaus	P	Niseko	Arnold Palmer	P	Taipei	Michael Hurdzan	P
Atsugi	Charles Ankrom	P	Noda	John Sanford Jr.	P	Taipei	Perry Dye	U
Bosena, Okinawa	Robin Nelson	P	Oaza-Nagasawa	Arnold Palmer	P	Taipei	Ronald Fream	U
Chiba	Hale Irwin	U	Ogawa	Jack Nicklaus	P	Taoyuan	Arnold Palmer	P
Chiba	Perry Dye	O	Okayama	Perry Dye	P	Yangmei	Arnold Palmer	P
Chiba	Perry Dye	P	Okayama Pref.	Robert Trent Jones II	U	<b>Thailand</b>		
Chiba	Perry Dye	U	Okazaki City	Jack Nicklaus	P	Ban Chang	Robert Trent Jones II	U
Chiba Pref.	Arnold Palmer	P	Okinawa	Jack Nicklaus	P	Ban Nonggo	Jack Nicklaus	P
Chiba Pref.	J. Michael Poellot	O	Okinawa	Perry Dye	U	Bangkok	Arnold Palmer	P
Chiba Pref.	J. Michael Poellot	U	Osaka	Ronald Fream	P	Bangkok	Arthur Hills/Keith Foster	P
Chiba Pref.	Robert von Hagge	P	Oshino	Ted Robinson	P	Bangkok	Bob Walker	P
Fuji	Arnold Palmer	P	Saitama	Jack Nicklaus	P	Bangkok	David Graham/Gary Panks	U
Fukui	Jim Fazio	O	Saitama	Perry Dye	P	Bangkok	Gary Player	U
Fukushima Pref.	J. Michael Poellot	P	Saitama	Perry Dye	P	Bangkok	Gary Roger Baird	P
Fukushima Pref.	Robert von Hagge	P	Sapporo	Larry Nelson	O	Bangkok	Gary Roger Baird	P
Fukushima Pref.	Robert von Hagge	P	Sapporo	Maurly Miller	U	Bangkok	J. Michael Poellot	P
Furano	Arnold Palmer	P	Sapporo	Perry Dye	P	Bangkok	J. Michael Poellot	U
Futatsumori	Maurly Miller	P	Shikoku Island	Jack Nicklaus	P	Bangkok	J. Michael Poellot	U
Gifu	Perry Dye	U	Shin Shirakawa	Michael Hurdzan	U	Bangkok	Jack Nicklaus	P
Gifu Pref.	Arnold Palmer	P	So. of Nara	Arnold Palmer	P	Bangkok	Jack Nicklaus	P
Gifu Pref.	J. Michael Poellot	O	Takasaki	Denis Griffiths	U	Bangkok	Jack Nicklaus	P
Gumma	Perry Dye	P	Tanegashima Island	Karl Litten	O	Bangkok	Jack Nicklaus	U
Gumma Pref.	J. Michael Poellot	O	Tochigi	Arnold Palmer	P	Bangkok	Jack Nicklaus	U
Gumma Pref.	J. Michael Poellot	U	Tochigi	Perry Dye	O	Bangkok	Perry Dye	U
Gumma Pref.	Jack Nicklaus	P	Tochigi Pref.	J. Michael Poellot	P	Bangkok	Robert Trent Jones II	U
Gumma Pref.	Perry Dye	P	Tochigi Pref.	J. Michael Poellot	U	Bangkok	Ron Garl	P
Gumma Pref.	Mark Rathert	U	Tochigi Pref.	Jack Nicklaus	U	Bangkok	Ronald Fream	U
Hakajin, Okinawa	Robin Nelson	P	Tochigi Pref.	Mark Rathert	P	Bangkok	Ronald Fream	U
Hakusan	Arnold Palmer	P	Tochigi Pref.	Robert Trent Jones II	U	Cha-am	Jack Nicklaus	U
Hiroshima	Jack Nicklaus	P	Tochigi Pref.	Robert von Hagge	U	Chang Rai	Robert Trent Jones II	U
Hiroshima	Mark McCumber & Assoc.	P	Tokyo	Arnold Palmer	P	Chiang Mai	Denis Griffiths	O
Hiroshima Pref.	Robert Trent Jones II	U	Tokyo	Dan Maples	P	Chiang Mai	Jack Nicklaus	P
Hokkaido	Arnold Palmer	P	Tokyo	Gary Player	U	Chiang Rai	Ronald Fream	P
Hokkaido	Arnold Palmer	P	Tokyo Pref.	Mark Rathert	P	Chol Brui	Ronald Fream	U
Hokkaido	Bob Walker	P	Tomioke	Ted Robinson	P	Chonburi	Mark Rathert	P
Hokkaido	J. Michael Poellot	P	Utsunomia	Jack Nicklaus	P	Kanchanaburi	Gary Roger Baird	U
Hokkaido	J. Michael Poellot	P	Wakayama Pref.	J. Michael Poellot	P	Kanchanaburi	Gary Roger Baird	P
Hokkaido	Jack Nicklaus	O	Yamagata	Perry Dye	P	Muak Lek	Robin Nelson	U
Hokkaido	Perry Dye	P	Yamagata	Ronald Fream	P	Nakhon Nayok	Robin Nelson	U
Hokkaido	Perry Dye	P	Yamaguchi Pref.	Robert von Hagge	P	Nakorn Rajasima Prov.	Jack Nicklaus	U
Hokkaido	Perry Dye	P	Yamanashi Pref.	Robert von Hagge	P	Pattaya	Denis Griffiths	U
Hokkaido	Robert von Hagge	U	Yamanashi	Perry Dye	P	Phetchaburi	Jack Nicklaus	U
Hokkaido Pref.	J. Michael Poellot	O	Yamato	Clyde Johnston	P	Phuket	Perry Dye	P
Hokkaido Pref.	Jack Nicklaus	P	<b>Korea</b>			Phuket Island	Ronald Fream	P
Hokkaido Pref.	Robert Trent Jones II	U	Checu Island	Ted Robinson	P	Rayong	J. Michael Poellot	P
Hyogo	Perry Dye	U	Cheju Island	Perry Dye	U	Rayong	Ron Garl	P
Hyogo Pref.	J. Michael Poellot	P	Chonan	Robin Nelson	P	Sriracha	Gary Player	P
Hyogo Pref.	Robert von Hagge	P	Kwangju	David Rainville	U	Sriracha District	Jack Nicklaus	U
Hyogo Pref.	Robert Trent Jones II	U	Muju	Arnold Palmer	P	<b>United Arab Emirates</b>		
Ibaragi Pref.	Robert Trent Jones II	U	Seoul	David Rainville	O	Dubai	Karl Litten	U
Ibaragi Pref.	Robert von Hagge	U	Seoul	Gary Roger Baird	P	Dubai	Karl Litten	U
Ibaraki	Perry Dye	U	Seoul	Perry Dye	U			
Ibaraki Pref.	J. Michael Poellot	P	Seoul	Ronald Fream	U			
Ibaraki Pref.	Jim Fazio	O						

## Environmentalists in India fight to save old course

PATNA, Bihar, India — Environmentalists are trying to prevent Patna Golf Club here from being turned into shelter for the poor and to save it as open space.

Laloo Prasad Yadav, chief minister of the state of Bihar, who regards golf as an elitist pastime of the rich, wants to convert the 100-acre course into shelters.

The club is on land leased from the government, which is common in this country since most Indian courses were located in the British areas of cities and, after Indian independence, much of the land in these areas became government land.

Patna Golf Club, built around 1915, represents one of few open green areas in the capital city.

Environmentalists see golf courses as valuable to ecology.

They say that as Indian cities become more crowded, over-grazing kills off remaining pastureland, and petroleum and particle pollution increase, India's air quality will depend on preserving green space.

## Membership over-selling deals sock Japan

JAPAN — Financial-political scandals have rocked Japan recently, where golf course and country club memberships are purchased as investments and traded like stocks.

Former transport minister Shintaro Ishihara and fellow politician Kiyoshi Mizuno both accepted large financial donations from real-estate agent Ken Mizuno, who was being investigated after selling 52,000 memberships in Ibaraki Country Club, even though only 2,830 memberships were available.

The memberships are now worthless, several of Mizuno's companies have gone bankrupt and numerous claims have been filed by investors.

Mizuno has had trouble with the law on the other side of the Pacific, too. He's been under investigation by Nevada, U.S.A., police since 1972 for alleged excessive gambling activities and suspected underworld connections. Mizuno owns Indian Wells Country Club in California, Showboat Country Club near Las Vegas, and Showboat Sports Clubs, which runs casinos and resorts.

There have been several well-publicized cases of golf course developers bribing politicians for project approval. Itoman has canceled its three-year, ¥700 million (US\$5.38 million) contract with the Ladies Professional Golfers Association to sponsor the World Ladies Matchplay Championship after word of shady loans, ostensibly involving golf course development, were used to buy land and make other purchases.

## Developers, investors see Southeast Asia as financial source

Southeast Asian developers are seen as major sources of golf course financing this year, according to a survey conducted by Arthur Andersen Real Estate Services Group of Los Angeles.

Arthur Andersen conducted the survey at a seminar in Hawaii attended by developers and investors from North America, the United Kingdom, Australia, Hong Kong, Malaysia/Indonesia and the Philippines.

Respondents anticipated the majority of golf property financing this year will come from Southeast

Asia. Thirty percent felt Taiwan, Thailand and Korea would be very active. Sixteen percent said Hong Kong investors would be major players, mostly through direct acquisitions.

Despite reduced Japanese capital in U.S. real estate, those surveyed saw Japanese as being the most active in U.S. golf properties, either through financing, joint ventures or acquisitions.

Dutch and British financiers are apparently not interested in American golf properties, according to the survey.

According to Robert E. Davis Jr., director of real estate capital markets for Andersen, 94 percent of the respondents reported difficulty obtaining financing for projects the past 12 months, and 89 percent said 1992 will be no better.

"Unfortunately, credit is extremely tight for anyone seeking loans on real-estate or related projects," Davis told Golfweek.

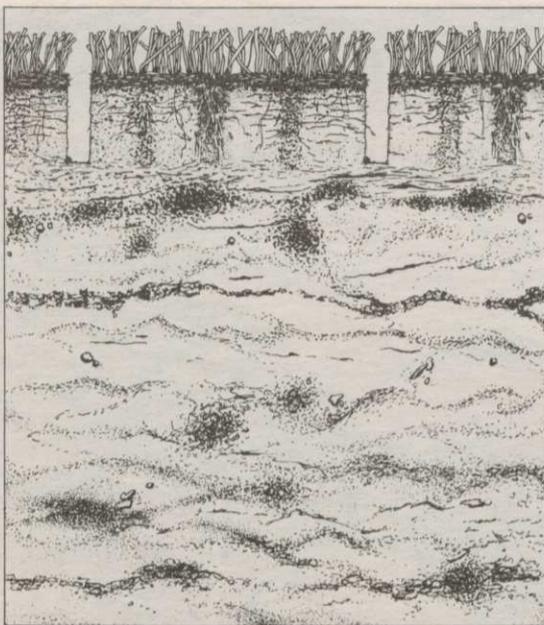
He said foreign investors and private capital sources are expected to become more significant providers of equity financing for golf projects. Seventy-two percent of

those surveyed predicted foreign investors and private capital will be the major equity sources in three years.

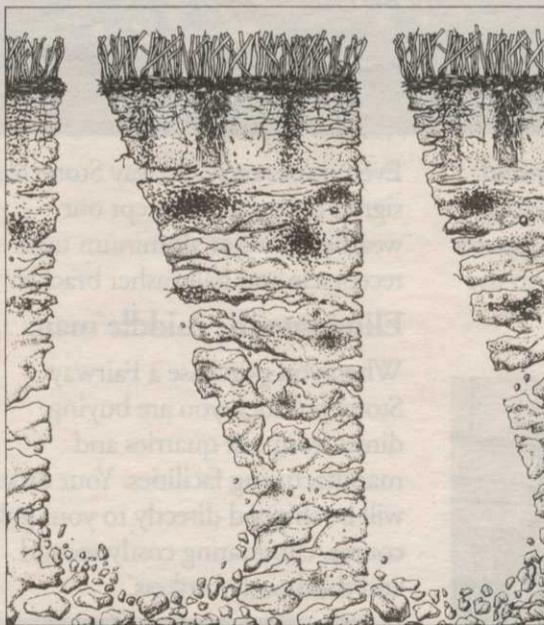
Only 42 percent considered these groups a major source in 1986.

Davis said a significant portion of the available capital for golf projects will be targeted toward properties in Southeast Asia and Western Europe.

"Their more vibrant economies and real-estate markets make it easier to develop and finance golf properties abroad than in the United States," he said.



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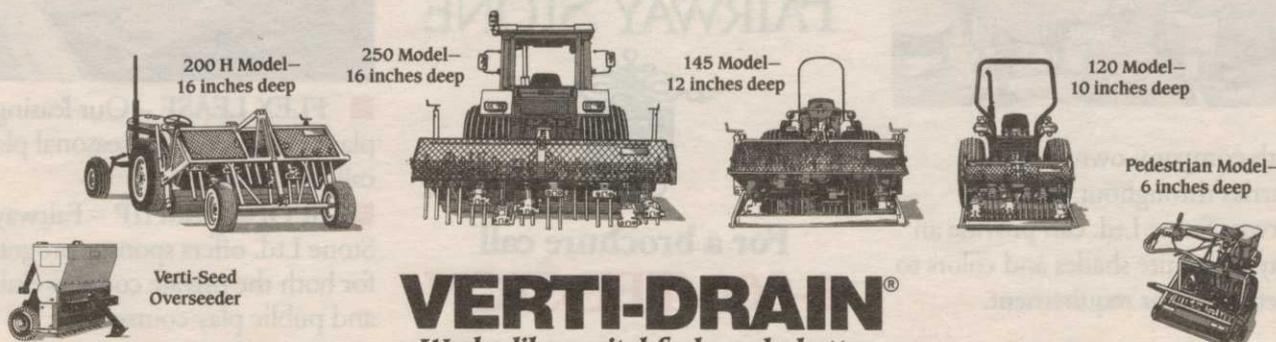
Some people believe the myth that all aeration is beneficial. But they're wrong. You've got to match the aeration technique with the soil profile. For instance, often vertical aerating equipment cuts the roots and undermines results. Other equipment makes holes too small to allow fertilizer and nutrients through or to remain open. Some devices fail to crack the core sidewalls and don't allow water to drain properly. Many turf professionals have found that aerating or punching too close to the surface can create a new subsurface hard pan.

It is sometimes better to pull cores as opposed to solid tining. To be sure, the knowledgeable turf professional recognizes that selecting the appropriate aeration technique is a complex decision involving many factors. Fine textured soils, high sand-based soils, high silt and clay content soils all require special considerations regarding deep cultivation.

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# Driving range industry continues boom era in Japan

When one hears the expression "golf boom," the tendency is to envision lush courses around the world, expensive memberships, predawn lines of golfers awaiting tee times. For the Japanese, the obsession with the game also involves no courses, no pars. Driving ranges are booming at Clubhouse Japan.

According to information provided by Japan Golf Report (JGR), nearly 5,000 driving ranges are registered in the country. Based on 1989 figures, the average number

of annual visits to each range was 26,466.

Tokyo was the leader with 362 ranges and 15.14 million visits. But in that city, according to JGR, "The astronomical price of land has led to the closure of many inner-city outdoor ranges. Their place has been taken, however, by practice areas, sports clubs and golf schools created inside buildings throughout the Greater Tokyo district..."

In Yokohama, a 71-bay "Golf Dome" opened on land belonging to Japan Railways. The dome is an

inflatable tent, with the driving bays situated on three floors. Portrayed as an "urban-style amusement center," it was built on an 11,000-square-meter site in front of the Yokohama (Railroad) Station. The complex includes a pro-shop, restaurant, computer-simulated golf course and an art gallery.

Built at a "relatively low cost" of \$15.4 million (¥2 billion,) the dome was jointly developed by International Consulting and Planning, Inc., Xecta and Mizuno Corp. The inflatable structure weighs 43 tons

and takes about four hours to inflate.

The project was created "initially" for only a two-year period. Mizuno Corp. has planned another dome. An all-weather driving range called "Golf Dome 21."

Equipped with an automatic ball-retrieval system, the golf section will have 80 hitting bays, according to JGR, plus 20 for group lessons, 24 for golf schools and another 20 for bunker practice.

The dome's planned facilities also include Mizuno's original swing analysis system, a swimming pool,

sauna, shop, restaurant and putting courses. Expected cost for the dome is \$61.5 million (¥8 billion) and will take about two years to build.

Among the more than 120 million visitors to Japan's driving ranges in 1989, not all were visiting amenities. Outdoor ranges, particularly in colder climates, reflected a smaller number of visitors and the disparity between urban and rural sites. Tokyo's 15 million range visitors is a far cry from Akita, which had a mere 6,673 range users.

Especially in the country districts, there is a construction boom where large corporations "often develop new resorts and golf practice facilities on unused land." Still, it is not uncommon for ranges to go bankrupt," JGR said, because of too much competition, or too little consideration of location when they were built."

The Japanese driving range industry is "approaching an era of civil war," according to Shuichi Yamashita, editor of Kanto Golf Driving Ranges Federation News.

As land prices in Tokyo continue an upward spiral, many inner-city outdoor ranges have been closed. In their place, indoor golf schools and practice areas have been created throughout the Greater Tokyo area.

To put the popularity of driving ranges in perspective, in Tokyo alone the number of visitors to the ranges constitutes "more than one visit for every person living in the Tokyo area," according to JGR.

## Volcanoes major fear at Unzen Golf Course

UNZEN, Japan — This community, in Nagasaki Prefecture, is the site of Japan's oldest public golf club, Unzen Golf Course, established in 1913. It's also under the shadow of Mt. Fugen, whose eruptions have already killed more than 30 people.

Although the course is not directly affected by the volcano, it has suffered a considerable drop in visitors and, consequently, revenue. Shimabara Country Club, a nearby course established in 1959, was forced to close June 4-July 29 last year after the volcano's activities closed area highways.

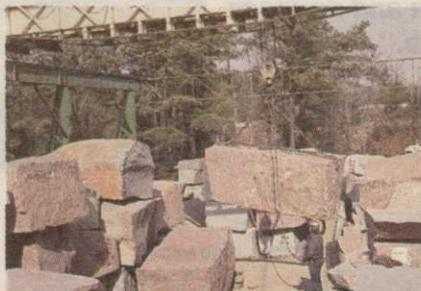
Shimabara has not suffered a direct hit, but reports an ash problem, which kills the fairway turf if left for long.

Mt. Fugen last erupted in 1792 in Japan's worst volcanic disaster, when nearly 15,000 villagers died, mostly drowned in tidal waves. The recent explosions are the biggest in 65 years in Japan, which has 77 active volcanoes.

The Japan Professional Golfers' Association has contributed ¥1 million (\$7,692) to disaster victims, and several tournament sponsors and professional golfers have made large donations as well.



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## Thai PGA hosts American teacher

BANGKOK, Thailand — Jim McLean, golf director at Sleepy Hollow Country Club in Scarborough, N.Y., U.S.A., recently completed a teaching seminar here for the Thai PGA.

The purpose of McLean's latest seminar was to establish the country's first golf teaching foundation and teaching curriculum for Thai PGA members so that they might compete for vacant golf director and golf professional positions throughout Thailand.

McLean didn't expect the same success that attended a teaching stay in late December 1989. Then, Manoch Saengsui won the 72-hole National Panasonic golf tournament by seven shots and credited his first win in five years as a pro to a change in swing influenced by McLean.

"I followed a seminar organized by Royal Gems Golf and Sports Complex and run by McLean. That helped improve my game," said Saengsui.

McLean was 1987 PGATeacher of the Year. His trip and teaching seminar program to Thailand was sponsored by Jim McLoughlin, president of The McLoughlin Group in Pleasantville, N.Y., USA.

McLoughlin's golf consulting firm provides service to Thai and other Asian, European and domestic clients.

Initial results of the teaching seminar were encouraging. Thai PGA members were exposed to the game's leading teaching philosophies. Presentations were video-taped for re-use.

McLean arranged for the better golf teaching books and video programs to become available to the Thai PGA and, upon return to the United States, negotiated sponsor agreements for leading Thai professionals playing the Asian Tour.

## Pacific Rim/Japan conference set

Leading resort and golf industry experts from Asia and America will speak at the Pacific Rim/Japan/American Resort and Golf Executive Conference in Waikiki Beach, Hawaii, USA, on May 27-29.

Noted golf course architects Desmond Muirhead and Ronald Fream will be among the speakers.

They will address such topics as design and construction, financial backing and property marketing and sales. Delegates will also have the chance to network with international figures and visit 75 industry exhibits.

Sponsored by Executive Conferences and Seminars Inc. of San Rafael, Calif., USA, the conference will be held at the Hilton Hawaiian Village in Honolulu. For more information, contact Michelle Goodman or Charles Duff at 415-453-1184.

## Tokyo, New York businessmen build Chinese country club

SHANGHAI, China — The Shanghai International Golf and Country Club, designed by Robert Trent Jones Jr., opened May 21, 1991, at Dian Shan Lake, 50 kilometers west of Shanghai.

Prescott Bush of New York and Tokyo's Aoki Corp. developed the facility jointly. The championship 18-hole course has three practice holes and a water driving range. Other planned amenities include a swimming pool, villas and 12 tennis courts.

A golf-like game called suigan was played in China by the nobility during the Ming Era (1368-1644), so there was historic interest when British and Japanese enthusiasts brought golf to Japan in the last century. There were several courses in the Shanghai area before golf was banned in China in 1949. (One golf course was turned into a zoo.)

There are now eight courses in China, including the first course designed by a Chinese group, which opened recently.

## Second Asian conference planned in Kuala Lumpur

*International speakers lined up for conclave*

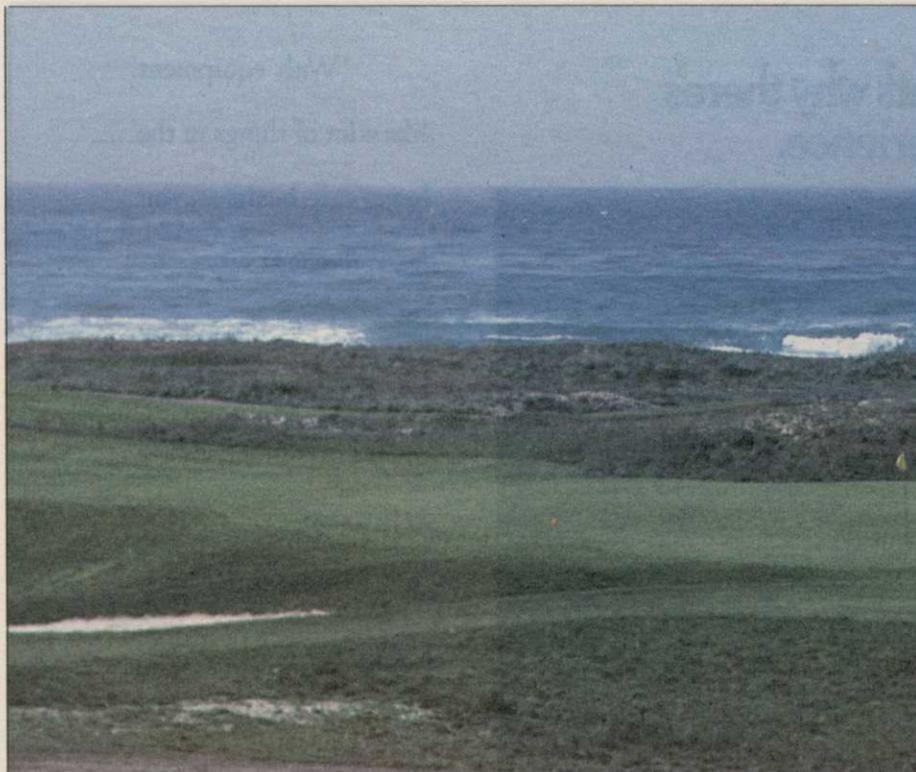
KUALA LUMPUR, Malaysia— A second Asian golf conference, Asian Golf Course '92, will tee off at the Putra World Trade Centre here, June 24-27.

The Malaysian event is scheduled to feature a regional conference and seminar, with internationally prominent speakers, in addition to the trade show.

Golf was first introduced to Malaya by the British, and has a sizable following in the tropical country.

There are 80 fully opened golf courses in Malaysia, 80 percent more than Singapore and almost 20 percent more than Thailand, according to the conference's organizer. Thirty more courses should appear in the next five years, with Malaysia poised to become Asia's golfing center.

Zainal Abidin Shah, show organizer, also organized the first international golf show in Singapore.



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CIRCLE #142

# Turf schools, turf experts cited as the greatest need in Asia

By Peter Blais

The lack of turf schools and educated turf managers are two of the biggest problems architects and developers face in Asia, according to experts in the region.

"Developers don't always recognize the need for a well-trained superintendent," said architect Ronald Fream, who has been designing courses in the Pacific Basin for 20 years.

"Yet the real work starts when the construction ends. The course is finished and you leave it in the hands of

a 100-man crew with no one with any turf education. It's frustrating."

American professors and golf industry experts frequently give seminars throughout Asia. Dr. Jim Beard of Texas A&M University is one of the most active.

"But sending Beard over for an occasional three-day conference just doesn't cut it. Beard does a good job. But he and a handful of other visiting professors can't do it alone," Fream said.

Korea is probably closest to having anything resembling a U.S. turf school,



Ronald Fream

said Jim Watson, vice president and agronomist with The Toro Co. Watson has spent considerable time lecturing and researching in Asia.

Dr. Ki Sun Kim finished his doctoral work at Texas A&M, Watson said. Sun is teaching turfgrass management and doing extensive research at Seoul National University.

Dr. Joon Ahn is another well-known Korean researcher and educator, according to Associate Professor John King of the University of Arkansas. Ahn was the first to reproduce common Bermudagrass

by tissue culture, King said.

Dr. Young K. Joo at Yonsei University is also teaching and doing turfgrass research, added Professor Nick Christian of Iowa State University.

Christian has conducted seminars in Korea. Asian students have also attended Iowa State. But there is still a lack of qualified superintendents in Korea and elsewhere in Asia.

"The growth of golf has simply outstripped the area's ability to turn out qualified students," Christian said. "I think it will catch up. I wouldn't mind having a few more Korean students here at all."

Korea is farther along in turf research than other Asian countries, agreed Professor Paul Reike of Michigan State University. Several other Korean professors have worked on their Ph.D.s in the United States and are teaching and doing research in their home country.

The Koreans are much more advanced than the Japanese in turf research, agreed Doug Brede, research director with Jacklin Seed Co. and a frequent visitor to the Far East.

"The Koreans have three or four schools with turf teachers and researchers who have been trained in the United States," Brede said. "The Koreans will probably eclipse everyone in the region."

"The Japanese rely on their own educational system to train people. The problem with the educational system is that the work of older educators is never questioned. There is no peer review, so little progress is made."

The Japanese are probably superior to the United States in teaching the basics of chemistry and biology, Brede said. They come up short in practical education, such as taking that knowledge and applying it to turf, which Americans do effectively through turf schools, he added.

Dr. Yoshisuke Maki is the leading turfgrass researcher and educator in Japan, Watson said. The past president of the International Turfgrass Society recently retired from education, although he continues to do consulting work and lectured last fall at a conference in Hokkaido.

The Golf Union is the rough Japanese equivalent of the United States Golf Association, Watson said. It maintains laboratories and field stations near Osaka and helps organize seminars.

Still, students must travel to and train in U.S. turf schools before they are taken seriously, Watson said.

"The Japanese don't want to listen to natives because they feel they know nothing about turf," the Toro executive said. "They look at the United States as having the best golf courses in the world. They want people who have been involved in American courses managing their facilities."

"They haven't had the chance to incorporate course work and research into the golf industry. But I think it will come before long."

Many Japanese students have attended Michigan State University's turf program, according to Professor Trey Rogers. Japanese companies send one or two employees over every year. They gen-

Continued on page 45  
GOLF COURSE NEWS

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## Harvard Graduate School of Design offers special study in golf course development

CAMBRIDGE, Mass. — The Harvard Graduate School of Design has invited golf consultant Jim McLoughlin to present a mid-June course of study on the general subject of Golf Course Development.

The curriculum will be developed and presented through McLoughlin's two firms: The McLoughlin Group, a golf consulting firm, and Double Eagle Enterprises, a golf development company.

The course is designed for present and future developers, counselors to developers, investors and government regulators/planners. It will ad-

dress defining feasibility studies, minimum site requirements, regulations and approvals, model business plans, the critical importance of master-site planning, public and private financing, construction parameters, sample model schedules and summary reasons why projects fail.

Guest Speaker Thomas J. Boczar is one of the country's leading public finance lawyers and a principal within Double Eagle Enterprises.

Boczar will address the topic of financing public and private golf course development projects.

## N.J. site a challenge to Fazio

GALLOWAY TOWNSHIP, N.J. — With major development approvals now in hand, Galloway National Golf Club has begun accepting membership applications, according to Vernon W. Hill, II, chairman of the club at this Jersey shore community just outside of Atlantic City.

Almost three years into the approval process, the \$10 million, 18-hole championship golf course designed by Tom Fazio has received the necessary approvals from Galloway Township, Atlantic County

and the state of New Jersey. That clears every hurdle necessary to get the project underway this year.

"Some of the factors that will make this a very special golf course were among those that held up the approval process," said Hill, "including location in an environmentally attractive but sensitive seashore area."

Fazio said it will not be a course "with only one or two signature holes. It will have many outstanding holes, but more significant will be the overall quality of the entire golf... experience."

## Turf schools

Continued from page 44

erally spend four or five months at MSU before moving on to another American school, he said.

Rogers and other American educators spoke at a 1989 turf show in Tokyo. Delegates were so impressed that 35 of them later traveled to MSU for a one-day seminar, Rogers said.

Americans have been imported to fill the agronomic gap in Japan. However, they are generally drawn to the higher-paying construction jobs rather than the lower-paying, daily-maintenance positions.

Golf course superintendent is not a high-profile job in Japan. It is not viewed as a specialty, said Dennis Vogt, Dye Designs International's director of maintenance. The pay scale is low compared to other occupations, Vogt added.

"I don't see the situation changing much. The Japanese superintendent will get better as he works with Americans, gains experience, makes trips abroad and attends seminars. But few Americans will work there as day-to-day superintendents," he said.

The situation is even worse in a country like Thailand, Fream noted. The pay is generally low, around \$600 per month. That is not attractive to Americans nor enough to encourage native Thais to seek more education.

Some turf education and research is being done in China, Watson said. Turfgrass research plots are being maintained at the University of Beijing with the help of American companies like Jacklin Seed Co. and International Seeds Inc. Dr. Peter S. Hu, retired director of the Beijing Botanical Institute, has also conducted educational seminars, he added.

"But for the most part, education continues to come from the outside," Watson said.

Even fewer educational opportunities are available in Indonesia, Malaysia, Thailand, Singapore and the rest of Southeast Asia, Watson said. Americans continue to dominate the construction and better-paying daily-maintenance positions in those countries as well.

Pennsylvania State University turfgrass management graduates can be found on construction sites in Asia, according to George Hamilton, program coordinator.

Occasionally they work on construction projects where they meet local people interested in turf studies. Often they refer them to Penn State and some end up attending it.

GOLF COURSE NEWS

## The Penn Pals: Right on Course



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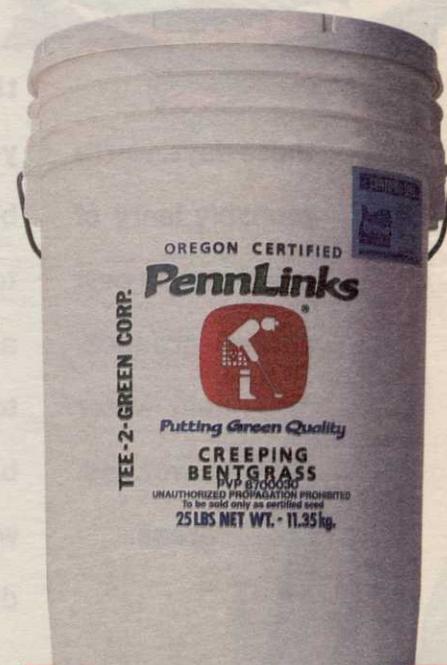
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# Opinions differ on just what makes a great finishing hole

Continued from page 24

day, but you should have a hole where one guy can make an eagle and one guy can make a par. Why would the tournament be over if a guy has a two-shot lead (going into the 18th hole?)

"It can't be too hard," said Howard Twitty, a consultant on the Tournament Players Clubs in Cromwell, Conn., and Scottsdale, Ariz. "There has to be good shot reward."

Touring pros cited many ways for great finishing holes to create

good shot reward. Ben Crenshaw, a former Masters champion who is designing classical-type golf courses, said that great finishing holes should be exceptionally trapped and could play into the wind.

"They all have a great flair of individuality to them," said Crenshaw. "They fit the puzzle."

Other pieces go into the figsaw of great 18th holes. Nick Faldo, a two-time British Open and Masters champion, said there should be a big bunker to make players avoid hitting to a certain side of the hole.

"There's got to be the scare factor in it," said Faldo. "You're playing the 18th hole under pressure so you have to hit it where you intend to hit it. The hole should just demand two or three shots you have to hit and if you don't hit them, then you'll be struggling."

Azinger likes to see bunkers around the green, but not necessarily in front of the putting surface. He doesn't feel a great finishing hole should be a par-5 that demands that has to be a shot carried over a bunker.

"The greatest finishing holes should be par-5's that can be reached in two with an element of risk after a great drive," said Azinger.

Ballesteros favors smaller greens with more definition, which can be gained by having bunkers on the side of the greens. Ballesteros's fellow countryman, and course designer Spanish sensation Jose Maria Olazabal, said a great finishing hole should have a well-protected green capable of having multiple pin placements.

"It has to be tough to really put

the pressure on the guy leading," said Olazabal. "It doesn't need to be long, but it needs to be tight, with fairway traps. You're forcing everyone to hit a good shot off the tee and into the green."

Olazabal said that the best finishing hole in golf is the 18th at Augusta National Golf Club, which has decided the fate of many Masters winners and losers. He said a precise tee shot is needed on the dogleg right hole because of the trees on the right and the fairway bunkers on the left. Olazabal added that the sloping, two-tiered green offers many tough pin placements while traps on the right and left protect the green.

While Olazabal favors Augusta National's 18th, Floyd called the 18th hole at Doral Country Club's Blue Course in Miami, Fla. "the best finishing hole I've ever played."

"It's beautifully designed. It plays into the prevailing wind," said Floyd, a two-time winner of the former Doral Eastern Open Invitational (currently the Doral Ryder Open). "A lake sits down around the driving area. Very few players can hit it over the water, and have to fit their drive into a 20-yard area on the right. There is a tendency to bail out to the right. If you miss the green to the left, you're down in the water again."

But no matter how many traps in the fairways, undulations in the greens, and water hazards that an 18th hole may have to make it tough, a finishing hole's greatness may be determined by the architects ability to work with the natural terrain.

"You've got to have the natural elements," said Crenshaw. "Some come off naturally. Some looked forced."

"Any hole has to fit into the land," said Twitty. "You can't fit a round peg into a square hole."

Crenshaw and Twitty cited the 18th hole at Pebble Beach, which dares players to flirt with the Pacific Ocean that borders its left side, as a prime example of dealing with what is there.

"The 18th hole at Pebble Beach is a great hole," said Twitty. "Obviously, my 10-year-old daughter could have built a great hole there."

While PGA Tour professionals spoke of the conditions that make a finishing hole great, Ted Horton, the former head groundskeeper at Winged Foot Golf Club and currently the director of Sports and Grounds at Westchester Country Club in Harrison, N.Y. (where these interviews were conducted) mentioned the tradition that can make an 18th hole extraordinary.

"A great finishing hole has to have history, which takes time to develop - something like Bob Gilder's double eagle (in 1982 on Westchester's par-5 18th hole)," said Horton.

"If it's a par-5, there has to present an opportunity for two phenomenal shots for someone to turn the tide," added Horton. "There has to be risk and reward. It has to require the absolute best of you."

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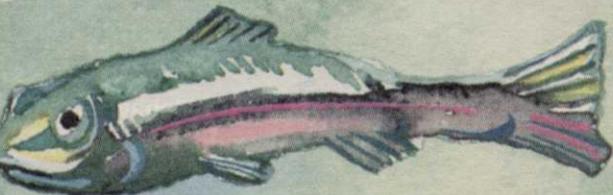
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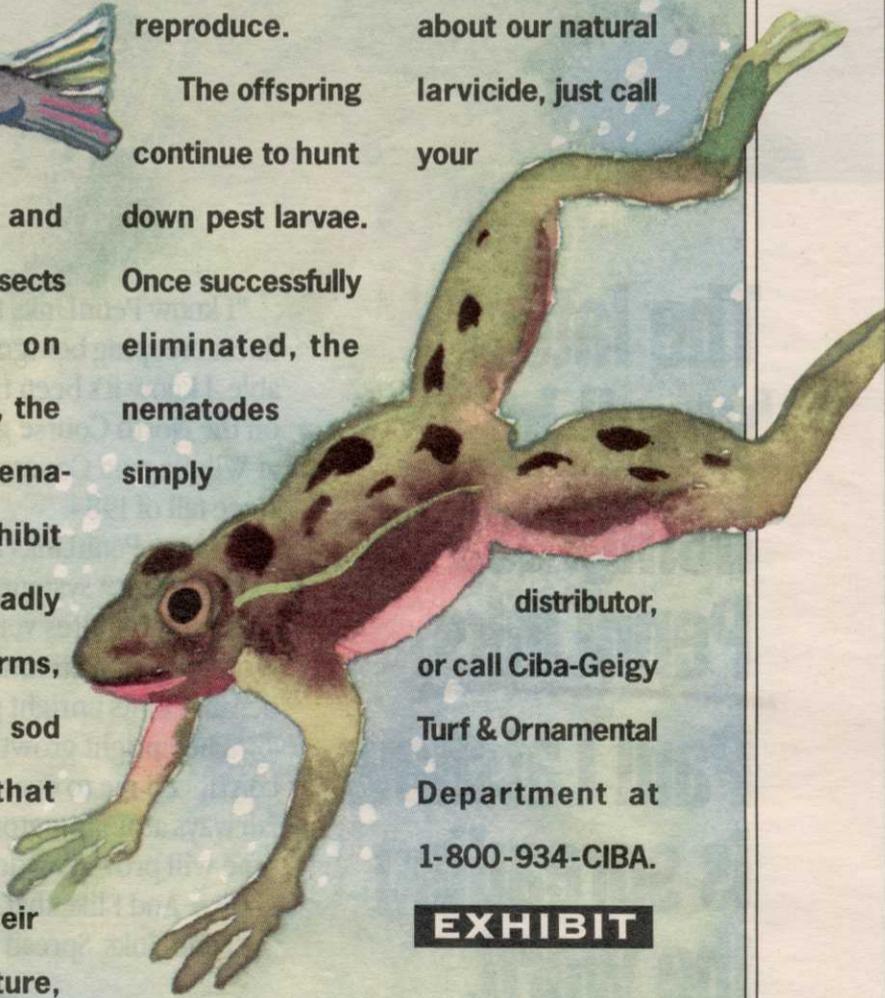
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# Vermont grants first course approval under new board

Continued from page 1

coming through the process this year."

While the decision is a good sign for developers, it may not help other course proposals, since district boards are free to accept or reject VPAC's findings, Leland said.

This month VPAC is scheduled to consider two proposals in Chittenden County, home of the District IV Environmental Board, which has twice rejected the proposed Sherman Hollow project in Huntington.

Sherman Hollow is not scheduled for an April review. But if it were, and if it received a favorable VPAC report, the District IV board would still be under no obligation to accept VPAC's recommendation, Leland said.

"Sherman Hollow points out how important neighbors' feelings still are about a project," Leland said. "If there's no opposition from neighbors, or anyone else, a project will usually get a permit."

Leland said golf industry leaders could use the Equinox decision as impetus to change state law, so that the burden of proof is taken off the developer to prove a project won't adversely affect neighbors' property, and placed on abutting landowners to prove that it will.

Equinox underwent a thorough Rees Jones-designed renovation. "They basically scraped it down to nothing and brought it back to life again," Leland said.

The district environmental board, consisting mainly of volunteers with limited scientific knowledge, approved the project subject to VPAC's acceptance of a pesticide plan, Leland said.

Unlike the district board, Leland said, VPAC's members include experts from such state agencies as Fish and Wildlife, Extension Service, Water Resource Division, Forest and Parks Department, Department of Agriculture, Transportation Department and the University of Vermont Pharmaceutical Department.

"The process is supposed to make (the effects of) additions or new courses easier for the district boards to understand," Leland said. "The district committees don't always understand the science involved in a golf course proposal."

Vermont law requires all course proposals to develop a comprehensive management plan, site-specific information on soils, hydrogeology and drainage data, information on pesticides not included in the prescreened list, and calculations of pesticide concentrations in surface and ground water.

Maryland-based Environmental & Turf Services Inc. developed Equinox's turf management plan.

"This management plan is state-of-the-art," said ETS turf agronomist Michael O'Connor, who worked with Equinox superintendent Joe Charbonneau on the report. "It relies on a variety of chemical and non-chemical controls. It estab-

lished pest infestation thresholds as part of the Integrated Pest Management program to delay pesticide application until necessary."

Conservative, worst-case risk assessments were conducted for the 12 additional pesticides listed in the proposed management plan. ETS explored three potential exposure pathways—leaching of turf chemicals to ground water and movement to drinking water wells; runoff of pesticides to surface water during storms; and percolation of potentially contaminated stream

*'Sherman Hollow points out how important neighbors' feelings still are about a project.'*

—Jim Leland

water into ground water.

"We considered pesticide mobility in soils, persistence, human toxicity and aquatic toxicity," said ETS President Stuart Cohen. "The VPAC's regulations did not provide

specific guidance in this area, so we had to integrate and refine a new kind of assessment.

"We had to have several collegial, substantive discussions with the regulatory officials since we were setting many precedents. In some cases our assumptions were reasonable, and in other cases we were overly conservative.

"But we were trying to comply with the spirit, as well as the letter of the law. And the spirit of the law is that the Vermont government wanted us to be conservative, thor-

ough and competent, but not fancy.

"I believe we gave VPAC what it wanted. This is due, in part, to the fact that we were able to work closely with VPAC during the process."

VPAC approved the final recommendations. They included normal use of glyphosate, fenarimol, metalaxyl, propamocarb, 2, 4-D, dicamba, flurprimidol, and paclobutrazol; restrictions applied to applications of bendiocarb, propiconazole, and MCPP. Isofenphos was not allowed due to aquatic toxicity concerns.



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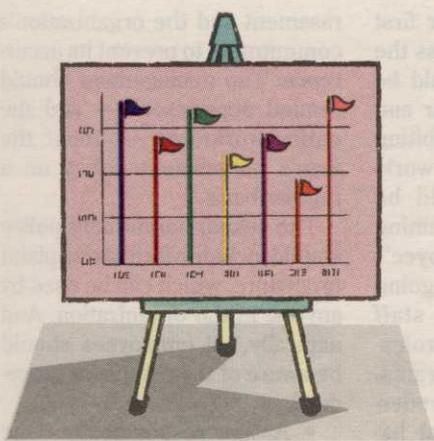
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Briefs



**AGC TAKES OVER MORRO BAY**

SANTA MONICA, Calif. — Morro Bay Golf Course is now under the management of American Golf Corporation, through an agreement with the County of San Luis Obispo. The 18-hole public facility is located in the Morro Bay State Park on California's central coast. The par-71 track plays 6,113 yards.

AGC took over the popular seaside course in mid-December 1991, and immediately began to upgrade the facility. In addition to a fleet of 72 new golf cars, AGC will also upgrade the practice range, build a golf car storage facility, remodel the snack bar and lounge area, and add a new outside deck to the clubhouse, according to Dan Ross, AGC regional vice president.

**OCHSENHIRT JOINS CASPER**

VIENNA, Va. — Billy Casper Golf Management, Inc. has hired William A. Ochsenhirt III as vice president of operations.

A certified public accountant, Ochsenhirt has been involved in the financial services industry since 1985. Prior to joining BCGM, he was executive vice president/controller for Mason International, Inc. where he managed large real estate portfolios, prepared budgets, renegotiated existing loans, and improved property operations.

According to Tommy Martty, BCGM senior vice president of operations, "Not only will we be helping club owners and managers meet their financial goals, now we can also help troubled facilities restructure their financing, negotiate with lenders, and handle work outs."

**GLOBAL CHRISTENS NEW DIVISION**

SAN FRANCISCO — Global Vision Club Consulting, a consulting, development and management company that specializes in the golf and private country club industry, has formed a new division of human resource services. Called Global Vision Executive Search & Placement, the division will concentrate on serving clients in the Western United States and in Pacific Rim and Southeast Asian countries.

According to President Nick Carter, "Demand drove the formation of this division in our company, particularly from off-shore clients in need of specialized golf industry personnel."

The division will focus on search and placement services for golf course developers, owners, management companies, resort owners and member-owned clubs, but will also provide the additional services of outplacement consulting, human resource planning and evaluation, and management, leadership and sales training.

# AGC adds two Ariz. courses and a VP

*Pillsbury appointed senior VP of field services for mgt. company*

SCOTTSDALE, Ariz. — American Golf Corp. has acquired two area courses: the new Ancala Country Club located on the north-east edge of the city, and Arrowhead Country Club, a six-year-old private club located in Glendale.

Ancala Country club became an AGC property in August and opened in October. Arrowhead Country Club became an AGC property in December.

"Ancala and Arrowhead will enhance the overall prestige of the AGC-managed courses and, at the same time, will provide yet another opportunity to demonstrate our commitment to quality and service," said Ron Johnson, president and chief executive officer of AGC.

The purchase of Ancala and Arrowhead Country Clubs brings the total of AGC-operated golf facilities in Arizona to seven.

Ancala Country Club is located at the end of Via Linda Drive on land once owned by renowned architect Frank Lloyd Wright, and is a short distance from Wright's Taliesin West. The 18-hole golf course, designed by

Perry Dye, gained a reputation as one of the best, new private courses in the Southwest. It plays to 6,961 yards from the championship tees. The par-72 track is well bunkered, and features large, undulating greens.

Tom Grant, former manager of Mission Hills Country Club in Chicago, is the general manager of Ancala; Dan Wickman is director of golf.

Arrowhead Country Club is part of a large development that turned old Arrowhead Citrus Ranch into a residential community and country club.

It's an expansive, private facility that includes a 7,001-yard Arnold Palmer-designed golf course, sport club (fitness and health center), tennis courts, swimming pool, and large clubhouse with extensive food and beverage facilities.

Arrowhead Country Club is under the direction of veteran AGC Vice President and General Manager Don Carpenter. Jeff Quinn is the director of golf.

**PILLSBURY APPOINTED SENIOR VP**

David Pillsbury has been appointed senior vice president in charge of field services for American Golf Corp.

"I was attracted to American Golf Corp. because it is an operations company committed to serving the golfer and the community. AGC is on the front line in golf, and that's where I want to be," said Pillsbury after the announcement of his promotion by AGC President Ron Johnson.

The Field Services Division of AGC is the staff behind the staff.

The Field Services Division is "the support people behind the scenes. We provide services to the operations people, including marketing, public relations, merchandising, agronomy, food and beverage and clubhouse design," said Pillsbury.

In addition to a degree from the University of California at Berkeley, Pillsbury earned an MBA from the University of Southern California. He was a driving force in the \$40-million Hot Wheels division at Mattel Toys. But he left to work as a management trainee and worked in all phases of golf operations in the Long Beach and Los Angeles areas. His first management appointment was general manager of the Westchester Golf Course; his second appointment was director of practice centers.

# GolfCorp. launches new wholesale venture

DALLAS — GolfCorp, a large operator of public-fee golf, has converted one of its pro shops into a regional discount center for golf merchandise, equipment and other accessories.

Moving into the wholesale arena, GolfCorp has remodeled and enlarged the pro shop at Chuck Corica Golf Complex — formerly named Alameda Municipal Complex — in Alameda Calif., to make it a discount outlet. Customers will have access to quality name-brand golf merchandise, such as Titleist, Hogan, Diawa and Power Bilt, offered at low wholesale prices.

GolfCorp executives are positive about the

outcome of restructuring Corica's pro shop, which also will serve as an outlet for five other area GolfCorp pro shops to unload unsold inventory. The company anticipates high sales at Corica, projecting approximately \$750,000 for 1992 and \$1 million for 1993.

"We are launching this concept in an effort to remain at the forefront of catering to today's public golfer," said Bob Husband, GolfCorp's chairman and president. "We also strongly feel that we can recapture some market share and build pro shop revenues by going head-to-head with the wholesale and discount golf merchandisers."

The Corica pro shop will be a test site for the new concept, as future plans call for other discount pro shops to be opened in states where GolfCorp operates more than five facilities, namely Philadelphia, Texas and southern California.

Additionally, Corica is one of GolfCorp's first pro shops to feature the company's system-wide membership program — Buyer's Access/Golf Access — providing members with significant pro shop savings, as well as numerous travel and golf benefits. Buyer's Access/Golf Access was launched in February at eight courses in Philadelphia, five in Texas and eight in California.

# CCSI to handle marketing for Mass. golf club

DENVER, Colo. — Country Club Services, Inc. has signed a contract to handle marketing and sale of all memberships at Ipswich (Mass.) Country Club.

Ipswich Country Club is owned by an investor group headed by principals based in New York. It boasts an 18-hole championship course designed by Robert Trent Jones as well as a 52,000-square-foot clubhouse.

The country club is located in a high-end residential subdivision containing 235 lots, with homes in the \$500,000-plus range.

According to Frank Evans, president of CCSI, "From the viewpoint of the physical attributes, including the course, clubhouse and setting, Ipswich Country Club has tremendous potential.

"Importantly, the owners... are keenly aware of how important strong membership marketing and sales are to the success of the overall venture."

CCSI was also recently retained to manage the operations of Terradyne Resort Hotel and Country Club outside of Wichita, Kan., after that property was taken back by the lender.

# Tax issues take center stage at NCA Leadership Conference

COLORADO SPRINGS, Colo. — Whether private clubs should be considered tax-paying or tax-exempt organizations will be a key topic addressed at the National Club Association's next Club Leadership

Conference, being held at the Broadmoor Club in Colorado Springs, Colo., May 6-8.



*'Club officials are finding tax issues to be an increasingly important component of club operations.'*

— NCA VP Gerald Hurley

Conference, being held at the Broadmoor Club in Colorado Springs, Colo., May 6-8.

According to NCA Executive Vice President Gerard Hurley, "Club officials are finding tax issues to be an increasingly important component of club operations. NCA has developed guidelines which will greatly assist clubs in evaluating the ad-

vantages and disadvantages of each tax status."

Other topics to be addressed at the three-day conference include how to analyze private status rights and admission processes

in today's political environment; director and officer roles, responsibilities, and liabilities; and environmental liability and compliance.

For registration information contact Debbie Sherman or Linda Altobell by phone, 202-625-2080 or fax, 202-625-9044.

Space is limited.

# Sexual harassment becoming a matter of growing

By Richard Ensmann Jr.

With sexual harassment a growing issue in the workplace, there's a growing belief among individuals at every level of business and industry that workplace behavior must meet the same standards of respect and decorum as any other public behavior.

Gone are the days when a manager or employee could make a sexual provocative or embarrassing comment to a co-worker, with the certainty that he or she would be free from accountability for the remark.

Laws and regulations governing sexual harassment in the workplace are still relatively young, and will evolve further in the years ahead.

But today's laws, as well as today's widely accepted business ethics, prohibit unwanted sexually oriented behavior in the workplace.

And make no mistake about it: sexual harassment can cover broad ground.

Harassment can include both overt and implicit demands placed by one individual upon another. It can include offensive verbal behavior, as well as non-verbal behavior.

It can include actions taken by members of either sex, and by individuals holding any position. It can even cover a hostile work environment.

Put simply, any conduct of a sexually oriented nature that interferes with an employee's work or creates an offensive work environment can be considered harassment.

## SOME EXAMPLES

Let's examine some of the more common forms of sexual harassment.

While this list is not intended to be all-inclusive, it should help summarize a variety of the questionable forms of conduct which can find their way into the workplace:

- Casual comments. Casual, sexually oriented comments directed toward an individual, or made in the presence of an individual, are probably the most common form of harassment. These comments might involve an individual's clothing, perfume or cologne, appearance, other physical characteristics, or personal habits. Or they might involve the use of derogatory nicknames (such as "honey" or "babe"), obscene or offensive humor, slang, or other provocative vocabulary.

- Offers and demands. While possibly less common, this behavior tends to be more explicit. It can include unwanted requests for dates or participation in personal and social activities. It can include gestures and requests that physically "corner" an individual in the workplace. And it can include comments suggesting that

advancement in the workplace may result from an individual's submission to sexual advances or favors.

- Nonverbal behavior. Sexual harassment is not limited to verbal comments. Obscene gestures, attempts at inappropriate physical contact, and even extreme eye contact can be considered harassment. So can the delivery of personal notes, letters, e-mail messages, and gifts.

- Physical contact. Touching, grabbing and clutching of another

individual is harassing behavior. So are attempts to force an individual into a private location, or maintain unwanted physical proximity with an individual.

## WHAT CAN YOUR COMPANY DO?

Sexual harassment will continue to emerge as a prominent issue in the workplace of the 1990s. What can you do to help your firm address the issue and meet its responsibilities toward employees concerned about harassment?

- Make prevention your first step. As you seek to address the issue, your first step should be the development of a clear and unambiguous policy prohibiting sexual harassment in the workplace. The policy should be supplemented with training given during every employee's orientation, as well as ongoing training offered during staff meetings and in-house professional development programs. Every employee should understand the nature of sexual ha-

arrassment and the organization's commitment to prevent its occurrence. Top management should remind supervisors — and the entire workforce — about the firm's harassment policy on a regular basis.

The sexual harassment policy should include a formal complaint procedure, which can be used by anyone in the organization. And naturally, all employees should be aware of the complaint procedure.

- Assign responsibility. One

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Gifu, Japan

David Fleming, Project Manager  
Mt. Woodson Country Club  
Ramona, California

Bob Adler, Dir. of Golf Course Operations  
Andy Adler, Golf Course Superintendent  
Seasons Ridge Golf Course, Eldon, Missouri

Ian Grimshaw, Golf Course Superintendent  
Coolangatta Tweed Heads Golf Course  
Queensland, Australia

David A. Hein, Golf Course Superintendent  
"The Experience at Koele"  
Lanai City, Hawaii

# concern for all sectors of the golf course industry

individual in the organization — perhaps the personnel director or another trusted manager — should be assigned responsibility for monitoring your harassment policies and training efforts. This individual should also keep abreast of new legislation on harassment.

This individual might also periodically review materials developed by the Equal Employment Opportunity Commission and other federal and state agencies about the issue, and consult with

legal counsel on any internal questions which might arise about harassment. Since harassment has been considered a form of sex discrimination by the courts, your Equal Employment or Affirmative Action officer (if you have one) might be the logical candidate to handle matters related to sexual harassment.

- Address allegations. Any allegation of sexual harassment, whether it's made through the formal complaint procedure or through an informal channel,

should be addressed immediately. Your designated personnel officer should confidentially interview the individual making the complaint. The interview is strictly a "fact gathering" exercise, and your personnel officer should attempt to determine the circumstances that gave rise to the complaint. He or she should determine whether any witnesses observed the incident, and identify all of the individuals who may have contributed to the problem. Finally, the personnel officer

should inquire about other instances of alleged harassing behavior the employee knows about.

Generally, the personnel officer should also interview the individual (or individuals) alleged to be responsible for the incident. Again, the purpose of the interview is strictly to gather facts. The personnel officer should make the same inquiries he made in the earlier interview, and use whatever information is obtained to supplement what he has already learned about the incident.

- Protect your employees and your company. In investigating an allegation of sexual harassment, you and your personnel officer need not — and should not — act as judge and jury. As you interview the individuals involved, and collect additional information, remember to put what you learn in writing. And while you may note a number of wide-ranging observations offered by the individuals involved, be sure to distinguish factual information from rumor and hearsay.

In harassment has occurred, your immediate responsibility is to see that it stops. Then you must confront the more troublesome issues: Should the offending employee be disciplined and, if so, how? Should the employee who suffered harassment be compensated in some way?

Unless the information you gather provides clear evidence that harassment occurred, be cautious about drawing final conclusions about the incident or disciplining an employee for harassment. If you have any doubts about the propriety of specific disciplinary action — or if you are considering compensation to the offended employee — consult your attorney before proceeding further.

Because sexual harassment often occurs out of view of the full workplace, you may sometimes find yourself unable to discipline an offending employee or resolve the allegation to your full satisfaction. In such circumstances, keep in mind that your investigation is still valuable; your willingness to pursue all allegations of harassment is, in and of itself, a strong deterrent to future harassment.

- Continue to Educate. If you encounter a sexual harassment allegation in the workplace, don't hesitate to use the occasion to remind supervisors of your policies on this issue — and ask them to remain on the alert for harassing behavior in the future.

Above all, remember that the responsibility for dealing with this complex issue rests with everyone in the organization.

The CEO must insist on a work environment that supports respect and professionalism.

The personnel office must insure that appropriate policies on harassment are in place, and that employees understand the procedures for filing harassment complaints.

Supervisors must insure that policies are properly administered on a daily basis.

An effective sexual harassment policy helps you prevent legal problems and morale problems. But its ultimate value is much greater: it helps you build a workplace conducive to the highest standards of productivity and morale.

## BENTGRASS

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\*Providence and SR 1020 are protected under the U.S. Plant Variety Protection Act.

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- Wright Stephenson & Co.**  
Seven Hills, N.S.W., Australia 2147  
(02) 674-6666



Joseph Bucchanio, Golf Course Supt.  
Maplegate Country Club  
Bellingham, Massachusetts



Steven A. Nash, Golf Course Superintendent  
International Town & Country Club  
Fairfax, Virginia



James Brown, Golf Course Superintendent  
Shreveport Country Club  
Shreveport, Louisiana

## Well-known Atlanta course converts from private country club to daily-fee facility

ATLANTA — Lakeside Country Club, one of Atlanta's well-known private country clubs for 30 years, has opened to all golfers for daily-fee play.

LinksCorp, a golf management company based in Northfield, Ill., purchased Lakeside from its former members and intends to make it one of the best championship daily fee courses in the Southeast.

"We have committed more than \$1 million immediately to return the golf course to championship condition, renovate the clubhouse,

add a new fleet of golf carts and make other site improvements," said Ben Blake, LinksCorp's chief executive officer.

In addition to the capital improvements, Blake recently announced the appointment of Lakeside's senior management staff.

David B. Fleming started immediately as general manager. For the past five years, Fleming was general manager of Kemper Lakes Golf Club in Hawthorne Woods, Ill.

Allen Chandler is Lakeside's new

head golf professional. A class A member of the PGA, he most recently was at Westmoreland Country Club in Wilmette, Ill., and PGA National in Palm Beach Gardens, Fla.

Bobby Miller, LinksCorp director of agronomy, will manage all aspects of course maintenance and renovation. Prior to joining LinksCorp, Miller was head superintendent at Harbour Town Golf Links in Hilton Head Island, S.C., and later was director of course maintenance for Stokes-O'Steen in Jacksonville, Fla.

## Poquoy Brook gains new manager

LAKEVILLE, Mass. — Poquoy Brook, one of the top public courses in the Massachusetts, is now under the management team of Basil Bartlett and Charlie Dickow.

The two are anything but strangers. Dickow owns and operates another Lakeville track, Heritage Hill — and Bartlett built Heritage Hill before selling it to Dickow a few years ago. Bartlett, who has built many golf courses in the Northeast, considers Dickow the "best agronomist" he's ever met.

The duo had been in the market for some time, actively pursuing the owners of Willow Bend in Cotuit.

But that fell through when Paul Fireman, chairman of the board at Reebok, beat them to the punch. Bartlett and Dickow soon learned of Poquoy Brook's availability, however, and snapped it up.

Changes are planned at Poquoy, but not too many.

"We do not want to make wholesale changes to a magnificent golf course," Bartlett told the Fall River *Herald News*. "We have some ideas to make it a little more enjoyable."

Dickow plans to make the greens a bit smaller and quicker. The duo will also install lights for the practice area. Later, the par-5 18th may see some changes.

"If we expand the clubhouse," Bartlett explained, "we would probably move the 18th green closer to the stream and then expand the stream into a pond and make it a tremendous par 4."

## GCN seminar to focus on public facility profits

YARMOUTH, Maine — *Golf Course News* has announced a new conference targeting profitability for public golf facilities.

"Public Golf '92" will be held Nov. 1-3 at Oak Brook Hills (Ill.) Hotel and Resort.

"As the public demand for golf increases there are many opportunities to develop and expand daily-fee and municipal courses. The challenge for course managers is to find ways to profitably develop, manage, maintain, and market their facilities," said Mark Leslie, managing editor of *Golf Course News*.

The conference program will provide a comprehensive look at management of public courses, according to Leslie.

Topics will include trends in public golf facilities; profit-minded planning, feasibility, expansion and construction; financing; approval processes; managing and maintaining the operation; and marketing strategies.

For more information call the United Publications conference group manager, Rebecca Quinlan, at 207-846-0600.

## CDI to manage Sky Meadow CC

Dallas-based Club Development Interests, an affiliate of the Hyatt Corp., has been retained by Par Management Inc. to manage Sky Meadow Country Club in Nashua, N.H.

The addition of Sky Meadow brings the number of CDI-managed clubs to 22, with a heavy concentration along the Eastern seaboard.

Sky Meadow is 35 miles northwest of Boston and will be operated as a high-end, semi-private club. In 1991, *Golf Digest* rated Sky Meadow as the top course in New Hampshire.

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Cheyenne's dark green color and uniform texture make it the ideal grass for golf fairways, parks, playing fields and lawns.

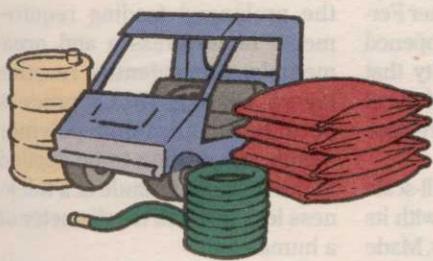
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## Briefs



## LENIE PROMOTED AT RAIN BIRD

GLENDORA, Calif. — Dirk Lenie has been appointed managing director of sales and marketing for the Golf Division of Rain Bird Sales Inc., a manufacturer of irrigation products based here.

Lenie has been with Rain Bird for 11 years. He will be responsible for leading the marketing sales specification and service effort of the Golf Division.



Dirk Lenie

In addition, Bob Finkenbiner has been appointed product manager at the Rain Bird Golf Division and June Kubota has joined the Golf Division as a marketing assistant.

## BLUEGRASS GRANTED PROTECTION

TANGENT, Ore. — Pickseed West Inc. announced that Bronco Kentucky bluegrass has been granted Plant Variety Protection number 8900001 by the U.S. Department of Agriculture.

According to Pickseed's director of research, Dr. Jerry Pepin, Bronco is a unique bluegrass variety developed with the improved heat and drought tolerance, disease resistance, and rapid establishment necessary to perform well under the warmer conditions of the Transition Zone.

Bronco is also very cold tolerant and well-adapted to the traditional northern bluegrass areas, where it demonstrates early spring green-up characteristics, Pepin said.

## KALO TEAMS UP WITH M&amp;R

KANSAS CITY, Mo. — Kalo Inc. of Overland Park, Kan., has appointed M&R Specialty Sales Co. of Atlanta as a sales representative.

Included in the product line will be Hydro-Wet Turf Wetting Agent and Specialty Products sold to the turf and horticultural markets.

Chuck Champion, sales manager for Kalo, said Mike Jones and his organization will cover the states of Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina and Tennessee.

## MILES ADDS TWO

KANSAS CITY, Mo. — Stephanie Gotberg has joined the Agricultural Division of Miles Inc., as the Chicago-area sales representative for the division's line of specialty chemicals used in the commercial lawn and pest-control industries.

Humberto Lopez has joined Miles' AG Division as the southern California and Arizona-area sales representative.

The AG Division of Miles manufactures and sells four product lines: specialty chemicals, crop-protection chemicals, animal health products and consumer household products.

## HydroJect gets high marks from supers

## Water injection device aerates greens without interrupting play

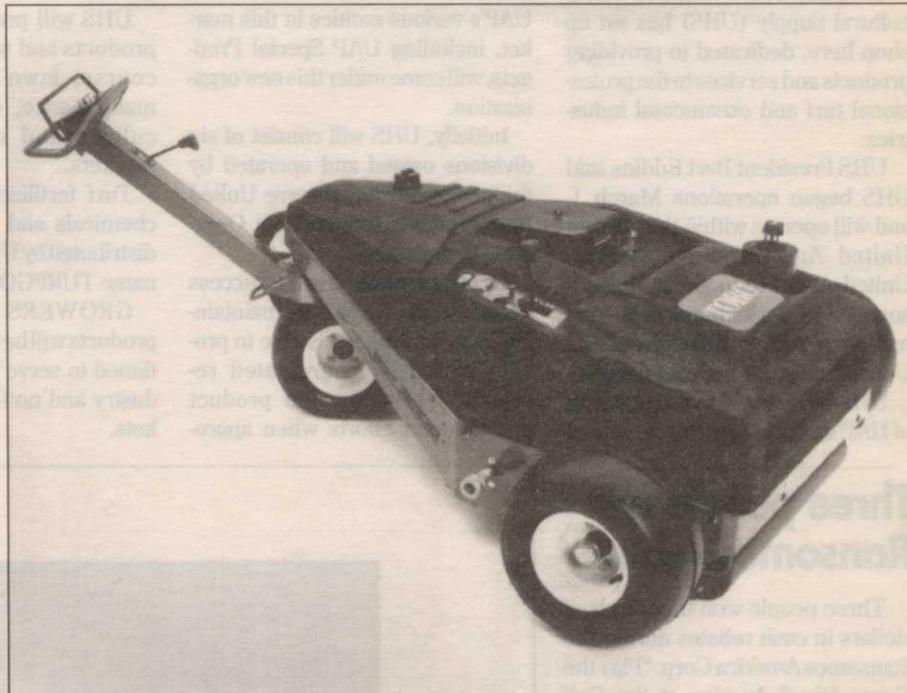
After a year of testing at golf courses the country over, superintendents give high marks for the breakthrough technology of the Toro HydroJect 3000.

The machine aerates by high-pressure streams of water, leaving no cores to clean up and preventing the need to shut down the course.

Superintendents have reported that while they once aerated nine holes every week.

Dale Kuehner, superintendent at Colony West Country Club in Florida, said the biggest advantage of using the HydroJect was savings. He said with traditional aeration play would drop off. The lost revenues was about \$10,000 a week. Last year he used the machine once a month throughout the year, then needed only one core aerification during the summer. So the HydroJect saved \$40,000 last year — "the biggest reason we bought the machine."

The machine's advantages were said to be playability at Dr. Harold F. (Chip) Howard's Sun City West, Ariz.; prevention of stress on the poa annua greens at Mike Heacock's American Golf Corp. courses in the Northeast and West Coast; cure for hydrophobic greens at Richard Eichner's Discovery Bay Country Club in California; doubled infiltration rates in one summer at Fred Biggers' Greenville (S.C.) Country Club; speed at Ray Avery's Quail Hollow Country Club in North Carolina; greater root depth at Lee McLemore's The Country Club of Birmingham (Ala.), Tom Werner's Colonial Country Club in Texas and John Katterheinrich's Interlachen Country Club in Minnesota.



Toro HydroJect 3000 aerator

## Toro takes its show on the road

The Toro Co. Commercial Products Division is taking its show on the road this year, showcasing its new turf vehicles line in what the company is calling a Rodeo.

Rick Cairns, Commercial Products Division marketing manager, said two semi-trailer trucks will tour the country from July through December, exhibiting the vehicles.

The trucks will start in the North and work south and west as the season progresses.

"Our main function is targeted at the (Cushman) Turf-Truckster market," Cairns said. "One strategy is to use both Cushman and Toro attachments. The only way superintendents will believe it's possible is to use it."

Cairns said the multi-purpose utility vehicles, with their three variations of engines, will tour with the classic attachments such as sprayer, top dresser and spreader — and "other special attachments we'll announce later."

## Seaton named chairman of Fertilizer Institute

ORLANDO, Fla. — Charles E. Seaton, senior vice president of Chicago-based Vigoro Corp., has been elected to a one-year term as chairman of The Fertilizer Institute. The election was conducted during the Institute's recent annual meeting, an event which drew more than 1,000 industry representatives to Orlando.

TFI members also tapped a vice chairman, Charles E. Childers, chairman/president and chief executive officer of the Potash Corp. in Saskatoon, Saskatchewan. Gary D. Myers of Washington, D.C., was re-elected president and chief staff officer for the Institute.

"Charlie Seaton's extensive business experience in the fertilizer industry will be a real asset to TFI during 1992," said Myers. "We will benefit from Charlie's knowledge and expertise."

Others elected to the executive committee were: Richard H. Block, president of Agrico Chemical Co. in New Orleans, La.; Fritz Corrigan, president of the fertilizer division at Minneapolis-based Cargill, Inc.; Robert W. Honse, executive vice president of agricultural operations for Farmland Industries, Inc. in Kansas City; William M. Imhoff, crops division manager for GROWMARK, Inc. of Bloomington, Ill.; Charles F. Merrill, group

vice president of agricultural products for Unocal Corp. in Los Angeles; and Allen C. Merritt, vice president of the fertilizer and chemical division for Gold Kist, Inc. in Atlanta.

Immediate past board chairman Charles R. Gibson, president of FirstMiss Fertilizer Inc. in Jackson, Miss., will serve as *ex-officio* member.

Other Washington staff officers who were re-elected: Ron Phillips, vice president, public affairs; Ford B. West, vice president, government relations; and P. Whitney Yelverton, vice president, administration and secretary/treasurer.

## GCN marketing seminar on tap

The seminar "Marketing to Golf Course Facilities," sponsored by *Golf Course News*, will be held Oct. 4-6 at Oak Brook Hills Hotel and Resort in Oak Brook, Ill.

The three-day program is targeted at golf facility product and service suppliers.

"The repeat of this successful program is due to the positive response from last year's attendees," said GCN Publisher and seminar Chairman Charles von Brecht. "This year's program will provide attendees with critical information to help them market their products and services."

The seminar will focus on market needs of golf facilities and development of market strategies to meet those needs. Topics will include trend data on growth and changes in golf facilities; buying habits of golf course decision makers; and a look at com-

prehensive marketing and results-oriented sales.

The program is designed for chief executive officers, sales/marketing vice presidents and directors, sales managers and marketing communication managers in companies offering products and services for golf course facilities.

The program is also aimed at advertising media directors or account representatives for producers of chemicals, commercial mowing equipment, golf course accessories, golf cars, utility vehicles, irrigation equipment, seed and sod.

Distributors and other suppliers to golf course facilities are also urged to attend.

For more information on the conference call conference group manager Rebecca Quinlan at 207-846-0600.

## ProSelect honors representative

Jeff Bernfeld of Washingtonville, N.Y., recently received Pro Select's 1991 Outstanding Performance award.

During his first year as a Pro Select representative, Bernfeld greatly increased the sales and distribution of Pro Select's high performance Prism line in the greater New York metropolitan area.

Bernfeld was presented the award by Pro Select's national sales manager, Steve Miller, at the PGA show in Orlando.

"In a short period of time," Miller commented, "Jeff has distinguished himself as an outstanding representative for Pro Select. His commitment to product knowledge and developing customer loyalty will definitely pay dividends over time."

## United Horticultural opens in Oregon

SALEM, Ore. — United Horticultural Supply (UHS) has set up shop here, dedicated to providing products and services to the professional turf and ornamental industries.

UHS President Bert Eddins said UHS began operations March 1, and will operate within the current United Agri Products system. United Agri Products has been a supplier of agricultural crop protection products throughout the United States for the past decade.

UHS represents a restructuring of UAP's efforts in the professional

turf and ornamental markets. All of UAP's various entities in this market, including UAP Special Products, will come under this new organization.

Initially, UHS will consist of six divisions owned and operated by the geographically diverse United Agri Products Independent Operating Companies.

UHS is committed to the success of each of its divisions by maintaining local control, yet is able to provide nationally coordinated research, marketing and product development efforts when appro-

priate.

UHS will provide professional products and services to the golf course, lawn care, landscape maintenance, ornamental horticulture and related specialty markets.

Turf fertilizers, turf-protection chemicals and turf seeds will be distributed by UHS under the brand name TURFGO.

GROWERS CHOICE brand products will be expanded and positioned to serve the ornamental industry and non-turf specialty markets.

## Pursell opens new Ala. plant

SYLACAUGA, Ala. — Pursell Industries, a division of Parker Fertilizer Co. Inc., in February opened a new manufacturing facility that boasts the newest technological advancement in controlled-release fertilizer.

The company began a full-scale marketing venture in 1992 with its propriety Polyon technology. Made and developed in the United States, the Polyon brand is being introduced into the consumer turf and nursery markets, as well as the professional turf and nursery markets.

Specifically designed to meet the prolonged feeding requirements of turfgrasses and ornamentals, the patented reactive layers coating (RLC) process permits an ultra-thin polymer membrane coating to be applied to the nutrient granule at a thickness less than half the diameter of a human hair.

Polygon coating technology offers size versatility from golf greens to nursery grade; longevity, feeding from 1 to 14 months; and nutrients, with controlled-released nitrogen, phosphates and potashes.

## Three people win Ransomes rebate

Three people won thousands of dollars in cash rebates during the Ransomes America Corp. "Play the Super Nine" drawing at the Golf Course Superintendents Association of America show in New Orleans.

Winners of the Feb. 17 drawing are Jim Kelley of Newark (Del.) Country Club, \$3,000 cash rebate; Timothy Kelly of Village Links in Glen Ellyn, Ill., \$2,000 cash rebate; and George Julie of Sawmill Golf Course in Fenwick, Ontario, Canada, \$1,000. The rebates are to be applied towards the purchase of any Ransomes/Cushman/Ryan product.

Golf course superintendents were invited to enter the drawing by touring a "nine-hole course" and completing a "scorecard." Each hole featured a Ransomes America Corporation product.

## Deere video on safety offered

A nine-minute video on AMT safe operational techniques is included with each AMT626 retailed in North America. Additional copies are available from John Deere for \$15, shipping and handling included.

People should specify if they want English or Spanish.

This tape provides information about safe operation of all AMT utility vehicles. It includes many of the "do's and don'ts" for safely operating AMTs.

Schools and universities can order by phone by calling 800-544-2122.

## North American names president

EVANSVILLE, Ind. — Jim Niemeier has been named president of North American Green here.

Niemeier joined North American Green in 1986 as director of marketing when the company began manufacturing erosion control products.

He has played a major role in the firm's development.



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# AgriDyne Technologies has public offering at \$10 per share

SALT LAKE CITY — AgriDyne Technologies Inc. has made the initial public offering of 1,750,000 shares of its common stock at a price of \$10 per share.

AgriDyne develops and markets environmentally compatible bio-

tanical insecticides and plant-growth enhancement products. The firm has recently obtained product registrations from the Environmental Protection Agency (EPA) for its first products based on azadirachtin, a broad-spectrum

natural insecticide derived from the seeds of the neem tree.

The net proceeds from the sale of 1,750,000 shares will be used to commercialize and market the company's EPA-registered products, to support research, develop-

ment and commercialization of new products, to pay costs incurred in connection with EPA and state product registration, and for working capital and general corporate purposes.

The shares are being offered by

an underwriting group managed by Piper, Jaffray & Hopwood Inc. of Minneapolis and Dain Bosworth Inc. The shares will be traded in the over-the-counter market under the symbol AGRI, with quotations listed on the NASDAQ National Market System.

# Samudio and Sellmann are promoted at Jacklin Seed Co.

Jacklin Seed Co. has promoted assistant plant breeders Susan Samudio and Mark Sellmann to the positions of associate plant

breeders.

Samudio joined the Jacklin Seed Research Department in the winter of 1990 as the perennial

ryegrass breeder. With warm-season plant breeding added to her responsibilities, Samudio continues to conduct research and

development in Post Falls, Idaho, and at Jacklin facilities in Yuma, Ariz. Samudio is a graduate of Texas Tech University in crops,

and received her master's in plant and soil science at Southern Illinois University.

Sellmann, a graduate of Kansas State University in agronomy, served as a graduate research assistant while working on his master's in soil science and plant breeding at the University of Tennessee in Knoxville. Sellmann's focus will continue to be on his evaluation work with the fine fescue species, and Jacklin's tall fescue breeding program with efforts directed at the production of high quality turf varieties with improved texture, dark green color, disease and insect resistance.



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In fact, no other turf insecticide achieves faster, longer lasting control of problem pests.

But along with this power comes the tremendous responsibility to always use it properly.

After all, the beauty of your golf course isn't the only thing we are working hard to preserve.



## DICO offers radial tires for golf cars

CLINTON, Tenn. — DICO Tire, Inc., a division of the Dyneer Corp., has started production of the industry's first radial tire for golf carts.

DICO's radial comes in answer to user demands for longer wearing, more fuel efficient tires and joins a full line of DICO golf cart tires designed for specific needs, according to Mark Bright, DICO's product marketing manager.

More hard-surface cart paths are being constructed. These cart paths create a greater need for tire wear resistance.

At the same time, energy efficiency is improved with the radial tire. "While gasoline-powered cart users may consider this a minor point," Bright said, "battery-powered cart users say that any improvement that will increase running time between charges is a definite advantage."

## EPA gives thumbs up to herbicide

DES PLAINES, Ill. — Sandoz Agro, Inc. has received Environmental Protection Agency registration for Barricade WG, a pre-emergence herbicide for the lawn care and golf course markets, according to the company.

Barricade WG claims season-long control of key weeds such as crabgrass and goosegrass with a single application.

Other key weeds controlled by Barricade WG include annual bluegrass, common chickweed, henbit, knotweed, prostrate spurge, rescuegrass, shepardspurge and foxtails.



Columbia ParCar Utilitruck

## Columbia ParCar introduces new utility vehicle

ColumbiaParCar has introduced the Utilitruck and all-weather Cab.

The Columbia Utilitruck is built with a strict mission to improve productivity, stand up to industrial use and reduce operating costs.

The Utilitruck has an extended wheel base centered under the payload platform for optimum safety and stability. With the narrowest body in its class and its tight 18-foot turning circle, Utilitruck works in small areas yet features a cargo capacity of 12.5 cubic feet.

The new 2-cycle gasoline engines have been redesigned for higher

compression ratios and improved fuel/air combustion, which generates 15 percent more horsepower with greater fuel economy. The new combustion chamber, in conjunction with a new CleanAir Plus engine lubricant, eliminates smoke, spark plug fouling and dramatically extends engine life.

Driver visibility, ventilation and weather protection top the list of features for the new all-weather cab. It is color impregnated and made of impact resistant materials that will not dent, rust or crack. A light-colored UV stabilized cab roof incor-

porates the RainDrain suntop. Narrow steel pillars and large windows provide the best driver protection and visibility available in the market.

An exclusive feature of the Utilitruck cab is its pop-open windshield and rear vents. Cab options include front windshield wipers, interior dome light, automotive rearview mirror and easily removable, lightweight doors with sliding or stationary windows.

Utilitrucks are available with steel or wood sides and tailgate, standard or extended flatbed, and manual or hydraulic dump bed.

Contact Columbia ParCar Corp., P.O. Box One, Deerfield, Wis. 53531; 608-764-5474.

CIRCLE #301

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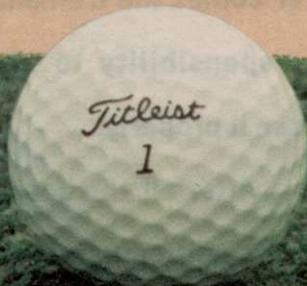
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Putter creeping bentgrass featured at MeadowWood Golf Course.

CIRCLE #154

## Clippings removal problem solved

NEW HOLLAND, Pa. — The problem of what to do with grass clippings has been solved with a new attachment for the Millcreek Model 75TD and 50TD top-dressers.

The Millcreek Grass Clippings Distributor attaches to the top-dresser and provides an adjustable pattern for spreading grass clippings on fairways and roughs. Clippings are dispersed so finely they are hardly noticeable. Many experts feel such finely distributed clippings provide valuable nutrients for turf improvement.

In addition to extending the use of the top-dresser, the Distributor reduces costs and inconvenience of dumping clippings. The company says the Grass Clippings Distributor will be especially useful as more communities ban the dumping of clippings in landfills and incinerators.

The unit has been tested at several golf courses and with no noticeable accumulation of clippings. Several superintendents reported an improvement in roughs as a result of finely spread clippings.

For more information contact John Bentley, Millcreek Manufacturing, 112 S. Railroad Ave., New Holland Pa. 17557; 717-355-2446.

CIRCLE #302

## Trencher ideal for golf course use

LEHIGH ACRES, Fla. — Kwik-Trench introduces Model K-T 2400 Double V-Belt Drive Disc Blade Trencher.

Ideal for the golf course superintendent, it digs 2-, 3- or 4-inches wide, is adjustable to 12 inches deep, 20 to 30 feet per minute, and is powered by a 7.5-horsepower Wisconsin Robin engine.

Two v-belts eliminate excessive vibration and PTO damage due to operator abuse in rocky digging soils and large surface roots.

For more information, contact Kwik-Trench, 205 Homestead Road, Lehigh, Fla. 33936; 800-327-4997.

CIRCLE #303

## Quieter, lightweight backpack blower now available from Echo

LAKE ZURICH, Ill. — A new, quieter, 70 dba, backpack power blower — the PB-4600 — is being introduced by Echo Inc.

The 22-pound backpack blower has been designed with more comfort elements than ever before: a new backrest design and adjustable shoulder straps.

A tube-mounted throttle control offers better directional control of the blower pipes with one-

hand operation.

Similar in performance to Echo's PB-400E, the PB-4600 also incorporates a commercial 44 cc engine to provide a maximum air speed of 180 mph and maximum air volume of 370 cfm.

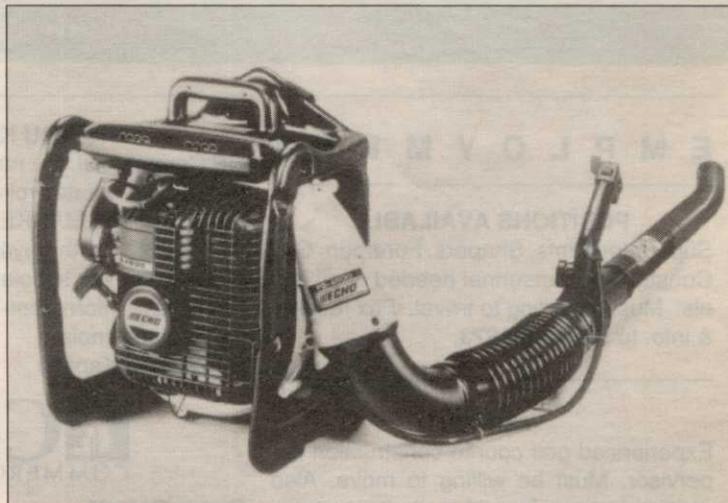
The two-quart fuel tank offers extended operation time, and a purge-equipped, all-position adjustable diaphragm carburetor allows for fast, easy

starts and dependable performance.

The rugged frame of the PB-4600, while protecting key engine components, offers easy access for maintenance and repair.

For more information on the PB-4600, or any other Echo Inc. product, contact Echo Inc., 400 Oakwood Road, Lake Zurich, Ill. 60047; 708-540-8400.

CIRCLE #304



Echo PB-4600

## LESCO offers new low-growing turf

CLEVELAND — Turf managers looking for a low-growing turf-type perennial ryegrass with excellent performance may want to check Legacy, a new variety from LESCO, Inc.

Legacy's dark green color, fine leaf texture, very good density and dwarf growth rate make it an ideal choice for use on golf course fairways, particularly for overseeding dormant warm-season greens, tees and fairways. It is also the right choice for athletic fields, home lawns, parks or any area where a fine-textured, wear tolerant, quick recovery turf is desired.

In numerous turf trials Legacy has demonstrated improved mowing quality, density and tolerance to heat and drought conditions. Turf managers will appreciate Legacy's slower vertical growth rate and overall lower growth habit as compared to many other turf-type perennial ryegrasses on the market.

Legacy has improved resistance to leaf spot, brown patch and stem rust and, because of its high level of endophyte (94 percent), exhibits excellent resistance to above-ground feeding insects. Legacy is broadly adapted as a premium turfgrass in cool humid and cool arid zones of the United States and performs exceptionally well in winter overseeding of dormant bermudagrass throughout the south.

Contact LESCO at 800-321-5325.

CIRCLE #305

## Yamaha utility vehicle versatile

The new Yamahauler utility vehicle is designed to be versatile enough to handle all types of light hauling.

Featuring box sides and a tailgate that can be unlatched and converted into a flatbed in less than 90 seconds, the Yamahauler boasts a four- by four-foot cargo area with 13.4 cubic feet of cargo space and a box load capacity of 500 pounds.

Its high-tensile strength tubular steel frame features electrodeposition epoxy painting, Metton body and aluminum bed.

It is powered by an 8.5-horsepower, four-cycle OHV engine, and the bench seat raises to easily service the engine.

CIRCLE #306

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CIRCLE #155

# Golf Course Marketplace

To reserve space in this section, call Simone Marsteller, 813-576-7077

## EMPLOYMENT

### POSITIONS AVAILABLE

Superintendents, Shapers, Foremen, Golf Construction personnel needed at all levels. Must be willing to travel. Fax resume & info. to **904-646-1873**.

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Experienced golf course construction supervisor. Must be willing to move. Also wanted — experienced equipment operators. Fax resume.

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### GOLF COURSE CONSTRUCTION

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**Carol Howard  
KEC Golf**

**200 South Los Robles, Suite 400  
Pasadena, CA 91101-2431**

All replies will be held in strict confidence.

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- 2) Wichita, Kansas



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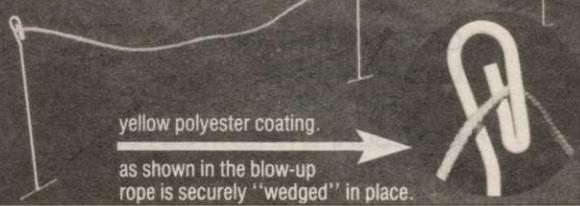
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NEW LITERATURE

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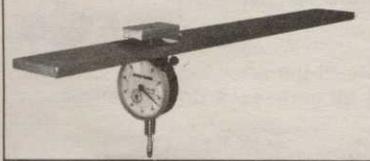
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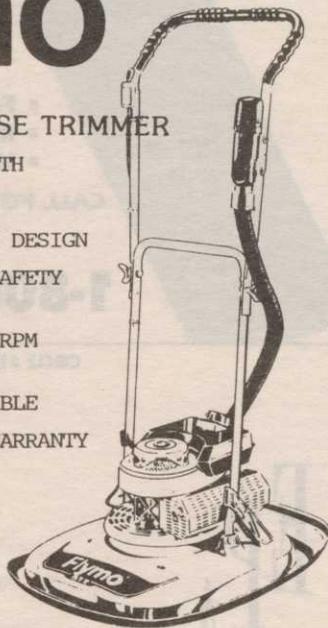
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CIRCLE #165

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Great Southern SAVINGS BANK



CIRCLE #167

## USGA research book highlights environment

Continued from page 1

than emotional analysis of the environmental effects of golf courses and should prove invaluable to those debating golf course development.

"It's a balanced account of the available information out there," said Green Section National Director Jim Snow.

The 950-page book is based on Duluth, Minn.-based Spectrum Research's review of pertinent scientific literature (not including articles from general interest magazines) that was reported to the USGA's Turfgrass Research Committee two years ago.

That report, entitled "Environmental Issues Related to Golf Course Construction and Management: A Literature Search and Review," simply listed available information.

It also suggested areas needing more research. The research committee has used the report to decide what studies the USGA should fund.

The new, easier-to-read book is divided into chapters — such as wildlife, water use and pesticide applications — and includes an extensive reference section at the end of each chapter.

The authors also updated the textbook to include important findings, like the Cape Cod and Pennsylvania State University ground water studies, that were not available in 1990, Snow said.

"The book should be very popular with anyone interested in the environment and golf courses," said Snow, adding that it will be distributed to libraries at colleges and universities with turf management programs, as well as state and federal environmental agencies.

"Every golf course superintendent should have a copy. Like any textbook, it contains more information than you'd ever need. But it's a great source when you need a reference to back up your argument."

The book includes some agricultural pesticide-fate studies, since turfgrasses and golf courses have not been studied as extensively, Snow said.

While the agricultural test results may cause concern, they actually represent a worst-case scenario since golf courses are blessed with a permanent cover crop (turf) that helps buffer leaching and runoff losses, he added.

Snow said the golf industry will gain credibility by including potentially negative, as well as positive, information.

He points to the original report, which was sent to many environmental groups, including the Sierra Club and Audubon Society.

"It hasn't backfired on us at all," Snow said. "We've received nothing but compliments about the original report."

The book's release, less than a month before the U.S. Open Championship, is convenient, said Brian Lewis of Lewis Publishers Inc., the environmental publishing house printing the book.

It will be on display at the USGA's environmental tent during the championship, scheduled for June 18-21 at Pebble Beach (Calif.) Golf Links, Lewis said.

The USGA (telephone 908-234-2300) and Lewis Publishers (800-272-7737) are also taking orders. The book costs \$65.

**April**

5-7 — National Golf Foundation seminar on Golf Course Operations in the '90s - Issues Affecting the Future of Successful Operations in Newport Beach, Calif. Contact Roger Yaffe at 407-744-6006.

6-7 — Golf Course Superintendents Association of America Seminar on Landscape Design & Plant Materials in Bolton, Mass.\*

9 — Water conservation and quality seminar in Sanford, Fla. Contact Seminole County Extension Service at 407-323-2500 ext. 5559.

9 — Florida Golf Course Superintendents Association Everglades Chapter Spring Seminar at Bonita Bay. Contact David Fry at 813-624-6204.

13-14 — Southeastern Turfgrass Conference at Tifton, Ga. Contact 404-769-4076.

22-23 — Club Industry West at Long Beach, Calif. Contact Karen Reynolds-Feld at 800-541-7706.

28-30 — Agri-business computer conference in Sanford, Fla. Contact Seminole County Extension Service at 407-323-2500 ext. 5559.

**May**

2-6 — American Society of Golf Course Architects annual meeting on Long Island, N.Y. Contact 312-372-7090.

3-5 — NGF seminar on Public/Private Joint Ventures in Golf Course Development in Irving, Texas. Contact Roger Yaffe at 407-744-6006.

4 — West Texas Golf Course Superintendents Association meeting in Midland. Contact Pam Deeds at 806-354-8447.

6-9 — National Club Association Leadership Conference in Colorado Springs, Colo. Contact 202-625-2080.

11-13 — Crittenden Golf Development Expo in Palm Springs, Calif. Contact 800-443-8318.

19 — Diseases of ornamental plants seminar in Sanford, Fla. Contact Seminole County Extension Service at 407-323-2500 ext. 5559.

28-29 — Pacific Rim Resort & Golf Executive Conference in Honolulu. Contact 415-453-1184.

**June**

4-6 — Club Industry East at New York. Contact Karen Reynolds-Feld at 800-541-7706.

7-9 — NGF seminar on Alternative Golf Facilities — The Development and Operation of Ranges and Non-regulation Golf Courses in Falls Church, Va. Contact 407-744-6006.

23 — West Texas Golf Course Superintendents Association meeting in Lubbock. Contact Pam Deeds at 806-354-8447.

28-July 2 — American Seed Trade Association Annual Convention in Washington, D.C. Contact 202-638-3128.

**July**

1 — Cornell Turfgrass Field Day at Pine Island, N.Y. Contact 914-343-1105.

23-25 — American Sod Producers Association Summer Convention & Field Days in Chicago. Contact 708-705-8347.

26-28 — International Lawn, Garden and Power Equipment Expo '92 in Louisville, Ky. Contact 800-558-8767.

Continued on page 61

# Golf Course Marketplace

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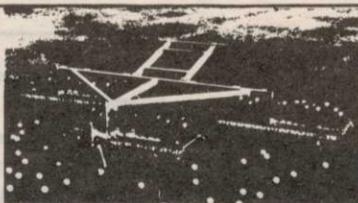
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CIRCLE #176

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CIRCLE #169

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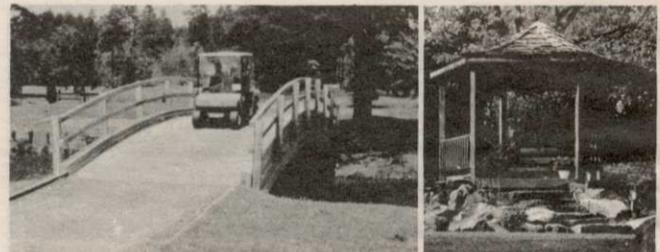
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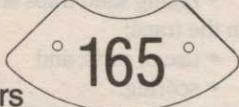
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CALENDAR

Continued from page 60

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CIRCLE #178



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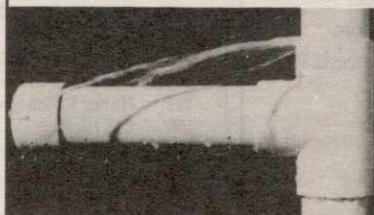
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## August

2-4 — Georgia Golf Course Superintendents Association summer conference at Pine Mountain. Contact 404-769-4076.

3 — West Texas Golf Courses Superintendents Association meeting in Canyon. Contact Pam Deeds at 806-354-8447.

9-12 — 47th Annual Soil & Water Conservation Society Meeting in Baltimore. Contact 515-289-2331.

17-19 — Golf East Expo in Orlando, Fla. Contact 800-443-8318.

22 — Profesional Golfers Association of America's National Golf Day. Contact Julius Mason at 407-624-8444.

## September

20-22 — National Golf Foundation seminar on Public-Private Joint Ventures in Golf Course Development in Newton, Mass. Contact Roger Yaffe at 407-744-6006.

20-23 — Florida Turfgrass Association annual conference and trade show in Jacksonville. Contact 800-882-6712.

## October

3-6 — Golf '92 International Golf Trade Fair in Dusseldorf, Germany. Contact 312-781-5180.

15-19 — Congress for Recreation and Parks in Cincinnati. Contact Pat Phillips at 703-820-4940.

21-23 — National Golf Foundation Golf Summit in Orlando, Fla. Contact NGF at 407-744-6006.

## November

1-3 — Georgia Golf Course Superintendents Association annual meeting on St. Simons Island. Contact 404-769-4076.

10-13 — New York State Turfgrass Association Annual Turf and Grounds Exposition in Rochester. Contact 800-873-TURF.

29-Dec. 2 — Canadian Turf Grass Convention and Trade Show in Halifax, Nova Scotia. Contact Chuck Desveaux at 416-602-8873.

## December

2-3 — Pacific Coast Turf & Landscape Conference & Trade Show in Seattle. Contact Scott White at 800-275-9198.

15-17 — Missouri Lawn & Turf Conference & Trade Show in Columbia. Contact 314-882-1953.

\* — For more information or to register, contact Betsy Evans, education coordinator, Golf Course Superintendents Association of America, at 800-472-7878 or 913-841-2240. The seminars are dependent upon the availability of the instructors, and are therefore subject to change.

One-day seminars cost \$100 for GCSAA members and \$120 for non-members; two-day seminars cost \$180 for members and \$210 for non-members.

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CIRCLE #186

# Illinois superintendent steps behind the camera

*Jerry Mach develops third film on golf course maintenance*

By Mark Leslie

Move over Steven Spielberg and Oliver Stone. Jerry Mach is here to stay.

Mach, superintendent at Lake Bluff (Ill.) Golf Club, has two videos to his credit and has shot all the scenes for a sequel to his "career" premier, "Introduction to Golf Course Maintenance."

But, unlike Spielberg and the Hollywood crowd, Mach is not in the business of videos to make money. He has barely broken even.

Indeed, his aim is to provide basic instruction in areas directly affecting his colleagues around the country. With "Introduction to Golf Course Maintenance," he created a 28-minute primer for groundskeepers.

In his new release, the 12-minute "Unwritten Rules of Golf," Mach tackled golf etiquette, from replacing divots to pointers in speeding up play.

Both videos approach their subjects "in a generic fashion," Mach said, because many superintendents have their own ways to train new employees and because clubs in different areas may differ in policies on divot replacement, golf cart use, and other rules of golf.

Mach's peers first prodded him to film the maintenance video. They asked that it be

produced in Spanish, as well as English, since Spanish-speaking people are hired at 85 percent of the Chicago area golf courses, and at many in California, Florida and other states.

"I had lost six people in a short time and just wanted a vehicle to get people going, to get them acquainted with the basics of what is involved," Mach said. "We took a generic approach, since a lot of superintendents have their own way to train people."

The film shows where to take grass clippings, how to rake sand traps and change cups — the simple chores.

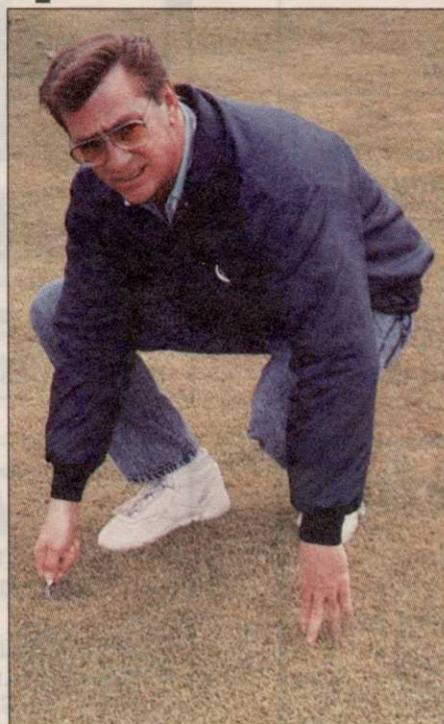
Mach sold 140 copies of "Maintenance" in 26 states, Japan, Mexico and Germany. And while some superintendents thought the film was not specific enough, it had its fans.

Ken Lapp of Cog Hill Golf and Country Club said: "We have four courses and 60 employees. This is a great training aid... I really enjoyed it."

Stonebridge Country Club superintendent Roger Stewart added it is a "good basic training tape, (doing a) good job of explaining jobs, especially cart maintenance."

A cry went out for a sequel. Mach has shot 24 scenes for "Golf Course Maintenance II," but may not proceed with it because of cost and since course policies often vary widely concerning such things as grass types and mowing practices.

But, "Unwritten Rules of Golf" is complete and, in fact, started playing in the Lake Bluff



Superintendent Jerry Mach demonstrates a turf management tip similar to those in his videos

clubhouse last October until the course closed for the winter.

"Unwritten Rules" was prompted by the greatly increased number of rounds played at Lake Bluff GC, where Mach has replaced all his fairways with bentgrass since 1985.

"That attracted a lot of people. And that prompted this tape," he said. "We started getting a lot of new faces, more teams, more juniors. We're always stressing to replace divots, etc. But, after 375 rounds on a Saturday, on Monday you check the course and you want to cry."

"Plus, we were not keeping up with the increased play."

Mach recruited 14-year-old son Noah and assistant pro Jay Hoffman to star in the production, and local video store owner Lou Mercerie to film it.

And, voila! A film that follows Noah and Jay through a round of golf, addressing among

other topics:

- replacing divots and repairing ball marks;
- raking sand traps and placing the rakes in the traps;
- use of carts; and
- scoring.

Mach remained "generic" as much as possible. Realizing that some clubs do not allow carts off the paths, in one scene Hoffman said: "The superintendent wants us to keep carts in the rough today."

"I didn't elaborate because some courses don't allow carts on fairways at all," Mach said.

Also, at Lake Bluff, Mach has soil-and-seed mixes in buckets on tees, especially par 3s, where irons are used. But Southern courses with Bermudagrass don't want golfers to return divots.

The video, Mach said, is "a tool to combat our problem and make golfers a part of the solution."

"These people watch the pros on TV. And how many times do you see the pro replacing his divot? You don't usually even see his caddy fix it. And you don't see them rake traps or fix their ball marks. A lot of these golfers don't even know that's what they're supposed to do. This tape is made for them."

Noting that many clubs have different rules of etiquette, Mach suggested, "If people don't think it's appropriate to their club, get the sampler. Use this tape as a template and make their own tape."

As for himself, Mach knows how he will gauge the effectiveness of his second endeavor in the world of filmmaking.

"If I go on a green and see 50 ball marks where I usually see 75, I'm going to be happy. I'll know it works."

People may order the films from Mach IV Productions, P.O. Box 543, Wauconda, Ill. 60084. "Unwritten Rules" costs \$19.95, plus \$4 for shipping and handling. The English and Spanish versions of "Maintenance" cost \$49.95 each, plus shipping, or \$100 for both with free shipping.

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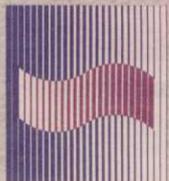
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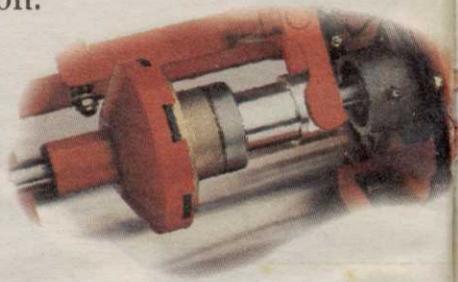
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