

GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

Architects and Builders
Special Section, pages 21-24

A UNITED PUBLICATION
VOLUME 4, NUMBER 11
NOVEMBER 1992

INSIDE

Buyer's Guide

The inaugural *Golf Course News* Buyer's Guide will land on your doorstep next month8

On the green

Having a problem with the build-up of clay silt, even on sandy soil? Check the water source38

Summit summary

Representatives of the golf industry descended on Orlando last month. We've got the highlights3

Congress controls fate of military courses

By PETER BLAIS

The battle brewing over control of the military's 240 golf courses could be settled in early 1993.

That's when Congress is likely to act on Sen. Dennis DeConcini's (D-Ariz.) bill to turn operation of the facilities over to private management companies and open them to the public.

Management companies, most notably American Golf Corp., are lining up behind the idea, claiming DeConcini's Senior Government Officer Benefit Limitation Act will provide public golfers with more places to play, improve services at the government layouts and make more money for a fiscally strapped federal government.

The Pentagon is generally opposed, arguing that opening the courses to private managers and public play would jeopardize security at sensitive military installations, deprive service men and women of a well-deserved benefit and reduce funding for non-profit activities currently subsidized by golf course revenues.

"Golf courses are something the military is involved in that they don't need to be," said Shannon Brown, a DeConcini staffer.

Countered David Moffett,

Continued on page 28

Subsurface injection

The race is on!

By MARK LESLIE

Gentlemen, start your engines. From Saskatchewan to Nebraska researchers are racing to market the first workable piece of equipment to inject liquid chemicals below the surface of the turf.

Ransomes America of Lincoln, Neb., displayed a prototype of its Liquidator at the last international golf conference, and hopes to have a working model at January's show. Rogers Innovative Inc. of Saskatoon, Saskatchewan, is testing its Liquid Pulse Injector (LPI) at the University of Guelph and intends to unveil it at the Green Industry Expo in mid-November in Indianapolis. And Pattison Brothers Agro Ltd. in Lemberg, Sask., hopes for positive test results so that it can display its Spoke Injector at the Canadian Turfgrass Conference and Show in late November.

Meanwhile, Toro has made adjustments to its HydroJect aerifying unit to render it useful for injecting chemicals just below the surface.

Continued on page 13



Rogers Innovative Inc. created this wax-cast image by shooting molten wax into the ground, then washing the soil away to illustrate how pressure fractures the ground. While this cast is 18 inches deep, chemicals would be injected 1-2 inches below the surface.

BIG-small partnerships in vogue

By HAL PHILLIPS

Aeromix Systems Inc. of Minneapolis and Otterbine/Barebo Inc. of Emmaus, Pa., have a lot in common. Both firms are members of the golf course industry, providing complete lines of water aeration products. Both are small — Aeromix has 24 employees, while O-B counts 27 on the payroll. And both have been approached by The Toro Company to form partnerships, whereby Toro would mar-

'Toro doesn't have five years to develop an aeration line. They need it today.'

— Peter Gross, president Aeromix Systems Inc.

ket and distribute their products.

Here the similarities end, however. Otterbine/Barebo turned down the offer and

Aeromix accepted it. Last spring, Aeromix and Toro agreed to offer a line of aquatic systems products and services under the Toro brand name. Financial terms were not disclosed.

This sort of BIG-small relationship has become increasingly common in the golf course industry, as petite companies seek the marketing and distribution power offered by megafirms — and these

Continued on page 30

Fazio part of \$10 billion Malaysian deal

By MARK LESLIE

A \$10 billion theme park, centered around eight golf courses, is about to be undertaken in Malaysia, according to sources.

An Italian developer reportedly has brought together the Italian and Malaysian governments and private money to build the facility.

It is expected to eventually include 24 hotels with 1,000 rooms each. Develop-

ers, who have been working on the project for the past 18 months, expect the park to draw 150,000 people a day.

American golf course architect and builder Jim Fazio of Juno Beach, Fla., has been contracted to organize the golf construction. He will design two courses and sign others to design the six remaining layouts on the 300,000-acre

Continued on page 20



Jim Fazio



Fazio Golf Course Designers

THE SHAPE OF THINGS TO COME

Lou Cappelli tackles a natural obstacle while shaping Ventana Canyon Golf and Racquet Club in Tucson, Ariz. Find out about the life and art of shaping on page 21.

COURSE MAINTENANCE

Canadian supers in Halifax — a show preview.....11
Peers provide practical advice on HydroJect.....11
In Focus: Canada's Superintendent of the Year.....12

COURSE DEVELOPMENT

Reclaimed water issues in Florida and Arizona.....19
Developers hope tourists find The Lost City.....17
New course listings.....20

COURSE MANAGEMENT

Investment pools growing as funding sources.....25
ClubCorp looks for electronic exposure.....25
Wild Dunes aids Florida course in Andrew's wake...27

SUPPLIER BUSINESS

Giving seed a seal of approval.....29
Deere honored for form, rather than function.....30
What's new in the marketplace.....32

The Fungicide Turf Managers Swear By (Not At).



For more than 20 years, turf managers have known Fungo® is the fungicide they can always trust—for reliability and effectiveness.

Fungo provides broad spectrum control of most major turf and ornamentals diseases. And, Fungo is economical to use. Its systemic activity keeps

Fungo Controls All These Turf Diseases:	
• Dollar Spot	• Summer Patch
• Brown Patch	• Necrotic Ring Spot
• Anthracnose	• Fusarium Patch
• Copper Spot	• Fusarium Blight
• Red Thread	• Stripe Smut

on working for up to 14 days with one application.

And now, Fungo is available in dry flowable form, as well as in liquid flowable and WP. Just choose the one that's perfect for you.

Contact your Grace-Sierra distributor today and tell him you want Fungo.

Or call us today toll-free at 1-800-492-8255.

Use Fungo. You'll swear by it for good.



GRACE SIERRA
Tournament Condition Every Day.

Fungo 85 DF is not available for sale in California. © 1991 Grace-Sierra Crop Protection Company. Fungo is a registered trademark of Grace-Sierra Crop Protection Company.

CIRCLE #143

BEARD
COLLECTION

NEWS IN BRIEF

TORRANCE, Calif. — "Fit more parkland into the proposed Rancho Palos Verdes golf course project." That was the message the state Coastal Commission gave Barry Hon and the Zuckerman family in denying development of 83 homes and an 18-hole course on a 258-acre coastal parcel near San Pedro. The Torrance City Council approved the development in August. The commission decided, 6-3, that the development doesn't provide enough wildlife protection and open coastal area for non-golfers.

♦♦♦

MYRTLE BEACH, S. C. — The Surf Golf and Beach Club reopened Sept. 15 after completing a \$1 million greens renovation project. Golf course architect John LaFoy of Taylors used original designer George Cobb's plans as a starting point. Landscapes Unlimited of Lincoln, Neb., did the reconstruction work. The course is the third oldest in the Grand Strand area of coastal Carolina.

♦♦♦

SANTA FE, N.M. — Opponents of the proposed La Cienega de Santa Fe golf course community plan to file a suit against Santa Fe County officials for approving the project. The group Friends and Neighbors of La Cienega claim the county violated water rights and land grant codes and failed to conduct a necessary environmental impact study, the *Santa Fe New Mexican* reported. County officials, who are named in the suit, say the suit will not necessarily stop the project.

♦♦♦

QUEENSBURY, N.Y. — Hiland Golf Club, the 18-hole golf course and resort complex conceived on 713 acres in 1986, has filed for bankruptcy protection, listing debts of more than \$3.9 million. "The golf course is doing very well, but not enough to pay the mortgage," said Gary D. Bowen, president of Highland Park Inc.

1992 Golf Course Development — So Far

Through Aug. 15	Opened		Under Construction		In Planning		Totals	
	'92	'91	'92	'91	'92	'91	'92	'91
Source: NGF								
Daily Fee	154	143	393	330	384	400	931	873
Municipal	37	36	82	80	106	113	225	229
Private	39	52	149	162	157	229	345	443
TBD	—	—	2	3	10	13	12	16
Totals	230	231	626	575	657	755	1,513	1,561

Summit focuses on environment, growth

ORLANDO, Fla. — Building better facilities and drawing non-players into the game were the main topics of concern at Golf Summit '92, as more than 300 members of the golf industry gathered at the Marriott World Center in late October.

This year's Summit, sponsored every two years by the National Golf Foundation, drew fewer participants than its 1990 incarnation. However, more consensus was drawn on account of the meeting's interactive nature. Attendees formed and set policies on player and facility development following interactive panel discussions. NGF will release the resulting strategies later this month.

One of the most pertinent panel discussions featured environmental lawyer Sharon Mattox, William Roberts, president of the GCSAA; golf course architect Rees Jones; and Bob Johnson, president and CEO of ClubCorp. They discussed the continued impact environmental issues will have on golf course construction and operation costs.

Mattox, whose firm was retained by the NGF to develop environmental recommendations, discussed the need for a clearinghouse on environmental information operated by one or more of the industry's major associations. Roberts volunteered the superintendent's association for

the task, although others felt it should be a shared responsibility.

Another interactive discussion centered on non-traditional developments, such as a golf complex and learning centers run in Kansas City by Dennis Tull. Smiley's New Golf Complex features three different ranges, two miniature golf courses and a mid-length, 18-hole golf course. The course features bentgrass fairways and greens, maintained by two certified superintendents.

"The golf industry has to make it easier for people to learn and enjoy the game," said Tull, who noted that many of his clients "graduate" to full-sized courses after two years of playing at Smiley's.

Also on the panel with Tull was Richard Barrett with SunBelt Golf Inc., the firm responsible for the Jones Trail in Alabama. This multi-course venture used state pension funds to develop top-notch public golf courses on donated land with greens fees ranging from \$11 to \$28. This sort of public/private partnership needs to become more common if public golf is to grow, while remaining affordable, Barrett and others agreed.

According to Ed Abrain, chair of the NGF's Facility Development Committee, 350 courses will open before year's end. Abrain expressed concern that most of these new facilities were high-end.

Courts ready to accept briefs in Homestead case

CINCINNATI — The 6th Circuit Court of Appeals in Cincinnati has set deadlines for legal documents in the continuing dispute involving a proposed golf course at the Homestead Resort in Glen Arbor, Mich.

The U.S. Environmental Protection Agency (EPA) and Roland Harmes, director for the Michigan Department of Natural Resources (DNR), have filed for an appeal of a June 8 court order that blocks a proposed wetlands fill at the resort.

Briefs are due in Cincinnati Nov. 16. No hearing dates have been set.

In May of this year, the DNR approved developer Robert Kuras' plan to build a golf course along the Crystal River, whereby 3.68 acres of wetlands would be filled. Under orders from Director William Reilly, the EPA withdrew previous objections and cleared the way for Kuras to receive the needed wetlands permit.

However, later in May the Friends of the Crystal River — an environmental group fighting the proposed golf course plan — sued the EPA, Harmes, Reilly and LuJuana Wilcher, the assistant EPA administrator for water. This led to the June 8 injunction.

Michigan is the only state that issues federal wetlands permits because its laws are stricter than federal regulations. Other states rely on findings from the U.S. Army Corps of Engineers.

Opponents of the project argue the EPA caved in to the wishes of Gov. John Engler, who headed George Bush's 1988 election campaign in Michigan. Reilly is a Bush appointee.

Opponents, who believe the federal agency acted illegally in approving the project, also maintain the authority to issue permits now rests with the Army Corps.

Meanwhile, golf architect Bob Walker and Kuras are confident the course will eventually be constructed. "This project has met every standard of law," said Kuras.

GOLF ISN'T ALWAYS A GAME. Sometimes, It's A Business

Constructing or redesigning a golf course, hiring staff, negotiating contracts, financing and operations. This is when golf isn't a game and requires the assistance from experts with hands-on experience in every aspect of golf and country clubs.

Fraser Golf Consultants can tell you what is absolutely essential to the success of your course — and what is not.

For a free FGC brochure and information call

FRASER GOLF CONSULTANTS

609-641-7575.

James Fraser, Pres. Douglas Fraser, V.P.
One Leo Fraser Dr., Northfield, NJ 08225

CIRCLE # 101

Erosion Control has never been more advanced



North American Green erosion control/revegetation blankets provide ideal protection for newly-seeded undulations, out-of-bounds slopes and drainage channels. With a diversified line of seven different erosion control blankets, available with Cell-O-Seed seed-incorporation, North American Green offers cost-effective solutions to the wide variety of erosion/revegetation problems threatening golf course construction projects.

Cost-effective erosion control solutions for course construction are easily designed with the North American Green Erosion Control Plan software package. This computer-based system will assist you in determining suitable erosion control blankets and vegetal stands for effective slope and channel stabilization.

For further information on how North American Green can reduce soil erosion and solve revegetation problems on your course, contact North American Green today.

14649 Highway 41 North • Evansville, IN 47711 • In State (812) 867-6632 • 1-800-772-2040

EROSION CONTROL BLANKETS

CIRCLE # 102

HUD to determine municipal layout's fate

PONTIAC, Mich. — Proposals calling for the complete redevelopment of the Pontiac Municipal Golf Course and Lakeside Homes public housing development could mean a boost to the city's ailing residential base — if the U.S. Department of Housing and Urban Development signs off.

The city has received two separate proposals to refurbish the golf course and public housing development which wrap around Crystal Lake. A proposal by Weiss Development Inc. of Southfield involves an 18-hole course, more than 250 houses and 164 condos. J&J Slavik of Farmington offered three alternatives, all in-

cluding an 128-hole course and between 300-400 homes.

However, city councilmen agree the biggest hurdle will be acquiring federal approval. HUD will require one-to-one replacement for the existing 364 units at Lakeside.

Public Housing Chairman Richard Clanagan also believes the current Lakeside tenants will resist relocation. "You're going to catch holy hell moving tenants off that land," he told The Oakland Press. "This is a rich people vs. poor people issue."

Preliminary reports already have the city pledging as much as \$12 million in tax revenues to aid proposed changes in the area's infrastructure.

Ohio course closer to reality

MASSILLON, Ohio — Plans to create a municipal golf course here crept closer to reality when the City Council agreed to hire an architect and borrow \$100,000 to finance the initial stages of the project.

The city of Massillon will pay \$55,000 to John F. Robinson & Associates of Huntsville, Ontario, Canada, to design the golf course on 250 acres of land near the confluence of routes 30 and 21.

The contract was awarded without competitive bidding, but Coun-

cilman Tom Brennan — the course's main backer — said he contacted other architects whose fees ranged from \$175,000 to \$250,000.

City Law Director John Ferrero indicated this type of project is exempt from competitive bidding requirements.

The cash-strapped city is expecting to pay \$2.37 million before the golf course is completed.

Brennan said the facility would turn its first profit three years after completion.

GROWING BETTER THROUGH TECHNOLOGY.

Exclusive Fescue Varieties



When Selecting A Fescue, Start At The Top.

Available in fall of 1992, Scott offers two new, *exclusive* fescue seed varieties top-rated for turf performance.

Aztec is an improved tall fescue with a dark green color and fine texture. It received top ratings in quality, color, leaf texture and density in the 1988-1990 National Trial results. And it demonstrates the lower growth habit now gaining acceptance for

improved tall fescue, with less vertical regrowth and good disease resistance.

*Brigade** is a hard fescue that addresses the need for turf that can withstand drought conditions and watering restrictions. During hard fescue trials at Rutgers University from 1983-1986, *Brigade* was ranked first for overall quality. It ranked among the top 10 hard fescues in the 1990 National

Trial results, cited for its overall quality, color, density and disease resistance.

And only ProTurf[®] products come with a Scott Tech Rep, an agronomically trained professional ready to help you develop a total turfgrass program that assures proper application and maintenance scheduling.



ASPA accepting funding requests for research

The American Sod Producers Association (ASPA) is accepting requests for research funding for the 1992-93 fiscal year. Approximately \$24,000 has been earmarked in the ASPA budget for this purpose.

Funding for ASPA Research Grants comes from the organization's general revenues and a \$5,000 contribution received from the Ciba-Geigy Turf and Ornamental group.

The ASPA Research Committee will convene at the 1993 Mid-winter Conference, Feb. 3-5, to determine the grant winner(s) from among the proposals received. Because of ASPA's ongoing interest in protecting and improving the environment, proposals which emphasize such environmental concerns will be given the highest priority.

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

The publisher assumes no responsibility for unsolicited material or prices quoted in the newspaper. Contributors are responsible for proper release of proprietary classified information. Copyright 1992 by United Publications Inc. All rights reserved. Reproduction, in whole and in part, without the written permission from the publisher is expressly prohibited.

Reprints and permission to reprint may be obtained from Managing Editor, *Golf Course News*, P.O. Box 997, Yarmouth, ME 04096. Back issues, when available, cost \$2.50 each within the past 12 months, \$5 each prior to the past 12 months. Back issues may be billed to American Express, Visa, or MasterCard; paid by check; or billed when ordered via purchase order.

Golf Course News is distributed in the U.S. without charge to qualified personnel of golf course facilities and to golf course builders, developers and architects. For subscriber services, please call 215-788-7112. Paid subscriptions cost \$35 annually, while Canadian subscriptions cost \$25, student subscriptions \$15 and foreign subscriptions \$85 annually.

Postmaster: Send address changes to Circulation Manager, *Golf Course News*, P.O. Box 3047, Langhorne, PA, USA 19047.

Calif. tests show no additional well contamination

SACRAMENTO, Calif. — No new pesticides were found in California ground water, according to a recent sampling of 1,556 wells in 30 counties.

The Department of Pesticide Regulation's 6th annual report summarized the results of 49 ground water studies submitted in 1990 and 1991.

Though a valuable record, the report cannot be used to draw firm conclusions about the state's ground water, according to a recent California Environmental Protection Agency press release.

Among the pesticides detected were 2,3,5,6-tetrachloroterephthalic acid (TPA), a breakdown product of the herbicide chlorothal-dimethyl; atrazine, bromacil, diuron, simazine, prometon and molinate, all herbicides; aldicarb sulfone and aldicarb sulfoxide, breakdown products of the insecticide, aldicarb; xylene, an active ingredient in many pesticide formulations and also used as a solvent in gasoline; and orthodichlorobenzene, a soil fumigant that is no longer registered in

California.

If tests reveal contamination above safe levels, immediate action may be taken. Past actions have included revocation of permits to use pesticides, or suspension or cancellation of registration.

For free copies of the report, *1991 Update, Well Inventory Data Base*, are available from the California Department of Pesticide Regulation, Environmental Monitoring and Pest Management Branch, 1220 N. Street, Sacramento CA 95814 or by calling 916-654-1144.

Watering restrictions OK'd

VENTURA, Calif. — The Ventura County Planning Commission approved a proposal tightening watering restrictions on developments in unincorporated parts of the county.

The proposed Farmont Inc. golf course in Ojai Valley would be among the developments affected, according to the Ventura County Star-Free Press. The measure requires developers to calculate future water use, conduct audits to track actual water use and re-

place water-thirsty plants with low-water-use vegetation when limits are exceeded.

The planning commission recommended water usage be calculated at 80 percent of a plant's evapotranspiration rate. Arguments that 80 percent was insufficient were unsuccessful.

Thousand Oaks County will be even more restrictive, setting water usage at just 50 percent of the evapotranspiration rate.

Land problems may temper course expansion

PALM SPRINGS, Calif. — The money is there, but the land may not be.

If control can't be gained of the 14-acre McCallum Preserve next to the city's Golf Club Drive course, planned expansion of the city's golf course from 18 to 36 holes will be cut back to 27 and the existing links upgraded.

The city can't give back any of the \$14 million borrowed in February to finance expansion. The "fallback" plan would force the city to raise green fees to pay off the debt with a smaller-than-planned course.

Franconia GC hopes to repair two holes

SPRINGFIELD, Mass. — The 15th hole at city-owned Franconia Golf Course and the 10th at Veterans Golf Course aren't listed as water holes on the scorecard, but playing regulars disagree.

Always muddy and marshy, is the consensus.

William L. Putnam, Parks Commission chairman, said the commission is pleading with the city to pay about \$240,000 to repair these mud holes. The two courses annually return about \$380,000 in greens fees and other revenue to the general fund. Putnam would like to tap this money to dry up the unwanted water.

Zoning board rejects planned golf course

DURHAM, N. H. — Proposed development of an 18-hole golf course, 300 parking spaces and 14 house lots on the banks of the Lamprey River met unanimous rejection from the Zoning Board of Adjustment.

The board turned down all four zoning variances requested by owner Charles Benevento, Beverly, Mass.

Variance may be granted only if a hardship exists with the land. A financial hardship does not warrant a variance, the zoning board noted.

Frankly, it won't make a splash on your course.

If your players are tired of the splash, splash sloppiness associated with other ball washers, maybe it's time to pay less and get more — with the Professional Series Ball Washer by Standard Golf. ♦

Our Professional Series Ball Washer has become a new tradition on courses around the world.

It conveniently washes up to four balls at a time. With a few easy cranks of the handle, tough nylon bristles scrub dirt and grime away. ♦ It's a clean winner for thousands of superintendents, too. The sensible overflow tube and drain construction prevents leaks and streaks, while making maintenance a breeze. And the beautifully durable case is available in the seven most popular colors in golf. ♦ Con-

tact your nearby Standard Golf distributor and ask about the new tradition in ball washers. They won't make a splash on your course (or a ripple in your budget).

The Standard of Excellence

STANDARD GOLF ProLine



Standard Golf Company • P.O. Box 68 • Cedar Falls, IA 50613 • 319-266-2638 • FAX 319-266-9627

CIRCLE #104

SG 174

Workers fight to keep jobs

EAST BRUNSWICK, N.J. — Three Middlesex County parks employees are fighting efforts to dismiss them for alleged mismanagement of funds at Tamarack Golf Course.

Parks superintendent David Campion, golf pro Edmund Heuser and Clubhouse Manager Frank Giampietro are contesting their dismissal, which stemmed from a 34-page report filed by County Counsel Edward Gross. The report alleges the Tamarack trio ran the course contrary to the formal policies of the freeholder board, costing the county hundreds of thousands of dollars in revenues.

Gross' report also alleges that revenues for between 10,000 and 20,000 rounds of golf remain unaccounted for. This prompted the freeholders to ask the county prosecutor's office to open the investigation, which resulted in Gross' report.

"Everything my client did was with the full knowledge and approval of his superiors," Heuser's attorney Robert Adochio told *The (Woodbridge) News Tribune*. "They [freeholders] have to show good cause why he's being dismissed, and I don't think there is any."

A hearing is scheduled for this month.

Goforth loses Council backing

MOLINE, Iowa — Plans to build a golf course and upscale residential neighborhood here have stalled after issues of tax sharing muddied the water.

The Goforth Group, a Chicago development company, had planned to create a golf course and high-income housing development in an unincorporated area of Rock Island County, south of Moline. Goforth wanted to share with Moline the property taxes paid by homeowners within the development.

Goforth also wanted Moline to annex the land and guarantee that quality city services — water and sewer — would be provided.

However, the two-thirds majority needed to approve the measure no longer exists on the City Council. Alderman Barbara Sandberg is one of the dissenters. "I guess I just have some philosophical problems with sharing property taxes," she told the *Quad-City Times*.

The proposed agreement calls for all costs incurred by the city to be covered completely during the first six years of the agreement. For 20 years thereafter, Goforth and the city would split revenues.

Forecast to hold two-day golf range seminar

SAN DIEGO — Forecast Golf Marketing and Financial Systems of Richmond, Va., has announced a second golf range development seminar to be held here Nov. 16 and 17.

Scott Marlowe, president of Forecast, said: "We have put together a program which is the 'meat and potatoes' of golf range seminars.

"Our seminar participants receive the knowledge they need to see them through the entire process of developing a successful golf practice range."

Forecast's seminar program covers all aspects of golf range development.

Day One of the two-day program provides discussions on the planning and market research that must be done to properly qualify a site, establish the

project's feasibility, and what the developer should spend on the project to maximize his return on investment.

The second day covers the actual development, construction and operation of the range facility. Specific areas that are discussed include market analysis, site selection, sales forecasting, feasibility, pro forma financial statements, warranted investment level, business plan, facility configuration, zoning and environmental issues, construction, equipment, and financing.

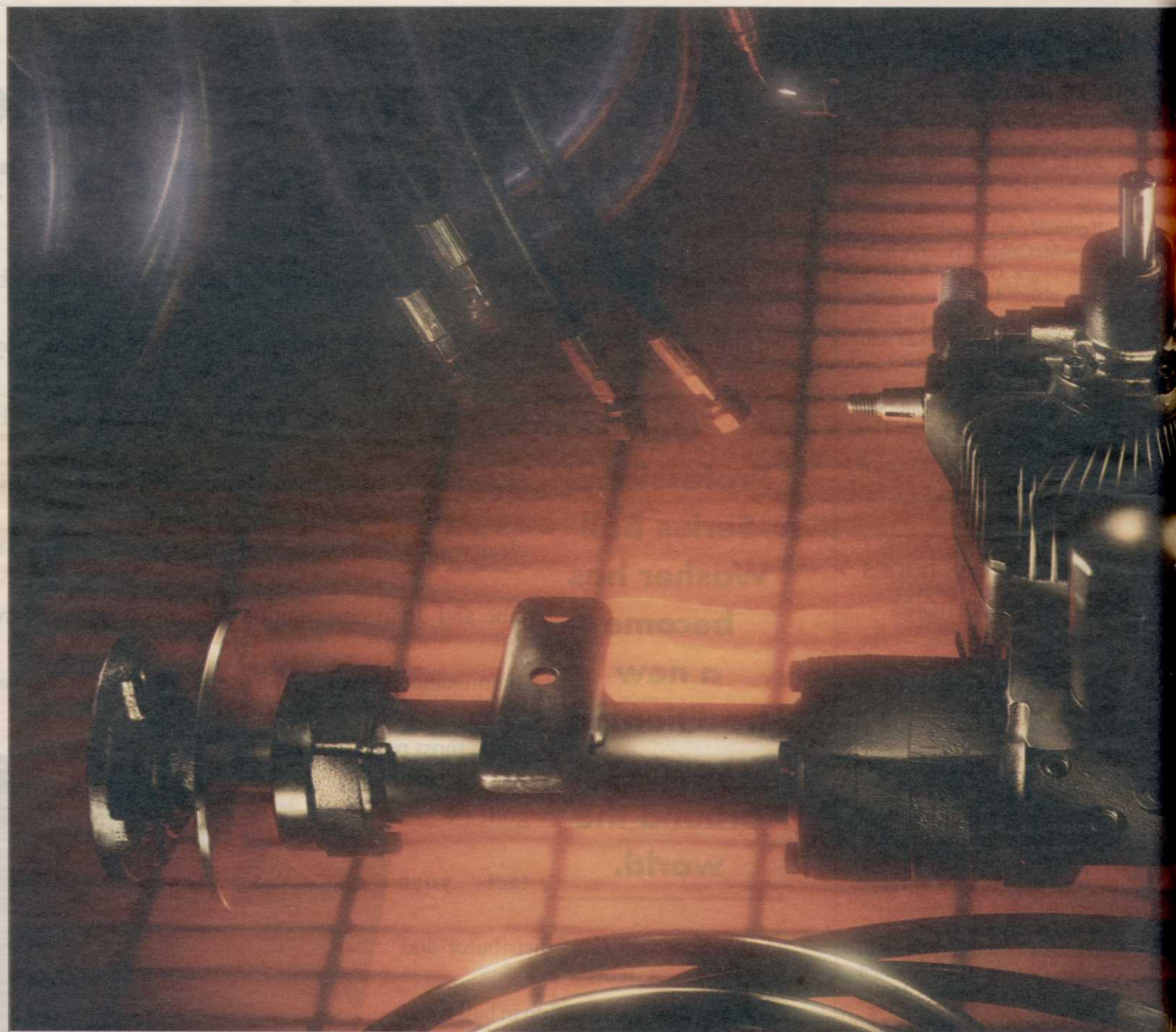
The seminar will be held at the Double Tree Hotel at Horton Plaza.

The fee for the entire seminar is \$295. For more information about the seminar call Forecast at 804-379-5760.

City proposes 13 new holes

HURON, S.D. — The Huron Golf Commission hopes to take advantage of the city's proposed airport renovation to expand adjacent Meadowbrook Golf Course to 18 holes.

The runway extension, which is awaiting federal funding, will claim five holes. The City Council has budgeted \$300,000 to build 13 new holes on nearby land.



For those who've tired

It's simple. Fewer hydraulic lines mean fewer chances of leaks or failures. That's why the John Deere 2243 Professional Greens Mower is the logical choice for work on your most precious ground — your greens.

The 2243 uses a single hydrostatic transaxle instead of multiple wheel motors. It replaces traditional hydraulic motors, hoses and fittings with a single, sealed component.

In addition to reducing

hydraulic lines, the transaxle delivers quick machine response and built-in dynamic braking on slopes.

Add the advantage of the 2243's patented offset cutting units that reduce perimeter

Toyama's course gains approval

VENTURA, Calif. — Japanese media tycoon Kagehisa Toyama's dream of building a private golfing retreat in the Ojai Valley appears to be coming true.

The Ventura County Environmental Report Review Committee has voted 5-2 to certify the project's environmental study as complete, conditionally clearing the way for Toyama, who owns Radio Nippon and a Japanese publishing empire. Former U.S. Budget Director Maurice Stans and former U.S. Vatican Ambassador William Wilson are among offic-

ers in the proposed club.

Toyama's Fairmont Corp. has agreed to so many environmental restrictions, each club member may pay as much as \$7,000 per hole to finance them, said Stan Eisner, a member of the county staff committee. Fairmont attorney Lindsay Nielson said play will be restricted to 35 rounds a day—that comes to about \$125,000 per round, Eisner noted.

Toyama has retained the services of Pete Dye to work the 2,000-acre site near Rancho Matilija.

New book covers golf course appraisal

CHICAGO — The Appraisal Institute's newest book and videotape details special considerations involved in appraising golf courses.

The book, "Golf Courses and Country Clubs: A Guide to Appraisal, Market Analysis, Development, and Financing," provides an in-depth examination of private, daily fee and municipal golf courses, as well as facilities in residential real estate developments and resorts.

Data on golfer characteristics, a practical approach for determining the financial feasibility of golf courses, and the services and profit centers essential to golf facilities are discussed.

The results of a survey of lenders detailing

problems in obtaining financing for new golf projects also is included.

The videotape, "The Appraisal of Golf Courses and Country Clubs," examines factors that influence value. It focuses on aspects of golf course construction, including layout development of new courses and costs involved in constructing a golf club complex.

To order these products send request to Appraisal Institute, P.O. Box 10956, Chicago, Ill. 60610-0956.

The National Golf Foundation contributed significantly to the book and videotape. Copies are also available from NGF by calling 800-733-6006.

Pine Trace GC receives accolades and criticism

DETROIT — The Detroit Monthly's tongue-in-cheek sports section took a more serious turn in its August issue jab at Pine Trace, tabbed the best/worst public golf course.

While paying tribute to Pine Trace's beauty, it noted a fast-play rule admirable in theory but annoying in practice.

"Who wants a ranger to swoop down on you after the seventh hole to announce that you're two minutes behind schedule?" Also knocked was the carts-on-the-path-only rule and a nerve-shattering clubhouse loudspeaker well within earshot of anxiety-ridden putters on 18.

Wash. couple fights course permit denial

WENATCHEE, Wash. — While not contending county officials are trying to pull the wool over their eyes, H. P. and Edna Hansen claim they are being wrongly denied permission to build a nine-hole golf course in Cashmere, just west of the Chelan County Fairgrounds.

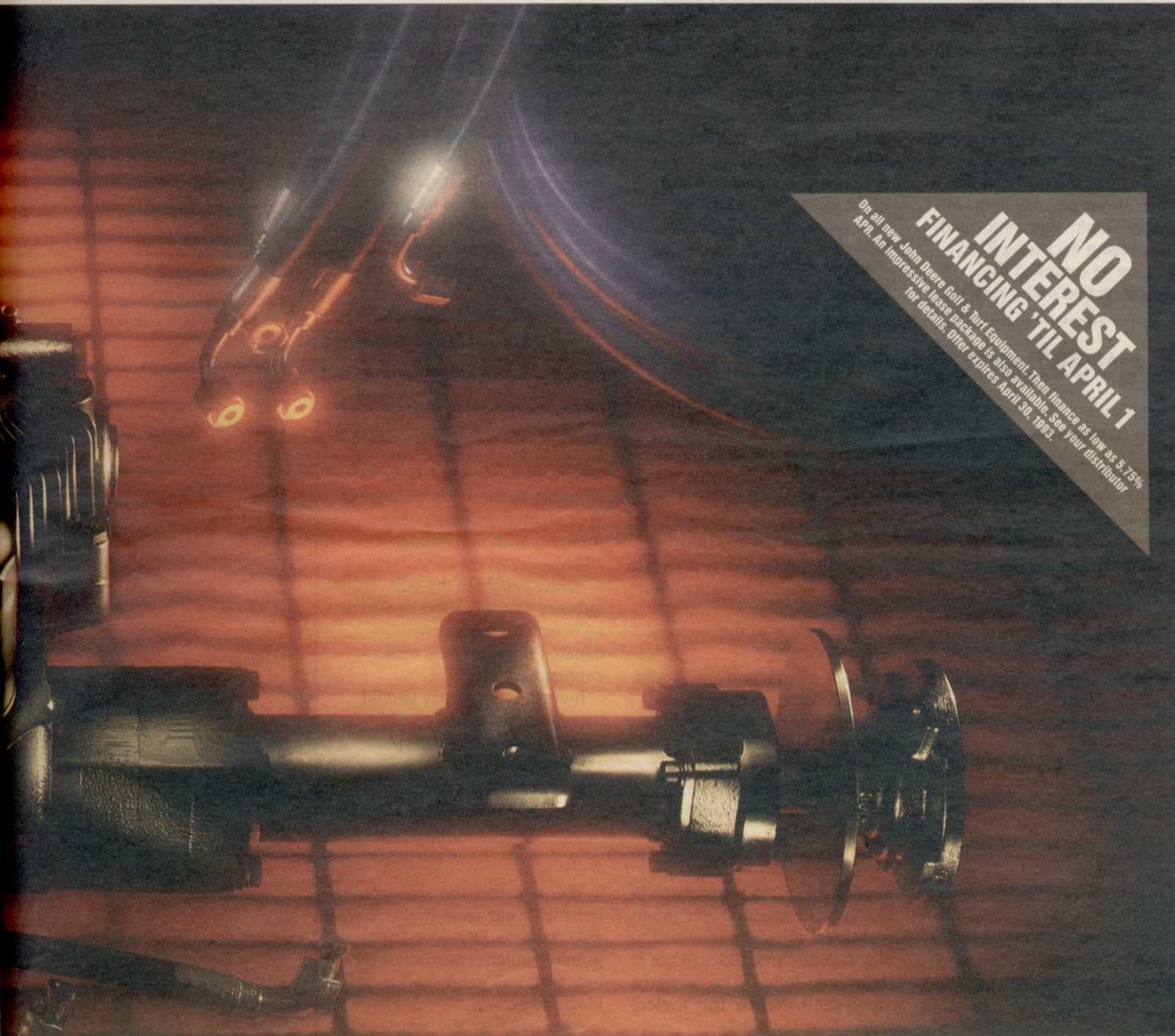
The Hansens have filed a writ of review against Chelan County and the county Board of Adjustment. They are asking the court to review and overturn a decision they insist was based on erroneous and faulty findings, including a claim that the golf course could damage adjacent property.

Inaugural Ga. Golf Summit set for Nov.

BUFORD, Ga. — The Georgia Golf Council's inaugural Georgia Golf Summit is due Nov. 15-17 at Stouffer PineIsle Resort here.

Designed to bring together those interested in growth and development of golf, the summit will provide a forum for industry networking. Focus will be on impact of the game in Georgia and exchanging ideas and developing plans to address key issues.

For more information, contact (404) 952-9063.



NO INTEREST FINANCING 'TIL APRIL 1
On all new John Deere Golf & Turf Equipment. Then finance as low as 5.75% APR. An impressive lease package is also available. See your distributor for details. Offer expires April 30, 1992.

of the same old lines

compaction and you begin to see how the John Deere 2243 separates itself from the rest. For the name of your nearest distributor, or free literature, call 1-800-544-2122.

Or write John Deere, Dept. 956, Moline, IL 61265.



CIRCLE #105

NOTHING RUNS LIKE A DEERE®



Inaugural Buyer's Guide coming your way

Next month at this time, when you settle down to read your new issue of *Golf Course News*, don't be surprised to find a complete, cross-referenced listing of nearly 400 suppliers to the golf course industry. Instead of a December issue, we're sending along our first-ever Buyer's Guide.

Now, don't panic. *Golf Course News* will return in January, complete with a blockbuster special section devoted to the GCSAA show in Anaheim, not to mention the thorough news coverage you've come to expect from this publication.

The Buyer's Guide is actually more of a buyer's companion, providing superintendents, architects, builders and club managers with all their purchasing options. This is a true supplier directory because it doesn't cost a penny to be included.

Competitive directories charge suppliers for space in their guides — this hinders some firms from

taking part, thus rendering the guides incomplete. The *Golf Course News* Buyer's Guide is different because it serves the reader: If you're a supplier of the industry, you're in the guide at no charge.

As you'll discover early next month, the *Golf Course News* Buyer's Guide is a magazine-sized, square-bound publication that will fit nicely on a shelf. It looks nice. But its good looks have a larger, lasting purpose: To provide industry reference assistance for the coming year.

It's indexed by company (in alphabetical order) and product/service, so it's easy to find what you're looking for.

We hope the *Golf Course News* Buyer's Guide helps our readers make more informed purchasing decisions. That's why we've compiled the directory; that's why we'll do



Hal Phillips
editor

the same thing next year.

However, I would be remiss if I closed this column without addressing the suppliers out there. By the time you read this, it's probably too late to be included in this year's Buyer's

Guide. For those of you who've missed out, bear the following in mind:

- The information in our Buyer's Guide will reach all 22,000, qualified *Golf Course News* subscribers, whereas the competing guide reaches only 11,000.

- And remember: Our subscribers include superintendents, architects, builders, club managers, developers, club presidents, club owners and green chairmen — anyone who's anyone in the golf course industry.

- The *Golf Course News* Buyer's Guide will be delivered



to 7,987 superintendents, and we'll provide bonus distribution at the 1993 GCSAA Show in Anaheim.

We believe it will be useful and warmly received because the Buyer's Guide — like everything we do at *Golf Course News* — is intended to serve the entire golf course industry.

That's all for now. Enjoy the holidays, and we'll see you in January, 1993.

Why has USGA questionnaire raised so many hackles?

People have taken enough shots at the U.S. Golf Association recently to sink the Good Ship Golf House.

TRACS... Green construction specifications... Tough tournament preparation... But really, folks, in the spirit of friendship, this poll of theirs should be no reason for them to be drawn and quartered.

The USGA is on golf's side, for heaven's sake. It just wants to get to the root of the public's and golfers' perceptions of golf and the environment and today's ever-changing equipment technology.

If you don't know what I speak,

I've gotten calls and faxes from people appalled at USGA's "1992 Golf Opinion Poll." Simply, in a mailing to golfers nationwide recruiting them to join the USGA, Arnold Palmer wrote that one of the association's responsibilities is "to ensure that golf remains a great game for all golfers. To accomplish this goal, the USGA examines key issues that affect the way the game is played."

He asked the golfers to fill out a survey including these four questions:



Mark Leslie
managing editor

- Should golf courses be forced to stop using pesticides and be shut down if they continue?

- Are you aware that the USGA is sponsoring research to examine the complete impact golf courses have on the environ-

ment?

- Are today's golf equipment manufacturers ruining the challenge of the game, replacing skill with technology?

- Are you aware that the USGA continually examines golf equipment for conformity to

strict rules?

"Since you have more than a casual interest in the game, and will be affected by the USGA's response to these issues, here is your chance to share your thoughts with us," Palmer added.

Some people in the golf industry saw this letter and went up in arms. They apparently equated the questions with condemnation.

Indeed, the industry should have more polls, more solid information on how Americans — even the clients, the golfers — feel about golf courses and

Continued on page 26

Letters

HYDROJECTIONS

To the editor:

I enjoy reading *Golf Course News*.

The September issue of *GCN* carried an article about the Toro HydroJect. I believe you also printed another HJ article earlier this year, which read more like a press release from Toro.

The HJ is a good machine and has a place in turf management. However, reading some of the promo material originating from the manufacturer, aimed at both Superintendents and players alike, the implication one might get is that the HJ is a cure-all for many of our existing soil problems.

As many in the field are finding out, it is not.

Advertising revenue aside, as a reader I would benefit from a more objective article, similar to one we gave to our Met GCSA membership last month, copy attached.

Patrick Lucas, CGCS

Innis Arden GC
Old Greenwich, CT

Editor's note: When you're right, you're right. The above mentioned story has been reprinted in this month's *Golf Course News*, on page 11.

REPORT FROM BURNING SANDS

To the editor:

I read with great interest the article about Furnace Creek Golf Course in your August 1992 *Golf Course News*. United States Gypsum Co. maintains one of the few remaining company-owned mining towns in the West. I have been town manager of Empire, Nev., the past 12 years. One of my responsibilities has been the maintenance and upgrading of the nine-hole Burning Sands Golf Course.

The course was started 30 years ago by a group of volunteers who

divided into three teams, each to construct a green. Each green had three holes and they had to play around three times to get in their nine holes. The fairways were sand, hence the logical name, Burning Sands.

Over the years, improvements were made and greens added. The number 2 and 3 fairways were seeded in 1978, the 6 and 7 fairways in 1984. The 1, 2, 3 and 4 greens were opened for play in their present state in 1980.

We have many of the same conditions and problems as Furnace Creek. The soil is alkaline, water is extremely high in mineral content (non-potable) and maximum flow is only 275 GPW, the winds blow almost constantly from the west, and temperatures vary seasonally from 100 degrees to 105 degrees Fahrenheit down to as cold as minus 15-20 F at night in the dead of winter, though winter daytime temps usually are above freezing.

We, too, had the same problems with our sand traps. Available sand is DG (decomposed granite) which crusts over after it gets wet, and good sand merely blows away.

After reading the article and discussing it with the local golf club, we decided to try turf bunkers and will lay sod tomorrow in the number 4 and 7 bunkers. If this is readily accepted by the local golfers, the others will be converted to solve a long-standing problem. Furnace Creek can no longer lay claim to be the only course with turf bunkers.

We have a feature I'm sure no other course can claim. It is open to the general public and it is free ... no greens fees! And, there is no reservation requirement and no waiting list. Though it is open year-round, there is no maintenance after the grass goes dormant.

Kenneth McCurdy,
town manager
United States Gypsum Co.

Publisher
Charles E. von Brecht

Editorial Director
Brook Taliaferro

Editor
Hal Phillips

Managing Editor
Mark A. Leslie

Associate Editor
Peter Blais

Contributing Editors
Kit Bradshaw
Terry Buchen, CGCS
Vern Putney
Bob Spiwak

Editorial Advisory Board
Kevin Downing, CGCS
Willoughby Golf Club
Tim Hiers
The Johns Island Club
Dr. Michael Hurdzan
Hurdzan Design Group
James McLoughlin
The McLoughlin Group
Brent Wadsworth
Wadsworth Construction

Production Manager
Joline V. Gilman

Circulation Manager
Brenda Boothby

Editorial Office
Golf Course News
PO Box 997
38 Lafayette Street
Yarmouth, ME 04096
(207) 846-0600

Advertising Office
National Sales:
Charles E. von Brecht

Marketplace Sales:
Simone Marsteller

Golf Course News
7901 Fourth St. North
Suite 311
St. Petersburg, FL 33702
(813) 576-7077

United Publications, Inc.
*Publishers of specialized
business and consumer
magazines.*

Chairman
Theodore E. Gordon
President
J.G. Taliaferro, Jr.

NGF **CHARTER MEMBER**
NATIONAL GOLF FOUNDATION

BPA

Copyright © 1991 by United Publications, Inc. All rights reserved and reproduction, in whole or in part, without written permission from the publisher is expressly prohibited.
POSTMASTER:
Send address changes to Circulation Manager, Golf Course News, P.O. Box 3047, Langhorne, PA, USA 19047.

European development lacks long-term focus

By RON FREAM

Golf development in Europe is not a growth industry today. The present economic slowdown (recession, or worse) throughout Europe has only added to the problems of many golf course operators. The boom years of the mid- to late 1980s saw an explosion in golf development from the United Kingdom to southern Portugal to middle Finland. As with other opportunistic endeavors of that period, many golf courses were built with little foresight or concern for the long-range economics of the project.

The explosive growth of the '80s encouraged golf developers who lacked the necessary combination of experience, vision and an understanding of the demands and requirements to see a project through from conception to operation. All too often, these were but neophyte developers lacking both the personal knowledge and access to others with prior experience to properly grasp the financial situation. Lack of players,

Golf course architect Ron Fream is president of Golfplan — Ron Fream Design Group, Ltd. He recently completed Kerigolf in Kerimaa-Savonlinna, Finland. He is currently working on a project with EuroDisney.



Ron Fream

declining levels of greens fees, slack membership sales, bankruptcies and empty clubhouses are the all-too-frequent results.

While new golf development is generally on hold in Europe today, the sport is still a popular one which is attracting more players than it is losing each year. In light of this, the overall demand for golf facilities will resume or continue to grow at a rate of perhaps 3 to 5 percent a year — definitely less than before, but growth which must be accommodated nonetheless.

One significant fact which has emerged from the trauma of recent and ongoing European economic realignment is the need for future developers of golf projects to more clearly and precisely define both their market and its long-term financial capacity. Examples of poorly designed, cheaply built, miserably maintained golf courses which are little more than cow pastures are common. Lavish, prestige- or ego-driven "name" or signature projects are suffering now too, on occasion, due to enormously high levels of expenditure not necessarily spent wisely or efficiently.

It is easy to spend too little on golf construction. It is perhaps even easier to spend too much on golf construction.

Unfortunately, many would-be developers of golf courses in Europe and Scandinavia are first-time players in what really is a complex, no-holds-barred business. Naive developers, opportunistic would-be golf architects, contractors of questionable knowledge and ability, and greenskeepers of modest capabilities have frequently attempted projects themselves or served as "consultants" on projects where the developer, promoter or money-man perhaps knew more than his "consultants". At worst, the financial side was no more experienced than the neophyte consultants.

Financial feasibility studies, market analysis and market targeting can help to guide the planning and design of a project. It is simple economic analysis which points out that a creatively-designed golf facility which cost the equivalent of 4 or 5 million US dollars to build, and plays to full capacity of approximately 150 or 200 rounds per day will generate more profits than a signature or "name" course costing 2 to 3 times more which can only realize half the play with significantly higher greens fees.

It is becoming obvious, almost worldwide, that making the numbers add up favorably in the long-term may not be a sure thing when big name, big budget,

Continued on page 35

Review

Not much balance in Gore's environmental treatise

By DR. ELIOT C. ROBERTS

Public concern for the state of our environment is real. Golfers, course superintendents, and neighbors must know that practices followed in managing resources are environmentally sound and in the best public interest. This can be difficult when so much gloom and doom is associated with land, air and water quality.

Sen. Al Gore's book, "Earth in the Balance: Ecology and the Human Spirit," is must reading to understand more about the serious environmental issues confronting humankind. But please temper it by reading "Out of the Earth: Civilization and the Life of the Soil" by Daniel I. Hillel, professor of Soil Physics at the University of Massachusetts, published in 1991 by The Free Press. Hillel's book is parallel but he writes as a scientist and doesn't get

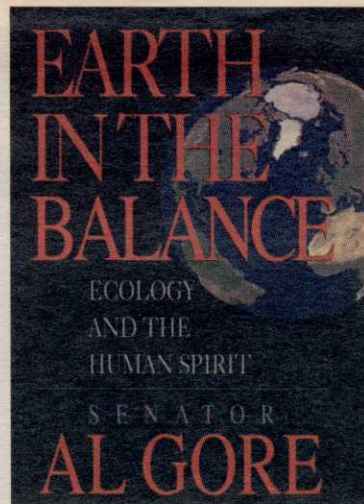
Dr. Eliot Roberts, the former Lawn Institute executive director, is a former department chairman at the universities of Florida (ornamental horticulture) and Rhode Island (soil science).

involved in the politics.

The strongest part of Gore's book has nothing to do with ecology but with the human spirit and how lost we are in terms of caring for the land around us, as God would have us.

Beware of one thing: There's no question that landfills, solid waste, and pollution of streams and rivers. It's a lot easier to talk about those kinds of pollution and be accurate with scientific detail. But Gore mixes this with changes in the atmosphere; and, despite what he says, no one has near conclusive evidence in that area.

When expedient, he downplays opponents of his views in the scientific community. He suggests only 2 percent disagree with his claim of the dangers of global warming. Indeed, among the agricultural scientists, few agree with



him. Because of Gore's emphasis on ecology and the human spirit we need to review some of his thinking.

Gore states, "The ecological perspective begins with a view of the whole, an understanding of how the various parts of nature interact in patterns that tend toward balance and persist over time."

He adds, "Ecology is the study of balance, and some of the same principles that govern the healthy balance of

elements in the global environment also apply to forces making up our political system."

But the fact is that ecological principles have nothing to do with balances. Life forms flourish or perish in response to environmental fluctuations as they adjust or fail to adjust to never-ending change. It's only when humankind places value on one life form over another that the element of balance comes into play.

Politically, we tend to place supreme importance on perpetuating our standard of living and quality of life at all cost.

Gore defines politics broadly as "the means by which we make collective decisions and choices."

In another sense, politics is the art and science of the possible. When you or I believe a certain course of action is possible and we desire to see change, we become political in our effort to make something happen. Politics has nothing to do with right or wrong, fact or fiction, good

Continued on page 34

X.G. Hassenplug, 84

PITTSBURGH — X.G. "Xen" Hassenplug, 84, a golf course architect who practiced primarily in the Northeast, died Sept. 24, from cancer.

A fellow of the American Society of Golf Course Architects, Hassenplug designed Overbrook Golf Club in Radnor, Pa.; Seven Springs in Champion, Pa.; Lone Pine Golf Club in Washington, Pa.; Seven Oaks Country Club in Beaver, Pa.; and Coonskin Park in Charleston, W. Va.

A civil engineer, Hassenplug began his golf career on the construction side in 1946. When architect I.B. McGovern died during construction of Overbrook Country Club, he finished the



X.G. Hassenplug

project. He then went on to work with architect Dick Wilson on two high-profile projects in Pennsylvania — Radnor Valley near Philadelphia and Westmoreland Country Club near Pittsburgh.

Upon completion of these projects, Hassenplug entered private practice, combining golf course design with his knowledge of land planning, irrigation and civil engineering. He designed 30 courses and remodeled another 17 — mostly in Pennsylvania and Ohio.

He is survived by his wife, Grace; son, John; two grandchildren; and his sister, Betty Ink.

Memorial donations should be sent to Fox Chapel Presbyterian Church, 385 Fox Chapel Road, Pittsburgh, Pa. 15238.

Clifford L. Demming, 84

BRIDGTON, Maine — Clifford L. Demming, 84, a golf course architect, superintendent, and musician, died at a local hospital after a brief illness.

Mr. Demming got his start at designing and building golf courses in the early 1920s, when as a teen-ager he helped his father, Grant Wilson Demming, in the design and construction of Grantwood Golf Course in Solon, Ohio. Right after high school, Mr. Demming went to work maintaining his father's golf course, and by age 20 he was head greenskeeper at Grantwood, a job he held until 1940.

After his family sold Grantwood, Mr. Demming went to Aurora (Ohio) Country Club as superintendent. In 1943 he designed and built Sleepy Hollow Country Club on the Chagrin River near Cleveland, and was superintendent there for many years. He spent most winters in Florida and during the 1950s and 1960s he designed and built Mount Dora (Fla.) Country Club.

Mr. Demming was a member of the Golf Course Greenskeepers of America and the All States Club of Eustis, Fla. He retired in 1970 and moved to Bridgton, where he was a drummer in the Bridgton Town Band.

Surviving are his wife of 54 years, Esther S. Smith Demming of Bridgton; a son, of Fort Devens, Mass.; a daughter, of Bridgton; a brother, of Richmond, Va.; five grandchildren, and a great-granddaughter.

Golf Course News earns design award

YARMOUTH, Maine — *Golf Course News* has been awarded an Ozzie Award for Design Excellence, bestowed by the editors of *Magazine Design & Production*.

Golf Course News received an honorable mention in the category of "Best Overall Design, Tabloid or Business Newspaper." More than 1,500 entries from publications across the United States and Canada were received in this class.

According to *Magazine Design & Publisher*, Michael Kreiter: "Each and every entry was carefully screened, reviewed, and evaluated by a nationwide panel of judges — demanding professionals who have won scores of national design awards themselves. And the judges agreed: This year's competition was the toughest ever."

"Congratulations to... your staff for producing an exceptional publication."



The Most Profitable Golf Car For Your Course. Shown With Its Closest Competitor.

Improved comfort. Increased performance. Unmatched efficiency. No other golf cars can measure up to the 1992 E-Z-GO gas and electric cars.

Our new gas car features the first twin cylinder overhead cam engine in the golf car industry. More power. Less noise. And performance unequalled by any single cylinder engine.

And our electric car, with the solid state energy control and the Total Charge® charger, is still the most efficient electric golf car money can buy.

Both cars give you more rental time on the course. Trademark smooth ride. Flexible financing options. And the industry's most extensive service network. That all adds up to higher profitability.

Maybe that's why more of the top 100 golf courses run with E-Z-GO than any other car. Call 1-800-241-5855 to find your nearest E-Z-GO representative. Take our car out for a test drive. You'll see there's just no equal.

EZGO TEXTRON
E-Z-GO Division Of Textron, Inc. ©1991 E-Z-GO Textron

BRIEFS



HURRICANE RELIEF SENT

South Florida golf course maintenance employees whose homes were destroyed or damaged by Hurricane Andrew are getting help from their "golf family." The Florida GCSA has established a relief fund. First financial shot was fired by the Palm Beach GCSA, which donated \$1,000. West Virginia's GCSA matched that. The Carolinas and Georgia GCSAs were as quick to offer assistance. Relief fund checks payable to the FGCSA should be sent to 1760 Northwest Pine Lake Drive, Stuart, Fla., 34994; phone number is 407-692-9349.

LAKE CONFERENCE HELD

CINCINNATI — The North American Lake Management Society's (NALMS) 12th annual International Symposium, geared to protecting and enhancing surface water quality, will be held here Nov. 2-7. While many of the workshop topics will be highly technical, there will be many presentations for volunteers who monitor water quality. The symposium comes during the 20-year Clean Water Act, which is under review and revision by Congress. More information is available from NALMS, One Progress Blvd., Box 27, Alachua, Fla. 32615; 904-462-2554.

COURSECO NABS RODGERS

FRESNO, Calif. — Gary Rodgers, superintendent at Riverside Golf Course and former board member of the Central California Chapter of the GCA of California, has been named director of maintenance and construction for CourseCo, Inc. Based in Fresno, he will continue as superintendent at Riverside. He will plan and oversee maintenance and construction at all CourseCo-managed facilities.

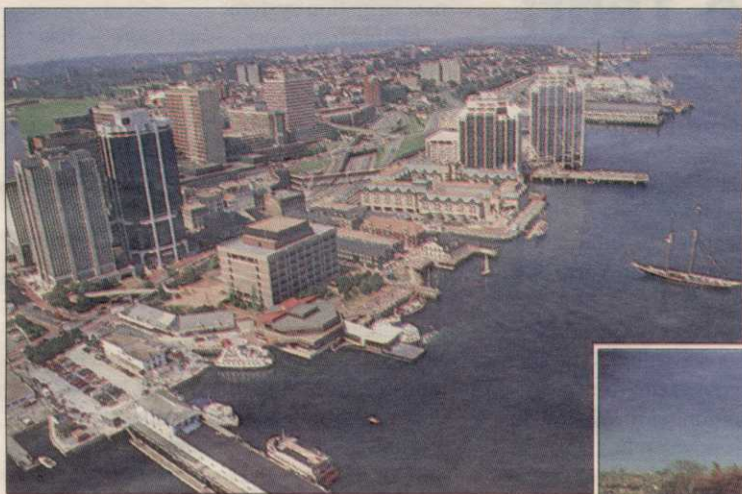
Rodgers has been superintendent and agronomist at Riverside since 1989.

HAYES GCSAA EDUCATION MANAGER

The Golf Course Superintendents Association of America has named Alan Hayes education manager for technical training. Hayes will conduct and refine spray technician seminars and help develop other topics for the organization's technical training.

TAAGEN HIRED AT CORDILLERA

EDWARDS, Colo. — Cordillera has named Timothy T. Taagen superintendent, according to Gerry Engle, project general manager. Taagen will be responsible for all facets of construction, operation and maintenance for the 7,500-yard, par-72 Hale Irwin-designed course, which is scheduled to open with all 18 holes in 1994. Taagen, 28, has worked for three of the top 50 courses in the country. Most recently, he was superintendent at Green Gables Country Club in Denver. Prior to this, he was Assistant Superintendent at Cherry Hills Country Club in Denver.



Scenic Halifax (above), sitting on the east coast of Nova Scotia, is the site for the Canadian Golf Superintendents Association's 44th Canadian Turfgrass Conference and Trade Show. Halifax, itself, is home to some wonderful golf courses, including Ashburn Golf Course (right). The event, Nov. 29-Dec. 2, is being held in the World Trade and Convention Center and Halifax Metro Centre. Despite the time of year, weather is not normally a problem in Halifax. Most all of the major hotels, the convention center and shopping malls are connected by elevated "pedways" — enclosed walkways connecting the buildings — that can bring you indoors from the harbour up to Citadel Hill. The Prince George Hotel, the headquarters hotel for the conference, is connected by an underground tunnel to the World Trade and Convention Centre.

By MARK LESLIE

HALIFAX, Nova Scotia — The speakers program and attendance is expected to be the best in years, but trade show booths are down for the 44th Canadian Turfgrass Conference and Trade Show, to be held here Nov. 29-Dec. 2.

According to Vince Gillis, executive director of the sponsoring Canadian Golf Superintendents Association, "We anticipate the attendance will be as good or better than in years" to hear an all-star lineup of speakers.

But the economy "has taken a bite this year," he said.

"We're looking at the neighborhood of 50- to 60-percent capacity. We average 25,000

net square feet. Last year in Toronto we had 23,008 square feet. We were sold out, full to capacity. Exhibitors were hanging from the rafters.

"This year we were banking on 18,000 square feet and we're at 10,000."

Gillis blamed the registrations on the economy and distant Atlantic Coast location.

"Even friends of many years instead of taking six or eight booths are taking four or five. One takes two and he's taking one," he said.

Gillis said daily attendance may be down from previous years, but full-time attendance will be greater than normal — drawn by the talks by such notables as Drs. Paul Reike of

Michigan State University, Tom Watschke of Penn State University, Dr. Richard Cooper of the University of Massachusetts and Robert Carrow of the University of Georgia, U.S. Golf Association Green Section National Director Jim Snow, and architect Thomas McBroom.

Gillis feels "a sleeper in terms of interest" will be a panel discussion Wednesday morning on where golf is headed. The panel will include Canadian PGA Pro Linden Garrow; club manager Dick Grimm of The Royal Canadian Golf Association, who has run the Canadian Open for a number of years; Canadian GSA President Paul White; and Golf

Continued on page 13

North of the border, Canada draws supers to 'learning' show



Photos courtesy of Nova Scotia Tourism & Culture

HydroJect's influences debated

The following story has been reprinted from the MET GCSA Newsletter, with permission of the Metropolitan Golf Course Superintendents Association.

By PAT LUCAS

Not since the introduction of the triplex greensmower has a single piece of equipment generated as much interest as the Toro HydroJect (HJ). Its initial attraction was that it allows you to aerify with only minimum surface disturbance. But after a year-and-a-half on the market, what most superintendents are more interested in knowing is, "Does it really work?"

Though, admittedly, there's still a lot to be learned, I and several other area superintendents who have used the HJ extensively can shed some light on the inner workings — and the pros and cons — of the machine.

My hope is that they'll spare you hours of trial-and-error when operating the Toro HydroJect on your course.

Bob Alonzi, CGCS, Winged Foot Golf Club, Mamaroneck, N.Y.

Objective: We're a heavily played club, so we get a lot of soil compaction—particularly in June, July, and August. Our prime objective with the HydroJect was to try to alleviate that compaction without inconveniencing our membership.

Use: Last year, we did all the greens twice

during the summer and once late fall. The fall treatment was intended to improve drainage during the winter.

This year, we went out in July and again just recently to alleviate any stress.

Results: The HJ, combined with other practices, such as summer patch control, and spring and fall coring—does seem to help combat the effects of heavy play on our small greens. It's hard to tell, though, whether our fall treatment did improve drainage.

Comments: A concern I have with long-term use of the HJ is soil separation below the surface. This situation should be carefully monitored. I don't think the HJ replaces coring. Coring allows you to modify the soil by incorporating amendments into the holes. I think, for now, it's best to stick to a program that combines conventional coring with deep aerification and HJ use during the summer. If nothing else, this type of program will offer a better balance in fighting compaction.

John Gallagher, Racebrook Country Club, Orange, Conn.

Objective: Our greens suffer from soil compaction, which has created puddling, reduced infiltration, and shallow rooting. To remedy some of these problems—with only minimal disruption to the playing surface—we began using the HydroJect last year.

Use: We do some of our problem greens once a week during the season—not necessar-

Continued on page 14

Int'l experts share wisdom at symposium

By PETER BLAIS

A record number of scientific research papers, many from abroad, will be presented at the 7th International Turfgrass Research Society meeting scheduled for July 18-24 at The Breakers Hotel in Palm Beach, Fla.

The 160 accepted papers is almost double the previous high of 98 presented at the 1989 Tokyo conference. About one-third of this year's presenters are from outside the United States.

"The goal is to exchange information regarding turfgrass research on an international basis every four years," said Toro Co. consultant Jim Watson, one of the organizers.

"It has been dominated by the United States in the past. But each time the international segment has become more and more important."

The meeting is being divided into two symposiums, according to program chairman Bob

Continued on page 14

Canada's Super of the Year:

Thom Charters maps way for progress at home and away

By MARK LESLIE

Canada's 1992 Superintendent of the Year, Thom Charters, would refuse the pedestal. But he could be offered by superintendents on more than one continent as the model to which to aspire.

The manager of fashionable Weston Golf and Country Club in Toronto has fashioned a lifestyle that has him involved 1) locally (on a committee devoted to cleaning the Humber River); 2) provincially (as vice president of the high-powered Ontario Turfgrass Research Foundation); 3) nationally

(as a founding director of the pioneering Green Care Horticultural Association); and 4) internationally (playing on the Canadian Golf Superintendents Association's winning team at the International Greenkeepers Tournament in Yorkshire, England, in 1991).

As the course manager of Canada's 12th-ranked course, according to SCORE magazine's 1992 survey, Charter's first priority is the conditioning of Weston. In his six years at this position he has overseen the rebuilding of all the bunkers, rejuvenation of the trees, upgrading of the

maintenance facility, and installation of a new irrigation system.

All this hard work — and more — has earned Charters the honor as Superintendent of the Year.

A 1976 Penn State University alumnus, Charters may put his most indelible imprint on Green Care, formed in 1989 to pull together the green industry in the face of misinformation and those he calls "enviro-maniacs."

Borne out of the need to deal with regulations, Green Care is composed of 21 associations from a cross-section of the industry, from superintendents to sod growers, arborists to landscapers.

The goal: A stronger voice.

"Our message isn't to lobby for or against specific legislation, but to bring about keener awareness in the public and among legislators of just how important healthy green space is," Charters said, "and that responsible professionals care for it. The problem is with enviromaniacs getting front-page news. The common perception is that chemicals are not being used correctly."

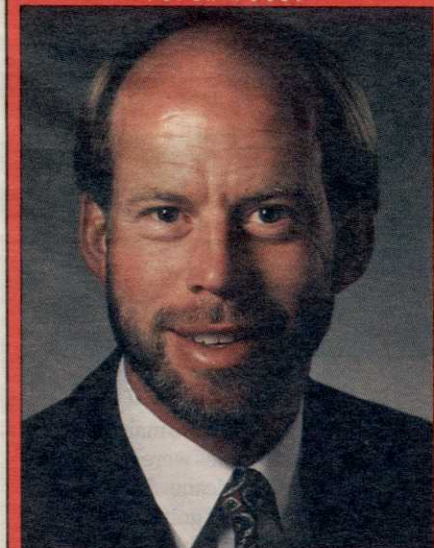
Charters also pointed the finger at extremists on the other side of the equation.

"Green Care is common-sense, middle-of-the-road," he said. "We're not pro-pesticides, but we are supportive of the use of those products as required to maintain a healthy green space. The benefits of healthy green space are many — oxygen production, soil stabilization, ground water recharging, esthetic impact, and on and on and on. It would be foolhardy to think we could nurture these things — especially in municipalities where we're asking nature to compete with men, asphalt and concrete, etc. — without intervention."

Formed by Charters and Kent Groves of Nutri-Lawn International Inc. in Toronto, Green Care has representatives from most all the provinces and is trying to network nationwide.

Charters said: "We're asking that people forward to us published information that isn't factual. We will respond, refute the disinformation and send factual information. We also provide a 40-page booklet, 'A Scientific Response to the Urban Anti-Pesticide Lobby,' a major undertaking

SUPER FOCUS



Canada's Super of the Year, Thom Charters

written by scientists.

Meanwhile, as a director since 1987 and vice president since 1990, Charters was instrumental in the Ontario Turfgrass Research Foundation's (OTRF) \$1.2-million fund-raiser to build the Guelph Turfgrass Institute, according to CGSA Executive Director Vince Gillis.

The facility will open next spring, housing a half dozen scientists as well as the OTRF and Ontario GSA headquarters.

Charters is high on the future of the institute, which he called "a world-class facility, a unique combination of the university, government and private sectors working together." The land was donated by the Provincial Government. The University of Guelph will manage it. And private industry raised the funds necessary to build it.

Charters and his colleagues look with expectation to new benefits of research to even rival those of the past that have greatly changed the way they do their job.

"The science supporting us has advanced in leaps and bounds," he said.

He pointed to great improvements in the last 15 years in course covers, lightweight mowing, clipping removal on fairways, aeration techniques and equipment, irrigation technology and personal computers.

"No question, the environmental concerns are a big change," he said. "Not that we were irresponsible then. We just get a lot more questions now. We posted [spraying] voluntarily. Now it's legislated."

"Our own members ask more questions now. That will only increase. I think people have become a lot more aware of the different factors course superintendents deal with. When I got into this business, I could count on the comments, 'Boy, you've got a great job.' Now I hear people say, 'Boy, I wouldn't want your job for the world.'"

Charters said the extra pressure on his members in today's society is so strong "they can't relax and enjoy things as much as they once did. There's more pressure on them and it trickles down to me. Life in the '90s is not comparable to life in the '70s. It would be silly to think that life for a superintendent would be any different."

But although greenkeeping has become a much different creature since he began his career, he wouldn't consider a new direction if he had a chance to do it again.

"I love my job," said the husband and father of sons 11 and 14. "And I love Weston," he said of the Willie Park Jr.-designed golf course that has hosted the Canadian Amateur and the Cadillac Skins Game, and was the site of Arnold Palmer's first professional victory, the 1955 Canadian Open. "It's a little bit of the country right in the city."

AquaGro 20•Spreadable. More Concentrated, 15% Less Expensive To Use.



Spread The Word.

Turf managers everywhere are spreading the word that the number one selling soil wetting agent costs less than ever before to apply. All the more reason to use the new AquaGro 20•S to solve your water related problems.

New AquaGro 20•S gives you the same outstanding performance as the old formulation, it's just more concentrated. And we're passing the cost savings on to you. What used to cost about \$4.40 per 1000 sq. ft., now costs less than \$3.75 — that's a 15% savings.

Just like the other AquaGro formulations, AquaGro 20•S speeds the movement of water into dry spots, compacted soils and slopes, drains wet areas and moves water soluble chemicals through thatch.

No other soil wetting agent manufacturer offers you the money-back performance guarantee that's printed on the front of every bag.

Lower price, guaranteed performance — that's an unbeatable value.

So when the heat is on, use AquaGro 20•S; it helps you make the most of available water.

To find out how the new, economical AquaGro 20•S can make you a better water manager, call us for a FREE copy of the User's Guide.

1-800-257-7797.

Another Reason To Use AquaGro.

AQUATROLS
The Water Management People

5 N. Olney Avenue
Cherry Hill, New Jersey 08003

SOIL-FREE SOD?

Yes, **StrathAyr soil-free Penncross creeping bent and "Executive Blend" bluegrass sod** has arrived in the Midwest!

Benefits include:

- No interface problems.
- Amazing rate of rooting.
- Quick playability
- Lightweight/easy installation.
- Lower shipping costs.

CALL US FOR DETAILS!

IR HUBER RANCH SOD NURSERY

Rt. 41 Schneider, IN
1-800-553-0552

Compare and Contrast:

Market-bound products handle their tasks differently

By MARK LESLIE

Nearly a decade of research has been done on the pioneering subsurface injection machines. So, what are the differences?

Prof. Mark Sears of the University of Guelph in Ontario said, "I think they're comparable."

Most all force water, at high pressure, into the ground, causing probes that look similar to aeration holes.

Rogers Innovative's Liquid Pulse Injector (LPI) is "a Cadillac unit," Sears said. "You can set all the variables. It's larger [than the Toro HydroJect—48 versus 33 inches]. It runs on hydraulic pressure and you need a good-sized tractor. It also has a 300-gallon tank, so you don't have to carry a hose around like the HydroJect.

Calling the LPI "big and a bit cumbersome," Sears noted that Rogers is working on a smaller unit that mixes chemicals into water.

Units on the Pattison Brothers Agro's Spoke Injector, according to President Rick Pattison, can be joined to make it anywhere from one to 50 feet wide.

Rogers President R. Barry Rogers said his LPI pulses liquid electronically, compared to the mechanical operation of the HydroJect and Spoke Injector.

"That gives us flexibility in pressure, plus makes it easier to adjust the length our valves are on as we go along," Rogers said. "You have to dig in [the ground] and find out the depth the water has gone. That will vary according to type of soil, but you can regulate



Pattison Bros. Agro Ltd.'s prototype for its subsurface injection machine

it by the pressure and by the size of the jet stream, which we can reduce as low as 13/1000ths of an inch."

The HydroJect is set up so that the operator must use most of the volume. The LPI volume is adjustable. The Spoke Injector operates on 20 to 50 pounds pressure.

"Our unit is electronically controlled by a digital computer," Rogers said. "In the future it will be made to sense the color of the grass and adjust the application."

He said the LPI can put down insecticides at one gallon per 1,000 square feet, or go as high as 28 gallons of water per 1,000 square feet while aerating.

"The more water you use, the more aeration, fraction and lift in the soil," he said.

The LPI can speed along as fast as 3.4 mph, which equates to 72,000 square feet per hour injecting pesticides. It can pump nine A gal-

lons per minute.

Ransome America's Liquidator was birthed in the LPI. Rogers licensed it to Ransome to manufacture self-propelled models, something the Rogers plant is not equipped to do.

Marvin Jaques, director of engineering and technology at Ransomes America, was reluctant to discuss specifics about the Liquidator.

It will use the same chassis as that used on Cushman's deep aerator, Jaques said.

Jaques said the Cushman/Ryan prototype using a colter is "on our palette of things we're looking at and working on. There are two distinct mar-

kets: the golf course and large turf areas; and the home lawn maintenance. The requirements are different for the products and what they do. You can break that up into liquids and granular. We're trying to address the needs of everyone."

Pattison's Spoke Injector is

a pull-behind unit equipped with a round wheel with 12 spokes on it that come from a center hub. When the spokes enter the ground in the down position, the hub injects liquid into the soil under pressure. When the spokes leave the ground, they seal up.

It injects on a six-inch grid and can inject from 1-1/2 to two inches deep with one set of spokes and three inches with a second set.

Pattison said the Spoke Injector has been sold since 1990 in the agricultural market for fertilizer applications. It has had to undergo modifications for a pesticide application.

While not a lot of testing has been done on white grubs with these machines, Rogers said he has "shot polymers into the ground" with the LPI, and Dr. Drew Smith at the University of Saskatchewan is testing its use of fungicide for fairy rings.



Rogers Innovation's Liquid Pulse Injector at work.

Manufacturers trying to perfect systems to inject below ground

Continued from page 1

Department of Environmental Biology has done tests with the HydroJect, Spoke Injector and LPI and says there are two areas of "great potential" for these machines.

"One is that [subsurface injection] gets the pesticides right at the grubs, where they live, without having to leach it through the thatch. If we can cut our rates by half, it's great.

"The other benefit is, in Ontario we have strict regulations on putting a product on turf. This way we can inject it below the surface to avoid surface runoff and human contact... It's more efficient and it's more environmentally sound."

Sears discounted worries that injecting chemicals may increase the potential for polluting ground water, saying that most emulsifiable concentrates are immobile.

Meanwhile, Dr. Harry Niemczyk, professor emeritus at Ohio State University, who has been studying subsurface injection in cool-season grasses since the early 1980s, believes all the hard work and high finances may have no pay-off in results.

"We're not convinced that any kind of point injection system will work," he said. "We think subsurface placement is the most likely to work. The injection system is the least likely to be useful. This is a very, very precise placement. You have to get the grubs where they live—where the thatch and soil meet—one-half to three-quarter-inch deep in cool-season grasses."

Niemczyk, working with project leader Dr. Dave Sheilar at OSU, said tests have been moderately successful placing liquid and granular material through a Cushman/Ryan

prototype for an unnamed machine. Using an eight-inch colter disc, the device makes a slice in the turf and a tube behind the colter delivers the material into the ground.

"We have worked with this extensively, and our success with the colter system has been limited at best. And I don't think we can do a better job of placing it. The results are not yet as good as with broadcast surface treatment," Niemczyk said.

"Theoretically, it should work. But we're dealing with a living organism. And how they behave when they encounter the chemical is another matter. It's like shooting ducks. You either have to hit the animal on the nose or else. If you place it below the grubs you've missed them."

Saying tests show that pesticides do not move vertically or laterally, he said, "The pesticide doesn't come to the grub. The grub has to come to where the pesticide is. We're talking about a grub population at the thatch soil interface that can range from two or three to 15 per square foot."

Yet, Niemczyk did not discount manufacturers' efforts.

"Someone may come up with a system that works," he said. "I wouldn't discourage anyone anybody who has an idea, for a point injection system or whatever."

Marvin Jaques, director of engineering and technology for Ransomes America, said if subsurface injection is perfected, "The big gain will be in the public. We hope for commercial success, but we also hope it will evolve into an environmentally sound product. That way, everyone wins."

Deaths illustrate importance of protection

TEXARKANA, Texas—The importance of workers being provided—and wearing—protective clothing and equipment when working in confined spaces was emphasized after the recent deaths of three local workers overcome by toxic fumes from an underground storage tank.

One man was overcome by fumes as

they cleaned the tank, the others when they attempted rescue.

Edward K. "Red" Hayse, Texas Workers' Compensation Commission chairman, said the three men and four others who recently died in Texas while working in confined spaces might still be alive had they been wearing respirators or safety harnesses.

Halifax the venue for Canada's annual conference

Continued from page 11

Course Superintendents Association of America President Bill Roberts. Peter Hope, past president of Royal Canadian Golf Association, will be the moderator.

A special companions program and special nights will add spice to the program, which includes the Grey Cup party and opening reception Sunday, Nov. 29, a lob-

ster party Monday, skating party and East-West hockey game Tuesday, and banquet with dancing Wednesday.

Also, the 1992 Superintendent of the Year, Thom Charters (See story, page 12), will speak, broadcaster Danny Gullivan will deliver the keynote address, and General John Cabot Trail will entertain at the closing banquet.

<p>AMERICA'S PREMIUM HEAT-TREATED TOP-DRESSINGS</p> <p>PARTAC® GOLF COURSE TOP-DRESSING</p>  <p>PLUS CONSTRUCTION, CART PATH, SAND TRAP, AND DIVOT REPAIR MIXES</p> <p>TYPAR® GEOTEXTILES & TURF BLANKETS</p>	<p>Terra-Green™ USA MADE, NOT IMPORTED</p> <p>SOIL CONDITIONER IMPROVES AERATION AND DRAINAGE BETTER THAN SAND YET RETAINS NUTRIENTS & MOISTURE!</p> <p>PARTAC® GREEN SAND FOR DIVOT REPAIRS</p> <p>The Ultimate Solution to Unsightly Divots at Televised Golf Tournaments and other Sports Events!</p> <p>AVAILABLE NATIONWIDE 800-247-2326 IN N.J. 908-637-4191 PARTAC PEAT CORPORATION KELSEY PARK, GREAT MEADOWS, N.J. 07838 ORLANDO (FL) MEMPHIS (TN) RENO (NV)</p>	<p>HIGHLIGHT GOLF HOLES, IMPROVE VISIBILITY, and SPEED UP PLAY with</p> <p>U.S. GOLF HOLE TARGETS™</p>  <p>GREENGRAPHICS® GREEN PERMANENT TURF COLORANT SAND TRAP PUMPS RAKES, PLUG PUSHERS, SQUEEGEES AND MANY MORE GOLF SPECIALTY PRODUCTS</p>
--	--	---

HydroJect

Continued from page 11

ily the entire green, sometimes just the walk-off areas or other areas we know are highly compacted.

Results: With multiple blasts, we've gotten down eight to 10 inches. Adding a cupful of wetting agent into the filter housing seemed to help loosen the soil.

We know we're getting improved oxygen flow to the soil because greens that had two-inch root systems measured about four inches a month after an HJ treatment. Of course, the Vet-Drain has spurred even more vigorous root growth—about six inches in depth.

Comments: For severe soil problems, the HJ can't replace core aeration. Coring enables you to gradually improve the soil structure, and the plugs brought to the surface allow for soil-seed contact in the overseeding process. I also feel the HJ is not the cure-all for severe drainage problems. We've blasted several poor drainage areas 10 inches deep, and the water still sits there after a heavy rain.

Joe Camberato, Sleepy Hollow Country Club, Scarborough, N.Y.

Objective: I was looking to improve the oxygen exchange, root development, and water movement on my greens. I also wanted to

alleviate any surface compaction created by using a greens roller.

I decided to give try HydroJect because it's able to produce a hole deeper than conventionally, yet doesn't disturb the surface.

Use: Last year, we ran the HJ once in late spring and again in the fall.

Results: After our spring treatment — by the end of July — I saw considerable improvement in my root systems. I had problems with the greens drying out after treatment, but I was aerifying in the middle of a very hot summer. So I put wetting agent down, and that seemed to control the moisture loss.

I skipped my regularly sched-

uled core aeration in the fall and used the HJ instead. The HJ treatments definitely gave us better water movement. In fact, I had water movement down deeper into the green than I had roots.

Comments: We had a good season, but I'm not convinced yet that HJ treatments are substitute for core aeration. I plan to core aerify this fall.

Pat Lucas, CGCS, Innis Arden Golf Club/Earth Works, Old Greenwich, Conn.

Problem: Poor water quality, such as high concentrations of algae, can cause the HJ's on-board 5 micron filtration system to plug and shut down the machine. A built-in safety device

shuts down the unit when water pressure falls below 20 PSI.

Solution: Last August, Toro came out with an auxiliary portable prefiltration system—the Ametek #HD-10—that goes in-line at the water source and filters the water before it reaches the machine. With its 25 micron rope-type cartridge, this system handles even the most difficult water quality problems.

Problem: Taking the HJ's filter housings apart to change or flush filters is often difficult.

Solution: Coat both the housing treads and rubber "O" ring with silicone. Also note that Toro's

metal spanner filter wrench is a real knuckle-buster. Much better, we've found, is the full-circle plastic wrench available from Ametek.

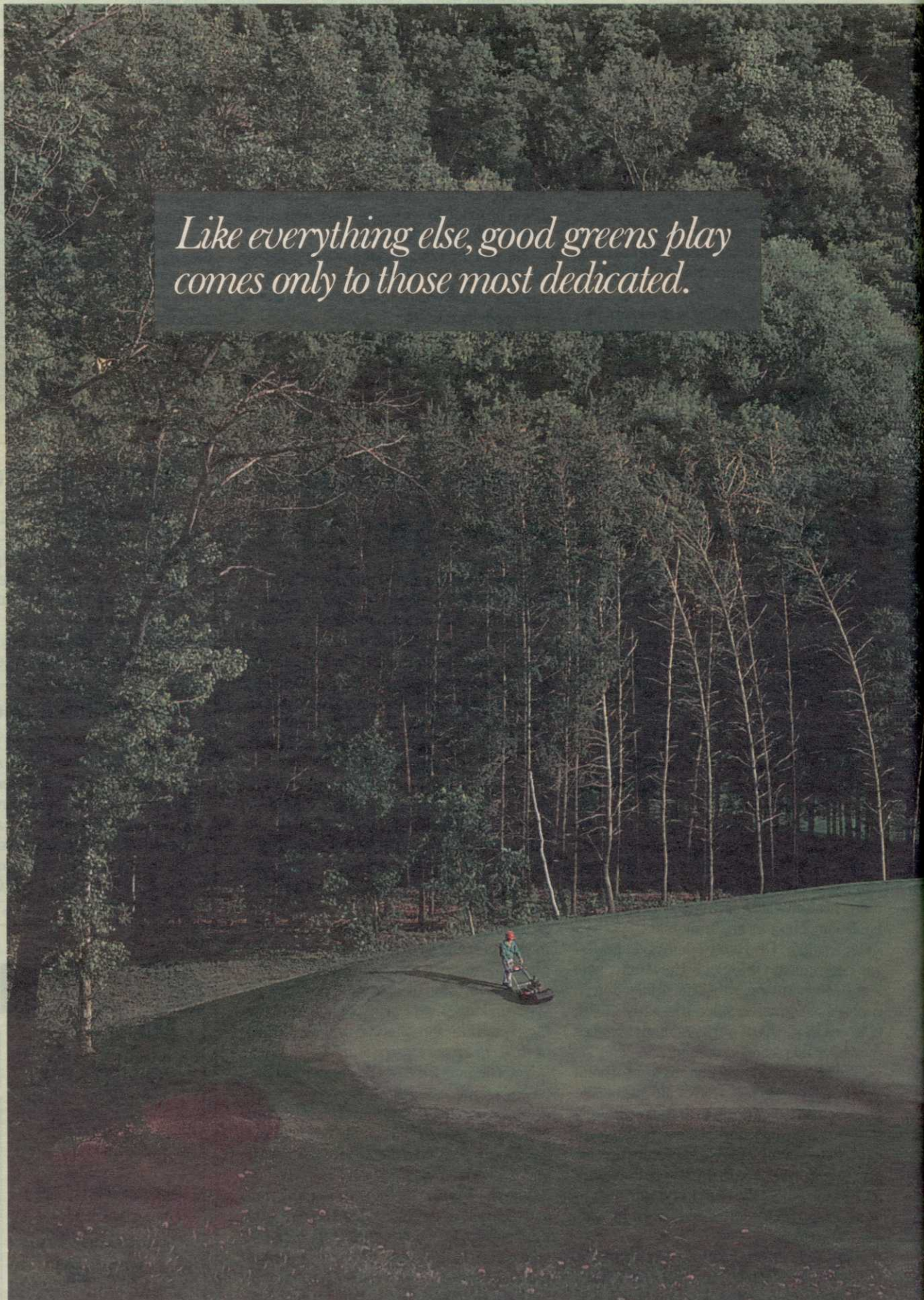
Problem: Nozzle wear diminishes the depth of penetration, which runs four to seven inches, depending on soil conditions.

Solution: A new nozzle's diameter equals a #53 drill bit. Anything larger indicates wear.

Problem: The accumulator tends to lose pressure when the HJ isn't used for long periods of time.

Solution: Be sure to have the HJ checked and recharged when you're ready to put it to use after a winter in the shop.

Like everything else, good greens play comes only to those most dedicated.



©1992 The Toro Company. The Toro Company, 8111 Lyndale Avenue South, Minneapolis, Minnesota 55420. "Toro" and "Greensmaster" are registered trademarks of The Toro Company.

Int'l symposium

Continued from page 11

Carrow, a turfgrass professor at the University of Georgia.

The first is characterization of sports fields — developing standards and objective measurements that can be used to determine the quality of a certain facility. For golf, Carrow said, that might mean coming up with a stimp-meter-type measurement to determine proper backspin on a ball struck to the green or how far a ball should roll through a fairway. Those figures could be used to develop a new course or improve an existing one, he added.

The second symposium will deal with pesticide and nutrient fate research.

The large number of papers will likely require concurrent sessions, Watson said.

Approximately 25 keynote speakers will present their research on narrower topics dealing with integrated disease and insect management, Carrow said.

"The idea is to determine where we are at in terms of turfgrass research and what are the holes that need filling," he added.

All the papers will be published in the International Turfgrass Research Society Journal, which will be available for about \$50.

The registration fee is \$425 for all events including the welcoming buffet, beach party, mid-week turf tours and banquet. Spouse and children's programs are available. For more information contact George Snyder, University of Florida — EREC, P.O. Box 8003, Belle Glade, Fla. 33430 or telephone 407-996-3062.

Study: Ammonium sulfate fertilizer fights summer patch

A new study shows that ammonium sulfate fertilizer (21-0-0-24S) suppresses summer patch, a fungal disease attacking the roots of grasses, according to Dr. Joseph Heckman of Rutgers University.

Heckman said the intensity of this turf disease increases during hot, humid summers. Summer patch affects Kentucky bluegrass, annual bluegrass and fine fescues.

Heckman has been working with Rutgers plant pathologists David Thompson and Bruce Clarke. Thompson said it appears ammonium sulfate's effects on summer patch are linked to the lower soil pH achieved when using this fertilizer.

"Ammonium sulfate reduces soil Ph almost

immediately and that has been shown to suppress summer patch in our test on Kentucky bluegrass," Thompson said. "Urea lowers the pH in the long term, but in the short term it actually increases the soil ph and urea does not suppress summer patch."

Neither calcium nitrate nor potassium nitrate offer the pH lowering effect found with ammonium sulfate, according to Thompson.

Tests in 1991 showed a 60-to 80-percent reduction in summer patch when ammonium sulfate was applied and a 35-to 45-percent reduction when sulfur-coated urea was applied compared to urea or nitrate.

Thompson also said ammonium sulfate caused

a delay of three to five weeks in the development of symptoms while sulfur-coated urea only showed a one to two week delay of symptoms compared to nitrate nitrogen.

Kentucky bluegrass is grown in pH levels between 6 and 7, but Thompson's research shows that this grass also grows well at pH levels in the mid-fives. It is in the fives that Thompson said summer patch is best suppressed. That's also the preferred pH level for bentgrass.

Thompson said it is often hard to foresee if the weather will be conducive to summer patch problems, and fungicides must be applied as preventive treatments at high rates due to the soil-borne nature of the disease.

GCSAA's lineup loaded for int'l show

ANAHEIM, Calif. — From sunup to sundown, educational opportunities will abound at the 64th International Golf Course Conference and Show Jan. 23-30 here.

About 600 exhibitors, many introducing new product lines, will provide a first-hand look in design, construction, management, maintenance, renovation and restoration of golf courses.

It's timely opportunity to examine merchandise and network with other professionals about the latest technologies directly related to the golf course management industry.

The trade show aspect opens at 9 a.m. Thursday, Jan. 28, and closes at 1 p.m. Jan. 30.

Preconference education seminars, embracing 54 one or two-day sessions Jan. 23-26, will highlight environmental concerns confronting golf course superintendents.

Concurrent educational sessions will span course management techniques, and forums and sessions will deal with such topics as the innovative superintendent, employee issues, financial planning, computer use, pest management technology, course officials, reclaimed water and equipment management.

Members of the American Society of Golf Course Architects will be spotlighted Jan. 29, and the USGA's Green Section Program takes center stage Jan. 30.

James T. Snow, USGA Green Section national director, will chair the program labeled, "Fitting The Pieces in the Golf Course Management Puzzle."

Gary Bennett of Crickentree Country Club, Columbia, S. C. is expected to attempt defense of his course superintendent title in the 36-hole medal play tournament Jan. 23-24 at San Diego.

Johnny Bench, Baseball Hall of Famer and considered the game's greatest catcher, will keynote the opening session and reception Tuesday evening, Jan. 26. He's as proficient at the dinner-speaking plate as he was behind home plate.

Bench will gladly yield the entertainment spotlight to Dinah Shore. "Synonymous with the great names in golf, like Crosby and Hope," notes William R. Roberts, president of the event-sponsoring Golf Course Superintendents Association of America, Dinah will receive the prestigious Old Tom Morris Award.

"Her contributions to the LPGA and golf in general make her a perfect addition to the illustrious group of Old Tom honorees," added Roberts.

Golf legend Patty Berg will make the presentation.

The Beach Boys will perform at the annual banquet and show the closing evening.

Some golfers think that

golf course super-

intendents have

it made.

If they only knew.

They'd be shocked to learn the demands and complexities of your profession. And amazed, for example, at how much hard work and long hours it takes to create superb greens with mowers set within a thousandth of an inch.

Toro knows. Our Greensmaster® 1000 and 3100 greens mowers were born of your dedication to keeping those greens superb.



Greensmaster® 1000. Superintendent rated the world's best walk greens mower.

It's another example of how we've worked as partners with three generations of golf course superintendents. To provide you with the precision engineered tools you need to create exceptional playability and beauty.

Because we share your dedication.



Helping You Put Quality Into Play.™

Southeast

GEORGIA CONCLAVE SET

ATLANTA, Ga. — Carolyn Boyd Hatcher, Georgia Conservancy president and CEO, will give the keynote address at the 23rd annual Georgia Turfgrass Conference and Trade Show here Dec. 8-10.

First-day workshops will cover pesticide license training and examination; media and government relations;



introductory turfgrass management; disease management, and pesticide management in compliance with the law.

The Georgia Golf Course Superintendents Association's annual meeting at 11:15 a.m. will feature second-day activities, and the final morning will be devoted to concurrent symposiums on bentgrass, weed control and irrigation.

Other speakers include Tommy Irvin, Georgia Department of Agriculture commissioner; Gary Black, Georgia Agribusiness Council president, and William Flatt, dean, University of Georgia College of Agriculture and Environmental

Services.

CAROLINAS PLAN CONFERENCE

MYRTLE BEACH, S. C.— The Myrtle Beach Hilton is headquarters for the Carolinas Golf Course Superintendents Association's 22nd annual conference. Clemson University is event co-sponsor.

Scheduled Monday are two seminars — wildlife management and habitat conservation, at the headquarters hotel, and spray technicians workshop at Wild Wing Plantation Golf Course.

A six-hour golf course service technician seminar also is due Monday at the Hilton. The trade show is booked Monday and Tuesday.

Northeast

LASORDA HEADLINES NY EVENT

ROCHESTER, N.Y. — Los Angeles Dodgers Manager Tommy

Lasorda will be the keynote speaker at the New York State Turfgrass Association's annual conference and trade show, Nov. 10-13, at the Rochester Riverside Convention Center. Lasorda will speak at 9:30 a.m. on Wednesday, Nov. 11.



day, Nov. 11.

On Wednesday and Thursday, the program will feature concurrent sessions geared to golf course superintendents and lawn and landscape and athletic field personnel. New this year are a business management track featuring Charles Vander Kooi and a special session on irrigation.

Five one-day seminars will be held on Tuesday, Nov. 10. They are:

- Ornamentals, Site Assessment and Early Maintenance
- Turfgrass Management: Back to Basics
- IPM Program Implementation
- Irrigation and System Design: How Each is Changing
- GCSAA Seminar, Developing Your Hazard Communication Program

Among the other speakers are nationally renowned turfgrass specialists from Cornell University and researchers from Massachusetts, Rutgers, Penn State, Michigan State and Ohio State universities. Industry specialists are also presenting their expertise and experience to the attendees.

More than 300 trade show booths will display the latest in supplies and equipment for the attendees. Lunch on Wednesday and Thursday is served at the trade show. This allows everyone time to visit with the exhibitors. The cost for lunch is included in the registration fee. The trade show speakers' gazebo will provide an opportunity to exchange ideas and information with the presenters. Take advantage of this unique approach to talk with the experts.

Pesticide recertification credits from Vermont and New York State are available. Continuing education units from the GCSAA, the New York State Recreation and Park Society and the professional Grounds Management Society are awarded.

BREARLEY NOW 'ACE'

BOLTON, Mass. — Edward L. "Chip" Brearley long has been known as a crack organizer and efficient executive for the Golf Course Superintendents Association of New England.

The course super at Onset's Bay Pointe Country Club added a new tag Oct. 13 at International Golf Club during his group's fourth annual turfgrass research tournament — "Ace."

The tourney's chairman and GCSNE vice president fired a hole in one on the 162-yard 6th hole. His No. 6 iron shot disappeared over a ridge.

A foursome departing the green said the ball took two bounces and lodged nicely into the cup. Playing partners were Bob Keene, International assistant pro, and brothers Steve Murphy, Gannon CC, Lynn, and Jack Murphy, Hillview CC, Lynnfield. Brearley was 94 on his own ball and with partner Keene 81 in the two-man best ball event.

Brearley's moment in the golf sun may have been costly. He was presented a bar bill of \$5,000.

The tournament netted \$20,000 for research.

THE GOLF CLASSICS

Keep your tees, fairways and greens in classic condition with the full NOR-AM® line of products.

NITROFORM® Slow-Release Nitrogen. Consistently releases nitrogen through bacterial action.

NUTRALENE® Controlled-Release Nitrogen. For sustained release and quick green up through hydrolysis and microbial action.

TURCAM® W.P. Insecticide. Controls white grub and a wide range of turf pests.

TURCAM® 2½G Insecticide. All the benefits of TURCAM W.P. in a granular formulation.

BANOL® Fungicide. Controls *Pythium* and *Phytophthora* in turf and ornamentals.

PROGRASS® Herbicide. Controls *Poa annua* and broadleaf weeds in perennial ryegrass, Kentucky bluegrass, and creeping bentgrass turf.

PROXOL® 80SP Insecticide. Rids fine turf of white grub, sod webworm, cutworm and army worm.



NOR-AM

NOR-AM CHEMICAL COMPANY A Schering Berlin Company
SPECIALTY PRODUCTS DIVISION 3509 Silverside Road P.O. Box 7495 Wilmington, DE 19803

CIRCLE #110

Always read and follow label directions.

South Central



ARKANSAS SHOW JAN. 11-12

The Arkansas Turfgrass Association will host its annual Conference and Trade Show on Monday and Tuesday, Jan. 11 and 12, 1993. It will be held at the Arkansas Statehouse Convention Center and the Excelsior Hotel.

For more information please contact Angie McSwain 501-663-8810, or Arkansas Turfgrass Association, Penthouse Suite, 1123 S. University, Little Rock, Ark. 72204.

North Central



MISSOURI LAUNCHES PROGRAM

JEFFERSON CITY, Mo. — "Preventing Pollution at Agrichemical Dealerships" is the name and the goal of a new program being conducted by the Missouri Department of Natural Resources in cooperation with the Tennessee Valley Authority.

The project, funded by a U.S. Environmental Protection Agency grant, will focus on preventing environmental contamination through changes in design and operation of fertilizer and pesticide handling sites.

For more information on Preventing Pollution at Agrichemical Dealerships, contact Becky Shannon Pollution Prevention Coordinator, Missouri Department of Natural Resources, Hazardous Waste Program, P.O. Box 176, Jefferson City, Mo. 65102, or call 314-751-3176.

MICHIGAN TEACHING BASICS

The Michigan State University Turfgrass Science program will offer an intensive, in-depth, one-week seminar on the basics of turfgrass management Dec. 7-11, at the Kellogg Biological Research Station near Kalamazoo.

Classes are offered in turfgrass plant physiology, identification and establishment; disease, weed and insect identification and control; soils, fertility and irrigation, and pesticide safety and IPM principles. Technical information will be presented in both lecture and laboratory settings.

The MSU turfgrass faculty, including Drs. Joe Vargas, Paul Rieke, Trey Rogers, Dave Smitley, and Bruce Branham, will instruct participants in the aspects of the

turfgrass industry, including golf course management, lawn care, athletic fields and sod production. This school was first offered in 1991 and was successfully completed by nearly 70 turfgrass professionals.

The 1992 School of Turfgrass management is open to turfgrass professionals of all skill levels. However, it is of particular use to those entering the turfgrass industry, or professionals wanting to enhance their expertise.

For more information and registration details, call the Turfgrass School Coordinator, Tim Doppel at 313-939-3636.

MID-AM MEETINGS

CHICAGO — Many horticultural associations have chosen to schedule meetings, seminars, exams, and ceremonies in conjunction with the 1993 Mid-America Horticultural Trade Show. The show is being held Jan. 14-16, at the Hyatt Regency Chicago.

The Illinois Landscape Contractors Association (ILCA) has scheduled its annual Awards Luncheon for Friday, Jan. 15. The program honors innovative design and excellence in the landscape industry.

The Illinois Nurserymen's Association (INA) is holding its second annual Garden Center New Idea

Exchange on Friday. Information will be presented on effective retailing of horticultural products.

The Wisconsin Landscape Federation (WLF) will be holding its Awards Luncheon on Thursday, Jan. 14. Achievements in landscape design and management will be honored.

OHIO TOPICS ARE BROAD

CINCINNATI—The 26th annual Ohio Turfgrass Conference and Show at the convention center here Dec. 7-10 will attract professional lawn care, golf course, grounds maintenance, athletic field and public turf managers from around the

nation.

Features include seminars, workshops, turf industry show, silent auction and Buckeye beer garden.

Topics will range from control of turfgrass pests, composting, sports turf and fertilizers to federal and state issues.

Please inform us

Golf course superintendents are asked to send chapter and regional news to: *Golf Course News*, P.O. Box 997, Yarmouth, ME 04096.

HARD WORK RUNS IN THE FAMILY.



Carryall I



Carryall II



Carryall II Plus

All of our Carryall Turf Utility Vehicles work hard around the clock, rain or shine, day in and day out. They can't help it; they're made that way.

All Carryall gasoline models are equipped with our standard 9.0 rated hp overhead valve 4-cycle engine, so you'll have plenty of power to cover lots of ground quickly and efficiently. Our gravity-tilt or optional hydraulic pickup beds are the largest in their respective classes, providing total vehicle capacities of 800 to 1200 pounds.

All of which means that Carryall is the model of efficiency for everything from daily chores to demanding, heavy-duty jobs. In fact, Carryall has been rated first in reliability, service, and performance among its major competitors.* From our rustproof, all-aluminum frames to our wide range of versatile options, Carryall Utility Vehicles are made to help you conquer more turf every day.

Call 1-800-643-1010, ext. 542, today to ask for your free copy of our new Carryall Catalog and set up a Carryall demonstration. We'll show you that hard work is a family tradition at Club Car.

*As reported by the Center for Golf Course Management, a subsidiary of the Golf Course Superintendents Association of America.



Carryall's Powerful 4-Cycle Gasoline Power Train.

CARRYALL

DRIVE IT TO WORK.

GOLF ASIA '93

THE 3RD INT'L GOLF EXHIBITION & CONFERENCE
25 - 28 MARCH 1993 World Trade Centre SINGAPORE

ASIA'S PREMIER GOLF EVENT RETURNS.

Golf Asia Facts & Figures:

12 times bigger than Kuala Lumpur Golf Show
10 times bigger than Jakarta Golf Show
10 times bigger than Taipei Golf Show
4 times bigger than Gold Coast Pro Golf Show
4 times bigger than Korea Golf Show
2 times bigger than Tokyo Golf Show

120,000 sq ft of floor area
250 exhibitors from 22 countries
35,000 visitors from 25 countries
(USA, UK, Singapore, Brunei, Indonesia, Malaysia, Philippines, Thailand, Australia, New Zealand, China, Hong Kong, Japan, Korea, Taiwan, India, Pakistan, Canada, France, Germany, Holland, Italy, South Africa, Spain, and South America)

In 1992, Golf Asia attracted 223 exhibitors and a staggering total sales of S\$61million in just 4 days. Golf Asia '93 promises to be yet another hole-in-one for your business.

Golf Asia '92 created a whole new ball game of opportunities for participants with its overwhelming success. 223 exhibitors and agents from 20 countries. 21,300 visitors from 22 countries. An overall exhibition space of 100,000 sq ft. A total sales of S\$61 million in just 4 days. And a projection of S\$130 million worth of sales for the following 12 months.

Golf Asia '93 promises to be bigger. And cover a lot more golfing business ground.

In addition, the 3rd *Asia Pacific Golf Conference* will be held in conjunction with the exhibition at the Pan Pacific Hotel, Singapore, from 23 to 25 March '93. It will be the region's most important golf forum. An opportunity for you to learn what's new in the golfing fraternity and meet up with specialists and decision makers in the business.

So don't miss the easy putt towards business par excellence. Send your coupon to us today.



U.S. DEPARTMENT OF COMMERCE,
WASHINGTON D.C.

OFFICIAL PUBLICATION
**GOLF COURSE
NEWS**
THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY
USA

OFFICIAL SUPPORTING PUBLICATION
GOLF ENTERPRISE
EUROPE

THE OFFICIAL AIRLINE
SINGAPORE AIRLINES

OFFICIAL SUPPORTING PUBLICATION
Japan Golf Report

OFFICIAL COURIER SERVICE
ups
United Parcel Service

CIRCLE #112

Fax or mail the reply coupon and your business card to CONNEX PTE LTD today:

Please send me details on
Golf Asia '93 Exhibition

Please send me details on the
3rd Asia Pacific Golf Conference

Name: _____

Company: _____

Position: _____ Address: _____

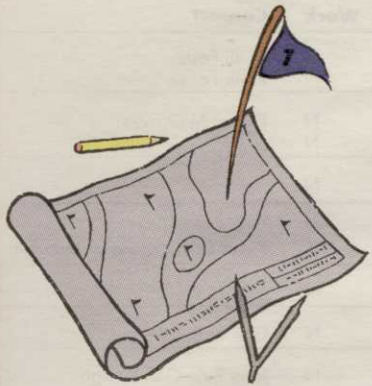
Tel: _____ Fax: _____

Organised By:



CONNEX PTE. LTD.
(International Exhibition Division)
7500A Beach Road #07-308/9
The Plaza, Singapore 0719
Tel: (65) 2966961 Fax: (65) 2935628
Tlx: RS 36463 CONNEX

BRIEFS



BEIDEL FORMS OWN FIRM

MT. PLEASANT, S.C. — Edward Beidel, Jr., who worked for Hassenplug Associates for 16 years, eight as chief designer and project manager, has opened his own golf course/landscape architect practice here. Beidel graduated from Penn State in landscape architecture in 1976 and started working in September for X.G. Hassenplug in Pittsburgh. He helped design seven or eight golf courses with Hassenplug, performed routing plans for 30 to 35 courses, and did land-planning work. Beidel is working on his first solo project, a golf facility in northern Philadelphia.

BATES HIRES WOLFARD, RUELLE

PALM BEACH GARDENS, Fla. — Gene Bates Golf Design has hired Steven Wolfard and Jim Ruelle, both were formerly with Golden Bear International in North Palm Beach. Wolfard will be based in Dallas and primarily be responsible for golf course design and construction for the Western states, Canada and Japan. Ruelle will work out of the Palm Beach Gardens office along with designer Bob Cupp Jr., and will be responsible for the Eastern United States and projects in the Caribbean and Europe. Designer Matt Swanson has relocated as project manager for a golf course project located in Lenexa, Kansas, being designed jointly by Gene Bates and Fred Couples.

OLSON COURSE TO OPEN IN S. KOREA

As Dong Jin Country Club in Ichon, South Korea, nears its grand opening in March 1993, finishing touches are being applied during the final turf growing. The 27-hole double-green championship golf course was designed by Cal Olson of Costa Mesa, Calif. Even though approximately 10 million cubic meters of earth and rock were moved during the grading operation of Dong Jin because of the steep terrain, the final course rests naturally in the dynamic mountainside. The course has many large rock outcroppings and strategically placed water features.

HILLS' CYPRESS HEAD OPENS

PORT ORANGE, Fla. — The Golf Club at Cypress Head, a new Arthur Hills design, has opened for play here. The 18-hole public facility is owned by the city of Port Orange and managed by Golftrust, Inc. The par 72 course measures 6,826 from the championship tees and 5,980 from the front tees. The Golf Club at Cypress Head is a joint venture between Pioneer Heights Novoloporo and the city of Port Orange.

GOLF COURSE NEWS

Effluent users seek balance in cost, laws

By HAL PHILLIPS

Irrigating golf courses with reclaimed water is nothing new. But in Arizona and Florida, course developers and managers are struggling to reconcile the responsible use of effluent with the state-derived pricetag.

"We want to be good citizens," said Jack Mathis, president and acting executive director of the Florida Golf Council. "Eleven percent of Florida golf courses use reclaimed water. But golf courses can't be the entities that absorb the cost."

Golf courses in the Sunshine State need permits from the local water management districts in order to pump ground water. These permits say courses must use effluent if it's "available," and if it's "economical."

Availability is one thing. But according to Mathis, utility companies are selling the treated water for anywhere between \$1 and \$2 per 1,000 gallons. That's \$20,000 dollars a month for water many golf courses can get elsewhere.

"We don't really have a water problem in Florida, other than March, April and part of May," said Mathis. "What's happening is, golf courses are caught in a vice. Utilities have a dire need to get rid of this effluent, and they're seizing the opportunity to stick it to golf courses."

And who determines what is "economical"?

"That language has not been challenged yet," said Mathis. "But it's only a matter of time."

In Arizona, where life would be unimaginable without water and air conditioning, golf course developers are scrambling to get their hands on reclaimed water. Yet, while cities like Phoenix, Mesa and Tucson process plenty of effluent via municipal sewage treatment plants, only Tucson has created the necessary piping infrastructure to fully accommodate golf course irrigation needs.

"We don't have a water quantity problem. We have a water management problem," explained Bill Rodin, president of the Arizona Golf Association. "The state and individual municipalities want effluent use, but there's no incentive economically."

When it comes to irrigating Arizona golf courses with ground water, there is no statewide moratorium. However, individual counties have imposed serious restrictions. Maricopa County, for example, has mandated the exclusive use of effluent for irrigation, as has the city of Tucson.

The problems come at the checkout

Continued on page 24



The view from the 75-foot elevated tee on the 4th hole gives a glimpse of the beauty of Glenmore, an 18-hole course designed by John LaFoy that is the centerpiece of a private country club in Charlottesville, Va. The 4th plays 120 yards from the front and 255 from the championship tees. Owned by Frank Kessler, Glenmore opened Oct. 15.

Siberian resort planned by Fream

Ronald Fream of Santa Rosa, Calif., has completed masterplan drawings for the Dalreo Resort being developed at Khabarovsk, Siberia, Russia. The facilities will include an executive meeting center, business hotel, casino, health spa, and championship golf course. This Russo-American joint venture is the first world-class golf resort in Siberia.

The 18-hole, par-72 course is designed not only for major competitions at 6,400 meters, but with five sets of tees, it plays to 4,800 meters. A golf teaching academy is part of the project. Provision has been made for a second 18-hole course when demand increases.

The Dalreo project will cater to Korean and Japanese businessmen initially. Summer golfing tourists from Japan, Taiwan, and Korea will be the secondary market. Ground-breaking will occur in the spring of 1993.

\$14M Scottsdale project draws from aqueduct

SCOTTSDALE, Ariz. — The City of Scottsdale, in conjunction with several local golf developments, is building a new distribution line for non-potable water from the Central Arizona Project's (CAP) aqueduct.

The \$14 million project will consist of 14 miles of 36-inch pressurized line, 1.5 miles of 20-inch gravity distributed line, five pumping stations, an 8-million gallon reservoir, and a 62,500-gallon steel tank. Construction costs of the public/private venture will be shared by the city and participating golf course developers.

The CAP takes water from the Colorado River and diverts it into a canal, which provides drinking and irrigation water to California and Arizona. A group of area golf courses — all served by the new distribution line — transferred their water rights to the city of Scottsdale in exchange for \$5 million. The remaining \$9 million was picked

Continued from 24

LaFoy-designed Glenmore opens

CHARLOTTESVILLE, Va. — Glenmore Country Club, an 18-hole private golf course five miles east of Charlottesville on Route 250, opened Oct. 15.

Owner Frank Kessler's daughter Candy, who competed on the mini-professional tour, is director of golf, Timothy Thomas course superintendent.

Glenmore's tradition as a great horse farm where cattle and prize-winning thoroughbred horses were raised has been carefully maintained. Named for the soft rolling glens and meadows, the area is rich in Colonial American history.

The two nine-hole loops, designed by course architect John LaFoy of Taylors, play from 5,100 to 7,000 yards.

The par-3 fourth hole drops 100 feet from tee to green and can be stretched to 250 yards, and a 70-foot bunker fronts the 12th green.

'Lost City' hopes visitors will find Gary Player track

BOPHUTHATSWANA, Africa — "The Lost City," a \$1 billion mega-destination resort under development here, soon may be the destination of golf safaris.

An 18-hole par-72 golf course, the first desert style track to be laid out in the south African region, will be the centerpiece of recreational amenities.

Rock and Waterscape Systems Inc., an Irvine, Calif., firm specializing in simulated rock and water features, is playing a major role in creating the opulence and mystique of a royal African kingdom resurrected after being destroyed by an earthquake and abandoned for centuries.

done for centuries.

The Gary Player-designed course, scheduled to open next April, will use the natural bushveld terrain, with rock features and eroded gullies incorporated as hazards.

A crocodile pool highlights the 13th hole. Greens will have six distinct pin placings. Each hole will have between four and five tees.

Most of the terrain of the course at The Palace of the Lost City borders the Pilanesberg National Park. Golfers may see rhinos and bucks as they wait to tee up.

Roquemore's design community centerpiece

The newly opened Country Club of Woodloch Springs golf course is the centerpiece of a new residential community being developed as part of the nationally renowned Woodloch Pines resort located east of Scranton, Pa.

Woodloch Springs was designed by Rocky Roquemore.

The 6,600-yard, par 72 layout presents a different challenge on every hole. At the 14th, golfers must navigate 200-foot deep

Hell's Gate Gorge with their approach to the green.

Other features include 13 bridges over natural wetlands, five miles of cart paths, 65 bunkers and a double green connecting two par threes.

"A major share of the credit for the success of the course should go to the owners who allowed us to spare no reasonable expense in order to take advantage of the natural features of the area," said Roquemore.



Beautiful Courses Attract Beautiful People. Nutralene® Brings Out The Beauty!

For greens, tees and fairways, use Tee Time® fertilizers with slow release nitrogen, *Nutralene* formulated using our unique, micro-granular process. Get effective, uniform performance even on closely mowed turf.

ask us about:

- Tee Time 21-3-16 with 97% *Nutralene* for greens and tees.
- Tee Time 22-4-18 with 92% *Nutralene* for tees and fairways.

You'll find these and many more quality Tee Time golf course products at your nearest Andersons distributor.

For more information, call toll free:
1-800-225-ANDY (2639)

the professional's partner®



® *Nutralene* is a trademark of Nor-Am Chemical Co. © 1992, TeeTime is a trademark of The Andersons

Golf courses newly OK'd in the U.S.

Location	Course Name	Type	Class	Work	Contact
Arizona					
Mesa	Mesa Country Club	P	R	R	Keith Foster
Phoenix	Pebble Creek	D	R	N	Keith Foster
California					
Lafayette	American Canyon Country Club	D	R	N	Robert M Graves
Woodland	Westridge	N/A	R	N	
Georgia					
Glynn County	Oak Grove Plantation GC	D	R	N	
Illinois					
Springfield	To Be Announced	M	R	N	
Whittington	Rend Lake GC	D	R	A	Kevin Davis, General Manager
Indiana					
Piercetown	To Be Announced	N/A	R	N	
Kansas					
Shawnee Mission	Woodland Hills	D	R	N	Golf Resources Inc.
Maryland					
Gaithersburg	Four Streams Golf Club	P	R	N	Jerry Pate Golf Design
Massachusetts					
Hanson	Arboretum Golf Course	D	R	N	Phil Burne
Missouri					
Monett	To Be Announced	P	R	N	
Nebraska					
Kearney	Kearney Municipal GC	M	R	N	Municipal Golf Inc.
New York					
Westfield	Sugar Hill GC	N/A	R	R	
Ohio					
Bellefontaine	Tree Links	D	R	N	
Oregon					
Sherwood	Shore Pines GC	N/A	R	N	
Pennsylvania					
Ohio Twp.	Diamond Run	N/A	R	N	Gary Player
South Carolina					
Myrtle Beach	Wild Wing Plantation (Falcon Course)	D	R	N	Rees Jones
South Dakota					
Sioux Falls	To Be Announced	M	R	N	Lowen Schuett, Park Director
Texas					
Port Acres	To Be Announced				Von Hagge Design Associates
San Antonio	Camino Real	N/A	R	N	
Utah					
North Salt Lake	Eaglewood Golf Course	M	R	N	Collin Wood, City Manager
North Salt Lake	To Be Announced	N/A	R	N	
Washington					
Richland	Horn Rapids G. C.	M	R	N	William H Neff
Seattle	Remington	D	R	N	Keith Foster

Courses newly planned across the U.S.

City	Type	Work	Contact
Arizona			
Tucson	D	N	
California			
Escondido	D	N	
Hawthorne	N/A	N	
Martinez	N/A	N	
Newhall	N/A	N	
Nipomo	D	N	
Colorado			
Colorado Springs	N/A	N	
Grand Junction	D	N	
Florida			
Bartow	N/A	N	
Lakeland	N/A	N	
Naples	P	N	Von Hagge Design Assoc.
Orlando	P	N	
Punta Gorda	D	N	
Tampa Bay	N/A	N	
Idaho			
Post Falls	N/A	N	
Illinois			
Le Roy	P	N	William J Spear
Mc Henry	M	N	
Moline	N/A	N	
South Holland	M	N	Sandra Wartman, Rec.Dir.
Tuscola	M	N	
Wilmington	D	N	
Indiana			
Ellettsville	D	N	
Marion	D	N	Ron Kern
Shipshewana	N/A	N	
Iowa			
Mason City	P	N	William J Spear
Kansas			
Lawrence	M	N	Mike Wildgen, City Man.
Kentucky			
Brownsville	D	N	
Cave City	N/A	N	
Michigan			
Whitefish County	N/A	N	

City	Type	Work	Contact
Minnesota			
Becker	M	N	
Montana			
Kalispell	D	N	Bruce Williams, City Man.
New Jersey			
East Amwell	D	N	
Sparta	N/A	N	
New York			
Manhasset	P	R	William T. Schmitt
516/862-7676			
Poughkeepsie	M	A	
Saratoga Springs	N/A	N	
Tuckahoe	M	R	William T. Schmitt 516/862-7676
North Carolina			
Clayton	N/A	N	
Ohio			
Barberton	D	N	
Oregon			
Warrenton	N/A	N	
Pennsylvania			
Ashcombe Borough	M	N	THK Assoc.
Burrell Twp.	N/A	N	
Flemington	M	N	
Hempfield	N/A	N	
Rhode Island			
Hopkinton	D	N	
Tennessee			
Collierville	M	N	Steve Schertel, Park Dir.
Texas			
Corpus Christi	M	N	Malcolm Matthews, Park Director
Lampasas	M	A	Jack Calvert, Mayor
Washington			
Issaquah	P	N	
Moses Lake	D	N	
Quincy	N/A	N	
Wenatchee	N/A	A	
Wisconsin			
Oak Creek	N/A	N	

Golf Course News is publishing these lists monthly from our sources and with the assistance of Forecast Golf Marketing & Financial Systems Inc. of Richmond, Va. They include courses that have been planned or

approved around the country in the past month. We would appreciate your help in updating this section by contacting *Golf Course News*, P.O. Box 997, Yarmouth, ME 04096.

Under "Type" — D=Daily fee, P=Private, M=Municipal.
Under "Class" — R=Regulation, E=Executive, P=Par 3.
Under "Work" — N=New, R=Renovation

\$10B Malaysian park to include eight golf courses

Continued from page 1
site near Singapore.

An Italian developer has brought together the Italian and Malaysian governments and private money to build the facility.

It is expected to eventually in-

clude 24 hotels with 1,000 rooms each.

Developers, who have been working on the project for the past 18 months, expect the park to draw 150,000 people a day.

The site is 200 meters high.

Much of the park will be built halfway up the hill — about 150 feet above the ocean — and builders will move about 50 million yards of dirt.

Much of that dirt will be used to form the golf courses.

The shape of things to come: The men behind architects' creations

By MARK LESLIE

Part artist, part blueprint follower cum mind-reader, part heavy-equipment operator yet with a soft touch. Golf course shapers are all these things — and more.

"They put the heart and soul into a golf course," Jan Beljan of Fazio Golf Course Designers will tell you.

"They're the prima donnas of our industry. They're crucial to us," said Bill Kubly, president of golf course builder Landscapes Unlimited, Inc.

"You can't overdramatize how important the shaper is," said architect John LaFoy.

"Shapers literally are architects," said Dana Fry of Hurdzan Design Group in Columbus, Ohio. "They often are designing as they go on a bulldozer."

To golfers, the big names are the Nicklauses, Fazios, Joneses, Palmers, Hills, Morrishes and Cupps of the design industry.

To those designers, the big names are the Truman Williamses, Sonny McNeils, Don Thomases, Lewis Stones and Lou Cappellis of the shaping world.

These are the men who fine-tune their creations — who turn two-dimensional drawings and verbal directions into three-dimensional earth forms.

When the Vintage Club decided to do a renovation, the owner asked architect Tom Fazio to make sure he sent shaper Cappelli, who was instrumental in building the original design.

In Puerto Rico they call Cappelli "Louis the Magnifico," Fazio said.

"It shows they like your work and attitude. Workmanship means a lot," said Cappelli, the late George Fazio's personal shaper, who has perhaps worked on more golf courses than any man alive.

"If you do everything else right and you don't have shapers capable of doing what you want, the finished product can be entirely ruined," said LaFoy, of Greenville, S.C. "The final six inches is what the golfer sees."

"With several architects, we get projects because we have certain shapers," Kubly said. "The architects try to instill in the owners the importance of the shapers. A lot of times the owners will say they can get a local earth-mover. 'Why hire shapers?' they ask. It makes a world of difference."

"They can recognize and help you overcome problems, like surface drainage, that you haven't noticed," said architect Ted McAnlis of North Palm Beach, Fla.

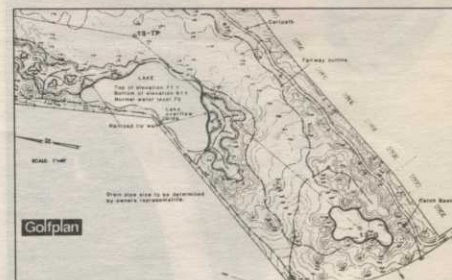


Ponko of Ponko Construction Corp. in Virginia Beach, Va., who worked 10 years for Robert Trent Jones Sr. before forming his own company in 1985, said: "You can only put so much on paper. Someone has to interpret the architect's plans and implement them. You can set everything up with grade stakes with a certain amount of artistic freedom that makes it all work... A topo map can change quite a bit after removing the trees, stumps and topsoil. You're often two feet lower."

Ponko said shapers perform some common sense tasks that make a course work — "such as elongating slopes to fit in with areas you're not disturbing, or taking care of surface drainage that was not indicated on the plans but common sense tells you to surface-drain, or drain to a point."

"You have to have a natural knack," said Marvin Schlauch, who has worked with a number of architects

Continued on page 22



Above is an example of a working drawing showing contour sculpturing for an individual hole — provided by Golfplan.

Johnny Christiansen, a shaper for golf course builder Landscapes Unlimited, won the prestigious Building Congress Award for Craftsman of the Year in the Baltimore metropolitan area, for his work on the course at left — Caves Valley. The Craftsman of the Year Award is usually presented to masons who work with their hands. Christiansen receives the award in November. Bill Kubly of Landscapes Unlimited said 12 people from the Building Congress inspected the site of Tom Fazio-designed Caves Valley, the first golf course built in environmentally stringent Baltimore County, Maryland, in 25 years. The project management company explained to them what Christiansen did with the bulldozer to shape the course.

Photo by Hal Phillips

California wins 'honors' as Toughest State for Permitting

By MARK LESLIE

California is the runaway sweeps takes winner, staking claim to the title of Toughest State in Which To Gain Golf Course Permits.

According to a Golf Course News poll of leading course architects and builders, California is in another zone altogether from other states. The Golden State got far more votes than second-place Florida, third-place New Jersey and fourth-place Maryland.

Of the 40 people responding to the questionnaire, 15 tapped California as the toughest, while New Jersey received six first-place votes, Florida five, and Maryland four.

Little consensus was found for easiest permitting state, however, with Texas receiving the most votes among 32 nominees. Nebraska and Louisiana tied for second place.

"It's not 'easy' anymore," wrote architect Clyde Johnston of Hilton Head Island, S.C.

The survey asked for the three toughest and three easiest states. First-, second- and third-place votes garnered three, two and one points, respectively. Among the toughest states, California totaled 62 to Florida's 33, New Jersey's 27 and Maryland's 17.

Voting was so sparse for the easiest states,



that leading Texas had four first places and 17 points. Nebraska had three first and Louisiana one in tying with 12 points apiece.

An intriguing result of the voting — showing that individual experiences can vary widely — is that eight states were named on both lists: Arizona, Connecticut, Georgia,

Michigan, Mississippi, Pennsylvania, Tennessee and Texas (Austin, specifically).

Also interesting was that the two states with the most golf courses — California and Florida — were the two most difficult in which to obtain permits. And Hawaii received only one first-place and four second-place votes — perhaps because so few architects and builders do work there.

THE FALLOUT

"California. California. California," responded architect Maury Miller of Golf Resources Inc. in Dallas. "No one else comes close."

"Honolulu is tougher. Over there we're not even allowed to ask," joked builder/architect Perry Dye. He added that already difficult California regulations became even tougher when the Coastal Commission increased its power to 10 miles inland because of salt marshes.

Architect Bob Cupp of Atlanta, Ga., and Jay Morrish of Tulsa, Okla., had particularly harsh words for California.

"The inmates are running the asylum," Morrish said. "The Sierra Club has a strong toehold there. I'm not saying they're bad but they're swaying people's opinions. The

Coastal Commission is really difficult to work with. And there is a general group of environmental whackballs who are against everything. They're always malcontent."

"The higher the population the more complex the approval process and the more crazies you have," Cupp said. "You have people who are ultimately determined to be activists ... not to necessarily stand for anything; just to be activists."

Robert Trent Jones Jr., whose worldwide practice is headquartered in Palo Alto, Calif., said "obstacles (in his home state) are far more difficult than any other place in the country."

Speaking of San Mateo County's 17-year effort to build a public course, Jones said: "It's brutal to get anything built there. It's 60-percent open space, but that doesn't matter to the environmental movement or anti-growth people. Getting a permit is like climbing Mt. Everest with tennis shoes."

Dye said: "In California the gnat catcher and San Francisco garter snake are having almost as many rights as people."

"The spotted owl put 500,000 people out of work and we wonder why it's hard to get a golf course built?"

Continued on page 24

Course shapers: Adding substance to form

Continued from page 21

over 25 years. "It's like an artist who draws a picture of a mountain. He's an artist. That's in him. You don't learn that.

"You have to have good eye for it and a feel for building a green. You have a design from an architect and you have to be able to read his mind and know what he's looking for. If you can put those together you can be a shaper."

Yet, Schlauch said, it takes years to be good. He points to his 23-year-old sidekick Casey Fraser as "a natural" who can read blueprints, knows grades and golf, and is beyond his years in expertise.



Shaper Marvin Schlauch, right, with architect Stephen Kay.

SET APART BY TALENT

What's the difference between the bulldozer operator the owner might like to hire and the professional shaper?

"Nothing is perfect. Everything is free-flow. It looks like God created it. That's the difference between a bulldozer operator and shaper," said Greg Will, of Classic Land Shapers, a division of Sporting Valley Turf in Lancaster, Pa. "The dozer operator tends to get things more level, round and symmetrical. It's probably easier to never have worked on a dozer before and shape than to change from dozer work to shaping."

Pitches. Dips. Rolls. Bunkers cut into

the faces of greens.

Shapers have to form a mental picture of all these land forms "and know ahead of time what you're going to do," Ponko said.

Cappelli, who started shaping for George Fazio at the age of 29 in 1959, is particularly fond of bunkers.

"I think traps make the golf course," he said, "their ins and outs, ups and downs, different shapes."

Cappelli feels fortunate he could free-style for so many years when George was alive.

"When I started playing, I got fascinated in the game and I got new ideas from building golf courses," he said. "I saw a lot of greens were small for long holes. The tees were too small and didn't have many angles to shoot from. The bunkers were too round, with no character. There was no variety of lies on the fairways. Things like that. Plus George taught me a lot. I started doing things on my own and he thought they were great. Routing of the holes was mostly on paper. But sight and feel was done the most."

Other shapers who can't freelance so much, have earned their reputations by learning architects' tastes and tendencies.

"With Trent Jones, we could have phone discussions and I knew exactly what they wanted," said Ponko. "I knew both Roger [lead designer Rulewich] and Trent real well, so when they talked about wrapping a green into a mound, I had a mental picture of it right away."

"Richard and I have developed a rapport about how things should look," said McAnlis of Richard Laconte of Golf Tractor Inc. in Stuart, Fla. "It's very important to have a shaper who knows you, your style. And the more skillful the shaper, the fewer problems you have on the course."

"A shaper is a sculptor of the earth," said Beljan. "You have to see them in action on those D6s and D8s. They start with something big and whittle away at it. It's sheer artistry. No moves are wasted. Shapers don't get the credit they deserve."

For many of the shapers, their reward is the work itself.

"It's a great way to make a living," Ponko said. "I truly love building greens. It's rewarding when you finish and you can stand back and look at it. I also like to travel. So it fits my lifestyle."

"I never tire of going to work in the morning," Will said. "Everything is different every day. If you take a year to do a course, it's long. You're always working someplace else. The area is different. The architect is different. Every hole is different. Every green is different."

Crucial inches

The top six inches of soil is the most crucial part of construction. That is where you want your most highly skilled equipment operators working, builders say.

Ground on a course is moved in three ways and by three types of equipment: heavy earth-moving by D6s, John Deere 850s and similar bulldozers; fine shaping by D3s, John Deere 550s and similar dozers; and finish shaping by a rubber-tire tractor pulling an instrument like a gill pulverizer or a harrow or another type of finishing implement.

Shaper Marvin Schlauch said greens are much easier to shape today than in times past. "Years ago they didn't have the kind of equipment we have. They had straight-blade dozers," Schlauch said. "Now we have the best equipment, the easiest to run. We have six-way blades that angle and tilt."



PALMER

COURSE DESIGN COMPANY

Arnold Palmer - Ed Seay

Palmer Course Design Co.
572 Ponte Vedra Boulevard
Ponte Vedra Beach, Florida
USA 32082
Telephone: 904-285-3960
Telefax: 904-285-2119



Ed Seay-Arnold Palmer-Bob Holzman

Designers of:

Furano Golf Club
Furano, Hokkaido, Japan

Damai Beach Resort
Kuching, Sarawak, Malaysia



Furano Golf Club



Damai Beach Resort

"There's nothing in golf more challenging than a well-designed golf course."
-Arnold Palmer

Toughest states

Continued from page 21

American Society of Golf Course Architects President Arthur Hills of Toledo, Ohio, gave Florida his vote, noting that his concern there is not the difficulty but the "considerable time" it takes to obtain permitting.

Hills said California's coast is important and should be protected, but is very time-consuming. He pointed to one project he is involved in on the Pacific Ocean that has been languishing in the approvals process for 3-1/2 years.

Miller attributed California's attitude to pro-active environmentalists in that state since the 1960s, combined with bad experiences with poorly built homes, and "some things done to the landscape that were unruly."

He added that construction practices at some courses built in Florida decades ago brought about environmental regulations felt today.

Steve Smyers, an architect in Tampa, Fla., said New Jersey is the toughest state and defended Florida.

"Florida's attitude is pro-development," he said. "This is a young and growing state. It has rules and regulations. Abide by them and you'll get the permits. You have to have your act together, so to speak."

Smyers said in Florida all the people reviewing applications are professionals.

That is the opposite of New Jersey. Therein lies the difficulty there and in other Northeastern states, he said. "Town selectmen are reviewing projects, and they are not educated or well-versed in the areas they need to be."

Bureaucrats nationwide were singled out as a problem.

For instance, Baltimore County, Maryland's development regulations were "written by a totally no-growth administration—by bureaucrats whose mission in life is to stop development at any cost," said David Locke, a landscape architect and land planner who is vice president of Daft McCune Walker, Inc.

Hills is optimistic things may change. He said he's not sure the permitting process is getting tougher or longer around the nation.

"Maybe the pendulum has swung as far as it is going to and now we should organize [permitting] in a rational way so there is a procedure to follow to a reasonable conclusion. I think there is always a concern about the environment on the part of all parties, and golf courses are as well-suited to complement those concerns as any form of development," he said.

It's time to return to old design/build technique

By LISA MAKI

Before the 20th century, few men practiced golf course architecture. St. Andrews, Prestwick, and Carnoustie are relics of the natural links. Mother Nature was their creator, with little assistance from a designer or a builder.

Astounding growth in the game, diminishing ideal terrain, and major technological advances led to the first generation of "golf course architects," practitioners trained in disciplines associated with golf course design, beyond just playing the game. It was a time when brilliant men "designed and built" renowned tributes to golf on both seaside and parkland sites. Golf flourished.

Then came a time when opportunistic developers and lenders appeared. They preyed upon the game's dramatic settings to attract resort guests and real-estate buyers. Funds were liberally dispersed, and monuments were built.

Architects began to realize they were compromising their futures by designing these monuments with vast waste bunkers, radical hazards, geometric features, forced carries and treacherous greens.

Many architects returned to their roots, to design more traditional courses. This resurgence has caused many golf course architects to diminish the distance between office and site, to interact directly with the land as the pioneers of their profession did, to practice Design-Build.

Lisa Maki is president of Golf Design Services of Round Hill, Va. She was a golf course designer/project manager with Links Design, Inc. of Lakeland, Fla., from 1984-1989.



Bilberry Inc. and Golf Design Services International Inc. built Stoneleigh Golf Club in Round Hill, Va., using the design/build technique

Robert Trent Jones, dean of modern architecture, practices as his forefathers did. He believes it is necessary to control not only the design, but also the building of a project. Thus, the family owns and operates "Design-Build" companies. Robert Sr. once made the following statement in reference to his Design-Build company, "You have to do that [design and build] or you don't come up with what you are after."

His son Rees concurred, stating that "the hardest part [in designing a golf course] is transferring the idea from the architect to the builder and having it come to the satisfaction of everyone."

Pete Dye is another practitioner of the "Design-Build" approach. He refers to himself as a job foreman, overseeing both design and construction. He is a creator of golf courses, cut straight from the hip-boots-in-the-much mold, often routing and rerouting courses in the field. Dye believes he "develops the best possible course, faster, for less money using the Design-Build

approach."

As Rees Jones and Dye affirmed, no matter how talented a golf course architect is, it is impossible to create a flawless three-dimensional design when working in a two-dimensional medium of pen and paper, or even digitizer and monitor. Inevitably, alterations to the design must be made on site in response to actual conditions. A Design-Build company can implement these changes quickly and economically, virtually eliminating the dreaded Change Order, as this approach allows for flexibility within a fixed budget.

What other benefits are there for the Design-Build client?

- There is single contract for a fixed price.
- Solid budgets enable job costs to be determined from start to finish.
- There is efficiency in dealing with one firm (no overlap of budgets or schedules and changes can be implemented faster).
- Clients' needs are transmitted to one person responsible for the

Commentary

project.

- Communications are good, therefore the need for final drawings is reduced.
- Information is shared about project intentions, needs, materials and labor costs.
- The efficiencies gained in the process allow the client to become a major player in the design process, and to have more control over the entire process.

- The designer and the builder have cross-purpose goals (not just designer-beautiful and contractor-profitable). The credibility of each side enhances the other. Their entire reputation is invested in the job from creation through construction.

The Design-Build legacy has been preserved by a number of the esteemed architects. They are not typical golf course designers, in the fixed role of professionals who produce designs and supervise their execution. Instead, they own and operate businesses that provide both design and construction services. They are not considered unprofessional, or undesirable, or suspected of adjusting their rates of service and costs of materials.

Unfortunately, Design-Build is not the norm in the profession. Designers practicing it are often looked upon as black sheep. Why shouldn't the more budget-conscious developer have access to the same scope of services as the affluent developer? Today's tight markets necessitate cost-effective alternatives. Perhaps, developers should consider a historic approach to designing and building courses, as a novel solution to providing an on-time, on-budget, quality product.

THINK OF IT AS THE GOLF COURSE PROBLEM SOLVER

C-LOC® Plastic Sheet Piling

Low spots...Drainage ditches...Soil erosion...Every golf course poses its own set of landscaping problems. Which is why so many developers, contractors and club managers are now relying on C-LOC plastic panels to solve these problems.

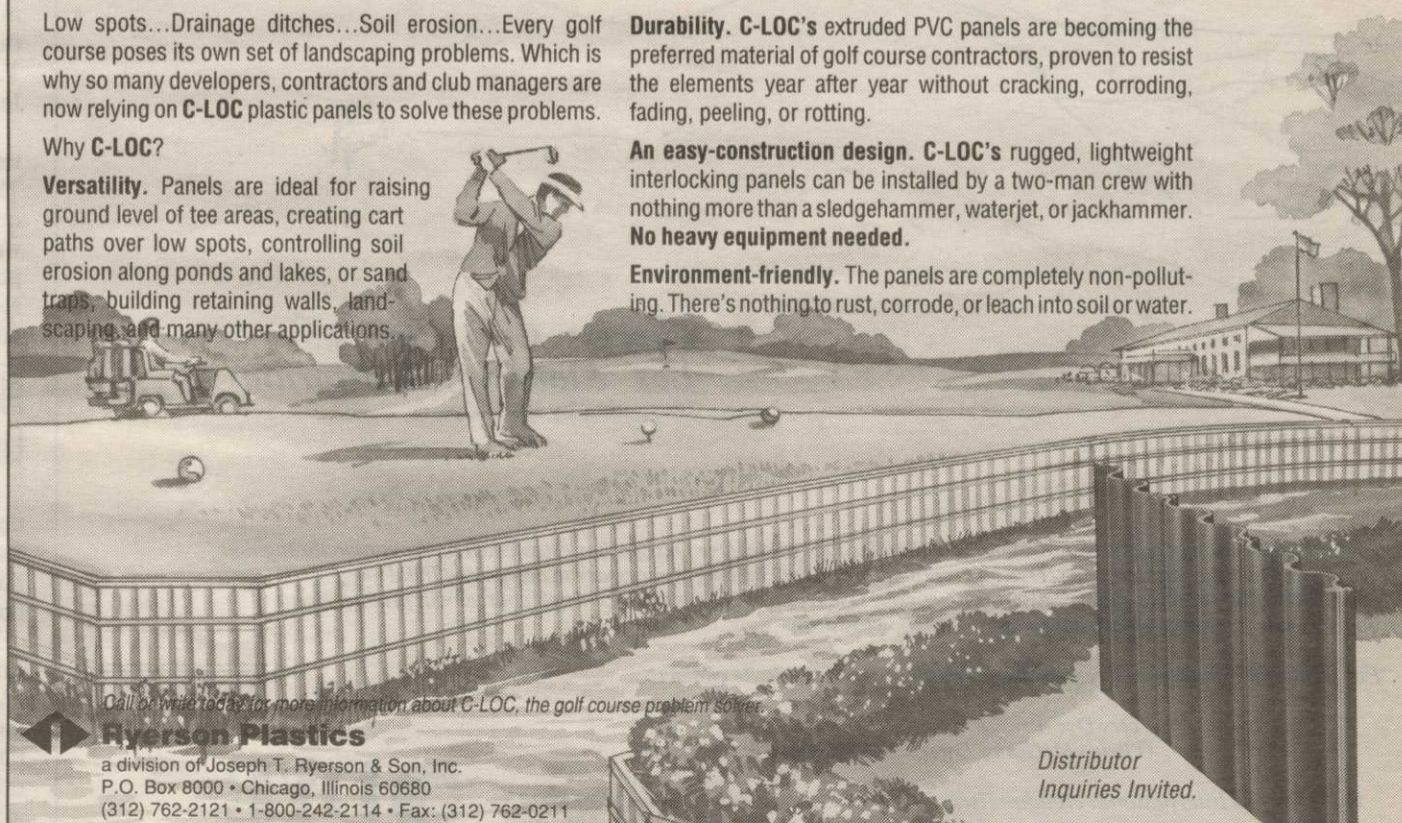
Why C-LOC?

Versatility. Panels are ideal for raising ground level of tee areas, creating cart paths over low spots, controlling soil erosion along ponds and lakes, or sand traps, building retaining walls, landscaping, and many other applications.

Durability. C-LOC's extruded PVC panels are becoming the preferred material of golf course contractors, proven to resist the elements year after year without cracking, corroding, fading, peeling, or rotting.

An easy-construction design. C-LOC's rugged, lightweight interlocking panels can be installed by a two-man crew with nothing more than a sledgehammer, waterjet, or jackhammer. **No heavy equipment needed.**

Environment-friendly. The panels are completely non-polluting. There's nothing to rust, corrode, or leach into soil or water.



Call or write today for more information about C-LOC, the golf course problem solver.

Ryerson Plastics

a division of Joseph T. Ryerson & Son, Inc.
P.O. Box 8000 • Chicago, Illinois 60680
(312) 762-2121 • 1-800-242-2114 • Fax: (312) 762-0211

Distributor
Inquiries Invited.

Developers seek to maximize effluent use

Architects, builders list available

Because of space limitations, this issue does not contain a complete listing of golf course builders and architects that we have published annually in this special section. To obtain one of those lists, please write to: Managing Editor, *Golf Course News*, P.O. Box 997, Yarmouth, ME 04096.

Continued from page 19

counter: Most effluent is sold to golf courses at a rate of approximately \$400 per acre foot (one acre foot amounting to 318,000 gallons). Golf facilities are allowed from 4.0 to 4.9 acre feet, per acre, per year — which is enough to ward off the searing desert sun. Unfortunately, reclaimed water is very expensive and it simply isn't available in outlying areas, where golf courses might be built.

The most painful irony is this: Most major cities are dumping the treated effluent for nothing. Even Tucson returns nearly 40 percent of its effluent to

the water table.

Rodin believes this roundabout water policy is hurting the development of reasonably priced golf courses in Arizona. Ritz resorts and private clubs can foot the bill, while daily-fee ventures never get off the ground — the foreseeable margin is too tight.

"I don't know where it's going to end," he said. "There's no question that golf is key to tourism here. If we can't get more reasonably priced golf courses here, we're in trouble."

The permitting process in Arizona isn't much help. In order to obtain an

aquifer protection permit, golf course owners have to prove reclaimed irrigation water won't percolate into the ground water. Considering the state's sandy soil, this is no small task.

Further, golf course owners must use only enough water to allow for plant growth, plus evaporation. This essentially means no percolation. "You show me a guy who can grow healthy turf without percolation and I'll show you God Himself," maintained Rodin.

As state agencies in Arizona and Florida continue to set regulations — and precedent — on the use of reclaimed water, Mathis and Rodin agree the golf course industry must mobilize.

"It would be safe to say it is a very dynamic situation," said Mathis. "Unless we take a pro-active approach and meet these things head on, we'll get blindsided."

Scottsdale program benefits city, courses

Continued from page 19

up by the golf facilities, which include Troon, The Boulders, Desert Highlands, Desert Mountain and the TPC of Scottsdale.

State Farm Insurance Co. and D.C. Livestock Co. have joined the project by contributing \$694,000 apiece. Both firms have golf courses in the planning stages.

"This program provides real advantages for the golf courses and the city," explained Marty Craig, water resources engineer for Scottsdale. "We feel like this is a long-term solution. This should provide water for 100 years."

The project was made possible by the November 1989 passage of nearly \$287.2 million worth of general obligation bonds for the purpose of funding a variety of public works projects called for in Scottsdale's five-year capital improvements program. Approximately \$6 million of that package was committed to non-potable and potable water delivery systems for the North Scottsdale area. The city is also planning a \$72 million water treatment facility.

A \$1-million, 16-inch potable water distribution line, extending approximately five miles will be constructed concurrent with the non-potable line, according to Phil Turner, PE., project manager for Greiner, Inc., the city's construction administrator.

Plans call for the CAP/Non-Potable Water Distribution System to enter service.... The untreated water will be stored in the new reservoir, which is the first step toward a city-operated wastewater treatment plant. When that plant is completed, the reservoir and pipeline will begin to transport effluent.

Flickwir joins LinksCorp. as VP

NORTHFIELD, Ill. — LinksCorp, a national golf course acquisition firm and management company, has named David Flickwir executive vice president and chief financial officer.

Flickwir, 41, joins LinksCorp from American Golf Corp. in Santa Monica, Calif., where he had worked for 13 years, most recently as vice president of acquisitions. He also was responsible for developing leads, financial analysis and negotiating contracts for public, private and resort golf courses.



designing and building golf courses around the world



**Cypress Golf Club #5
Los Alamitos, California**
Illustration by Elsie Dye

Under the direction of golf course architect and builder Perry Dye, Dye Designs has established its reputation throughout the world. Over the past ten years, Dye has continually met the challenges necessary to design and build unique, environmentally sensitive championship golf courses. Dye Designs believes that Dye golf courses will produce great golfers while providing enjoyment for all those who play them.

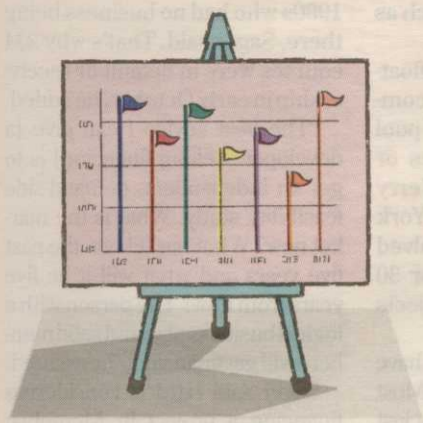
For further information or a request for proposal of services, please contact:

Perry Dye, President
O'Brien McGarey, Director of Business Development

Dye Designs International Headquarters: 5500 E. Yale Avenue, Denver, CO 80222
Tel: 303-759-5353 / Fax: 303-756-1292



BRIEFS



EAGLE'S LANDING SNARES PALMER

Arnold Palmer Golf Management has signed an agreement to provide management services to the city of Sevierville, Tennessee for Eagle's Landing Golf Club. The championship 18-hole golf course is scheduled to open in 1993.



Arnold Palmer

Arnold Palmer Golf Management has signed an agreement to provide management services to the city of Sevierville, Tennessee for Eagle's Landing Golf Club. The championship 18-hole golf course is scheduled to open in 1993.

NEW APPRAISERS PUBLICATION

The Society of Golf Course Appraisers decided to create an annual publication dealing with golf course topics during the association's semi-annual meeting in San Francisco. The SGA also admitted Gerald Teel of Houston as a new member and held a roundtable discussion on a variety of golf course valuation and analysis issues.

CASPER TO MANAGE SWAN POINT

Billy Casper Golf Management has been retained by USX Realty Development for their project at Swan Point Yacht and Country Club in Southern Maryland. Located in the town of Issue, the club is part of a Potomac waterfront community that will include 1200 single-family homes when completed and an 18-hole Bob Cupp-designed course.

CMAA SPONSORS HOLIDAY CAMPAIGN

The Club Managers Association of America (CMAA) is sponsoring the "Clubs Collecting for Communities" national campaign to aid communities across the country during the holiday season. Each of CMAA's 52 chapters will designate two charities and the "Toys for Tots" program as beneficiaries of the donations. Participating clubs are to be used as drop-off sights. Phase I, the food drive, is scheduled to start in mid-October and run until mid-November. Mid-November marks the start of Phase II, the clothing drive. The "Toys for Tots" drive, or Phase III, is scheduled to start the beginning of December. CMAA-member clubs raised \$83 million for charity in 1991.

AGC PROMOTES HARKER

American Golf Corp. has named Steve Harker vice president of marketing and sales. Harker has been at AGC since 1971, most recently as director of marketing. AGC manages 145 golf facilities in 22 states.

Investment pools growing as funding source

Millions raised for golf development and acquisitions

By PETER BLAIS

Multi-million-dollar investment pools formed solely to build and/or acquire golf courses are becoming increasingly important as a funding source in today's credit-short market.

Two of the larger ones involve Stewart Financial Co. of Palm Springs, Calif., and a joint venture uniting Jack Nicklaus' Golden Bear International and Marriott Corp.

The Stewart pool involves \$130 million in securities that a \$12 billion European pension fund has guaranteed to buy on the London, Brussels and Hong Kong markets, according to principal Bob Stewart. The money will fund 8 to 10 golf course projects that could include housing, resorts, marinas, practice centers and other amenities.

Among those signing letters of intent and/or joint venture contracts, Stewart said, are projects in Washington, Oregon, Wisconsin, Chicago, Ohio, Pennsylvania, New Mexico and Fresno, Calif. Projects in Virginia and

North Carolina could be funded in this or a second pool planned for early 1993, he added.

Pool money will finance 80 to 90 percent of the deals, Stewart said. Developers had to be willing to surrender substantial management control since investors are demanding a 60-percent equity position, he added. The remaining investment will be debt.

Stewart spent a year reviewing 200 proposals. Those making the cut had to have the land tied up through ownership or options, possess all necessary environmental and building permits, guarantee investors at least a 16-percent return on investment and offer future profits through lot transactions, sale of the course, memberships or other means, he explained.

"It's unusual in that the funding is guaranteed if the criteria are met," Stewart said.

Despite current conventional wisdom advising golf developers to avoid real estate in the still-depressed U.S. housing market, "We like the real estate component," said

Continued on page 26

'Good [golf real estate] projects can be profitable, even in today's market.'

— Bob Stewart, Stewart Financial

Appraiser says course owners asking too much

By PETER BLAIS

Are many golf course owners simply asking too much for their properties as potential buyers suggest?

Yes, according to Society of Golf Appraisers President Laurence Hirsh.

Hirsh said many owners are still setting their asking price based on the late 1980s when "the Japanese threw piles of money at several U.S. courses."

While foreign investors remain in the market for certain properties, they are not paying the outlandish prices they did a few years ago, the SGA official said. The market has become more sophisticated and owners must rethink their asking prices accordingly, he added.

Still, Hirsh believes golf courses are often undervalued and good buys for "someone who can operate them properly."

Several factors, Hirsh explained, conspire to keep prices down. Golf courses are management intensive; susceptible to weather, agronomic problems and

Continued on page 27

ClubCorp takes to the airways

By PETER BLAIS

ClubCorp's first television commercial has been very successful in increasing the company's visibility and attracting new business, according to Marketing Vice President Jerry Gelinis.



Jerry Gelinis

The 30-second spot showcases such premier ClubCorp properties as Firestone Country Club in Akron, Ohio, (site of the NEC World Series of Golf, Aug. 27-30), Pinehurst (N.C.) Resort & Country Club (site of the 1991 and 1992 PGA Tour's TOUR Champion-

ship, Oct. 26-Nov. 1) and Gleneagles Country Club in Plano, Texas.

It aired during the NEC and PGA TOUR events and will again at the Liberty Mutual Legends of Golf (May 3-9, 1993) at Barton Creek Country Club & Resort in Austin, Texas, also a ClubCorp property.

The message is: "Some of the world's finest courses have one thing in common. They are all part of the ClubCorp family. ClubCorp. Where members set the standard."

Aimed at course developers, potential financial partners and member-owned clubs considering hiring a management company, the ad attracted many direct responses to the company's 800 telephone

Continued on page 27

Coffin employees bemoan lack of security

By PETER BLAIS

Employees remain frustrated over what they view as a lack of security at an Indianapolis municipal golf course where a man was killed during a September robbery attempt.

Wilbur L. Colen, 69, died from a gunshot wound to the chest while playing golf Sept. 6 at Coffin Golf Course. James L. Sears, 22, of Indianapolis has been charged with murder in connection with the incident, according to the Indianapolis Star.

A man reportedly approached Colen and two golfers at the 4th tee. The man pulled a gun and demanded their wallets. One of the golfers grabbed for the gun, a struggle ensued and Colen was shot.

The location where the shooting took place is at the far edge of the course. Golfers are visible from nearby Cold Spring Road.

Public sidewalks border much of the course and a jogging path runs through it. "It's an accident waiting to happen," head pro Forrest Jones told the Star. "Joggers, baby-walkers, golf balls. They don't mix."

A vandalism complaint was filed with the police two years ago, Star reporter Erica Franklin said. Franklin added she had also heard reports of theft and harassment of golfers at the course.

Jones said youths hiding in the bushes have stolen golf balls and that vandalism has occurred at the clubhouse. A ranger position was eliminated earlier this year for budgetary reasons.

Rehiring the ranger and installing fences have been discussed with town officials, according to assistant pro Jeff King.

"We bring it up every year and they say 'We don't have the money.' We'll probably keep on talking until we're blue in the face, or there's a lawsuit," he said.

Golfers say water made them sick

By PETER BLAIS

CARLISLE, Pa. — A Cumberland County judge should decide by Thanksgiving whether to certify a class-action suit claiming people became ill after drinking contaminated water at Cumberland Golf Club.

The suit was filed by four people who say they and others suffered nausea, diarrhea, cramps and other symptoms from drinking the well water in July. They claim course owner Don Mowery and his family were negligent for allowing the contamination, using the water to prepare food after the contamination was known and concealing possible contamination from the public.

"We've seen no evidence that water at the course caused them to get sick," said Tim Marks, Mowery's attorney.

Notices to boil water were posted July 21, shortly after routine tests revealed high fecal and total coliform levels in the well water, according to a Department of Environmental Resources spokeswoman. Bottled water and fresh ice were brought in to protect people, The Carlisle Sentinel reported.

George Faller, the plaintiff's attorney, said the contamination was known three weeks before the DER test results and that the Mowerys should have posted the boil water notices then. Marks denied this.

Investment pools

Continued from page 25

Stewart, who has vast experience wholesaling land. "Good projects can be profitable, even in today's market."

Nicklaus and Marriott, on the other hand, are steering clear of residential golf course development in their new daily-fee pool, according to Clyde Measey, director of Golden Bear's daily-fee golf division.

Golden Bear, Marriott and Merrill Lynch formed a pool earlier this year to build new residential golf course communities, Measey said. They aimed the private place-

ment at institutional investors.

"It became clear very quickly that investors were hesitant to get involved because of the [depressed] real estate market," Measey said.

Realizing investors weren't interested in new construction, Golden Bear and Marriott turned their attention to acquiring existing courses without housing, Measey said. Plans are to buy two to five courses for an average \$5 million apiece over the next 12 months, he added. Golden Bear will make any improvements necessary before turning manage-

ment responsibility over to Marriott.

The two companies will fund their purchases with a combination of conventional financing and private placements with high-income individuals. Merrill Lynch is not involved in this latest venture.

Serious negotiations are underway with several projects, Measey said. The biggest challenge is educating current owners that their properties are worth less than they might have been in the late 1980s, when some foreign investors paid exorbitant prices for U.S. courses, he added.

"They are pricing their courses in the belief that [foreign] money

is still available. It's not. We base our offers on cash flow. Some owners are becoming aware their courses are not worth as much as they thought," Measey said.

At least 10 memoranda are floating around the investment community trying to raise blind pool money for new golf courses or acquisitions, according to Jerry Sager of HJM Corp., a New York investment banking firm involved with golf course projects for 30 years and \$100 million in projects this year alone.

"None of them [blind pools] have been very successful," he said. "Most aren't experienced in golf. They just

want to be in the golf business."

Golf's glamour attracted many investors to the business in the 1980s who had no business being there, Sager said. That's why 234 courses were in default or receivership in early October, he added.

"The best advice I can give [a developer seeking financing] is to get an independent, demand-side feasibility study. What is the market now? What has it been the past five years and what will it be five years from now? The person with a logical business plan and solid numbers will get financing," he assured.

Sager said HJM is considering financing a project in Memphis, Tenn., with The Prestwick Group, a Northbrook, Ill.-based company interested in developing 10 to 15 high-quality, reasonably-priced, daily-fee facilities by 1995. The course is located within a residential development. But it is designed to survive as a stand-alone entity that could meet its debt payments at just 50 percent of anticipated play, according to Prestwick President Brian Mahoney.

"They've done their research and based their decision on the demand for golf in the area. They're building a course with no residential project [dependence]. It will make money. That's not necessarily the case with a lot of the proposed projects out there," Sager said.

Roughly half the Memphis project's financing is debt and half equity, Mahoney said.

"The days of S&Ls funding projects at 120 percent of value are long gone," the Prestwick executive said. "A developer must bring a substantial amount of equity to the table to get the type of financing that is available today."

USGA survey

Continued from page 8

golf equipment.

The purpose of the National Golf Foundation's Golf Summits is to determine where the industry stands in the eye of the American public, decide what directions it should go, and galvanize action.

The American public has Gallop and Harris and a few dozen other pollsters. Hey, let the USGA poll potential members. Can it hurt to find out their feelings?

It can help to know what's muddling around in the heads of golfers — like those in California's San Mateo County, where golfers who belong to another course are among those who have opposed a new county course for 17 years.

You may feel they should be 1) flogged; or 2) educated. But, one thing is certain. The industry must try to understand why they feel the way they do if golf is going to advance in certain parts of the country.

The golf industry knows full well it cannot insulate itself from world opinion. So, let it discover that world opinion and formulate ways to change it.

The *Golf Course News* survey on the toughest and easiest "approvals" states (see page 21) tells us that in exclamation points!!!



Fox Lake Construction, Inc.
1174 Georgia Hwy.,
Franklin, NC 28734
704-369-2741
FAX 704-524-5441

Environmentally Sensitive? No Problem.

Appraiser

Continued from page 25

golfer habits; and require short-term commitments from customers (about 4-1/2 hours for 18 holes compared to six months or more for an apartment or office-space lease, for example).

On the other hand, golf courses are in short supply in many parts of the country. That should, in theory, help drive prices up.

"How many real estate properties are in demand these days?" Hirsh asked. "Not many."

The real estate industry uses cap (capitalization) rates to compare investments, Hirsh explained. Cap rate = net operating income/sales price. The lower the cap rate, the more a buyer is willing to pay for a stream of income.

When the Japanese were busy in the U.S. golf market in the 1980s, cap rates on some properties were less than 10 percent, Hirsh said. Cap rates have gone higher than 20 percent on some properties.

"Whether it's right or not, the market perception is that cap rates for golf courses should be around 12 percent," Hirsh said. "This doesn't mean every course should go at a 12-percent rate since risk levels vary based on individual property characteristics."

ClubCorp ad

Continued from page 25

number, Gelinis said. Numerous comments to employees came from viewers previously unaware of ClubCorp's various activities, he added.

ClubCorp completed 20 new deals in the past 20 months, including September's acquisition of prestigious Las Colinas Country Club near Dallas. That brings 230 private city clubs, country and athletic clubs, resorts and public-fee golf courses under the company umbrella. GolfCorp., a ClubCorp subsidiary, is the second largest operator of public-fee courses in the country.

The commercial reflects ClubCorp's new "guerrilla marketing mode," Gelinis said.

"Since we are primarily in the private club business, we've traditionally kept our marketing efforts private. As a result, people didn't know a lot about us," he explained.

"We needed to show we are a strong force in the golf course development market. At some point we'll modify the ads to show we are very involved in the public market, too."

Leslie Advertising wrote and produced the commercial. The company has directed Pinehurst's advertising since 1987.

Wild Dunes helps Fla. course recover from hurricane

Destination Wild Dunes, the private oceanfront resort on the Isle of Palms 15 miles from Charleston, S.C., has initiated a goodwill effort to assist the Ocean Reef Club during its recovery from Hurricane Andrew.

Ocean Reef suffered damage when Andrew ripped through south Florida. In addition, many of the resort's employees are residents of nearby Homestead and Florida City, two of the communities hardest hit by Andrew. Presently, Ocean Reef Club is providing shelter, food and clothing to more than 200 of its employees and their families whose homes were damaged by the storm.

Because the Ocean Reef Club is temporarily unable to honor previously scheduled conference business, Destination Wild Dunes will host some of these meetings for the resort. In addition, new business inquiries will be referred to Destination Wild Dunes until Ocean Reef re-opens on Dec. 18.

The profits generated from any of these meetings will be donated to the newly established Ocean Club's Employee Emergency Relief Fund, which will be used to assist employees who have been left homeless by the hurricane. Destination Wild Dunes estimates that the amount donated to the relief fund will exceed \$5,000.

"Having dealt with Hurricane Hugo in 1989, we know full well the hardships that Ocean Reef is going through right now," said Nancy Van Cott, a spokesperson for Destination Wild Dunes. "We wanted to assist them in their rebuilding efforts in whatever way we could."

Destination Wild Dunes not only offers Ocean Reef first-hand expertise in dealing with the aftermath of a hurricane, but it offers hope. Just three years after being devastated by Hugo—a storm that left the resort inoperable for almost a year while golf course, accommodations and staff were rebuilt and reorganized—Destination Wild Dunes is again a thriving golf, tennis and family beach resort.

Strong, durable, color-impregnated plastic housing won't scratch or mar clubs.

Easy access drain plug for quick cleaning.

Removable flanged base included. Optional pipe mounting bracket and spike kit available.

Just the right bristle pressure on clubs provides fast cleaning action in seconds.

Twist-lock lid removes easily, yet grips secure.

Reversible brushes with high quality bristles, stay tough — last longer.

You're Looking at a Product That Will Replace the Golf Tee!

Dirty clubs are a part of golf. But, cleaning clubs with a tee is fast becoming a thing of the past.

Why? Because players have discovered club washers. More players are asking for them every day, so why not give them the best . . . the fast, effective one from Par Aide.

It's the one club washer:

- That you can quickly mount on virtually any vertical or horizontal surface.

- That actually takes just seconds to clean and fill.
- With simple, quality construction for years of service.
- With over 4 years of field-proven player satisfaction.

When it's time to look at club washers, make sure your dealer shows you the one designed with your needs in mind, the one your players will thank you for . . . the one from Par Aide.



Privatizing military courses

Continued from page 1

golf program manager for the U.S. Navy: "DeConcini is very misinformed. His bill is not in the best interest of military golf."

Security is the major sticking point with the military, even though the fall of communism makes it harder to sell the "national security" argument for limiting access to military installations, Moffett said.

"They [military] already open bases to the public for things like air shows," Brown said. "If there are courses needing new roads or fencing to improve security, that

cost could be included in the bid process for management companies."

But Moffett said the added expense could be so great at high-security bases that management firms may not be interested in bidding.

The military also bristles at charges its courses are mismanaged and private companies could generate more than the \$20 million profit service courses reported in 1991.

Items like cart fees going uncollected have held down revenues, Brown said.

In defense of the military's management ability, Moffett pointed out that all base courses are self-supporting. The only exceptions are facilities in isolated areas that Congress has agreed to finance with appropriated funds, amounting to \$6 million annually. Golf course profits help subsidize non-profit programs, like day care and youth sports, whose funding has been slashed by Congress, he added.

"Mismanagement is not a rampant thing," Moffett said. "We have good internal controls. We have an annual seminar for our

golf managers on how to better run their courses. The portrayal that we are inefficient is being driven by management companies like American Golf Corporation. It's just not true."

The bill's proponents say opening military facilities to the public would help alleviate the shortage of tee times in areas suffering from a lack of golf courses.

But many base layouts are "already saturated" with military golfers, Moffett said.

'Opening military courses to the public is a big concern for nearby course owners.'

— NGCOA Director Michael Hughes

Having servicemen and servicewomen compete with civilians for scarce tee times would hinder the military from "offering one of the few quality-of-life benefits we can give military personnel," he added.

The handful of under-utilized facilities tend to be in remote areas, where little demand for extra capacity exists, Moffett explained. Commanding officers at each base should be allowed to make the decision whether to allow additional public play on a case-by-case basis, he said.

Allowing more public play would also put military courses in competition with the private sector, which military regulations forbid, noted *Military Clubs and Recreation* magazine editor Paul Reece.

"Have you considered the impact this may have on the local golf course owner, who generally is a small businessman, when the government begins to take his business away?" he asked DeConcini in a recent editorial.

"Opening military courses to the public is a big concern for nearby course owners," said Michael Hughes, executive director of the National Golf Course Owners Association. "It isn't fair for them to have to compete against courses with no start-up costs and that don't have to pay taxes. We've heard from members already about military courses that have become more accessible to the public. I'm sure we'll hear more if this bill is passed."

DeConcini hoped his bill, which was introduced in June, would be a rider on appropriations legislation this fall, Brown said.

But military objections slowed the process. It will instead be voted on as a stand-alone bill by the new Congress next winter, she added.

DeConcini has offered some modifications to his original bill based on feedback from the military, Brown said.

They include:

- returning 10 percent of profits to the individual base

- giving military employees priority over civilians for tee times.
- helping hold down greens fees for retired enlisted personnel through subsidies.

But the Office of Management and Budget is holding fast to its recommendation, which is reflected in DeConcini's bill, that management companies take over operation of the courses, Brown said.

"That's still not acceptable," Moffett said.

Hale Irwin
GOLF SERVICES, INC.

Experience

Quality

Tradition

Excellence

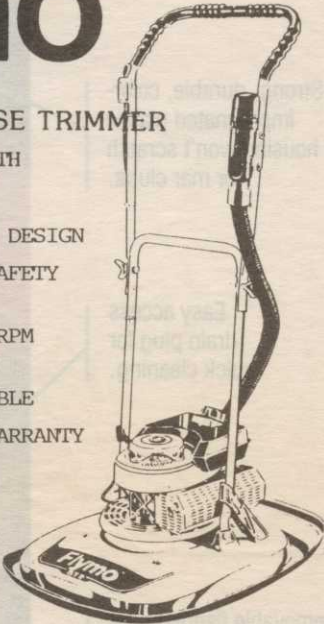
An International Golf Course Design and Development Company
Contact: Patrick J. Fister
12444 Powerscourt Drive, Suite 284
St. Louis, MO 63131
314/965-8787
314/965-8454 FAX

CIRCLE #119

Flymo[®]

GCT 20 GOLF COURSE TRIMMER

- * 20 INCH CUTTING WIDTH
- * WEIGHT 34 LBS
- * NEW REINFORCED DECK DESIGN
- * PATENTED & PROVEN SAFETY CUTTING SYSTEM
- * 98cc/2 STROKE/4200 RPM POWERFUL JLO ENGINE
- * COMPLETELY REBUILDABLE
- * 1 YEAR COMMERCIAL WARRANTY (ENGINE ONLY)



PRECISION
SMALL ENGINE CO.
POMPANO BEACH, FLORIDA
(305) 974-1960 OR 1-800-345-1960
REPS WANTED

CIRCLE #120

Laminated Wood Structures



Now Order Direct From the Leading Glued-Laminated Wood Manufacturer in the U.S.

Combined engineering with the aesthetics for greater versatility....

For more than 50 years, UNIT STRUCTURES, Inc. has been designing and manufacturing laminated wood structures from multi-million dollar buildings to park shelters and bridges...earning the reputation as "The Best of the Best".

- Complete Prefabricated Packages
- Ready for Fast Erection
- Highest Quality-Rigorous Inspection
- 2 Strategically Located Plants
Morrisville, NC - Magnolia, AR
- Custom Design & Engineering Available
- Direct Distribution

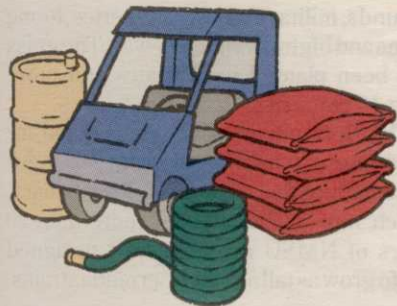


UNIT STRUCTURES, Inc.
The pioneer and leader in structural wood systems since 1934.

FOR MORE INFORMATION CALL
1-800-777-UNIT
P.O. Box A, Highway 54 West
Morrisville, N.C. 27560

CIRCLE #121

BRIEFS



HYNES JOINS KING TECHNOLOGY

ST. LOUIS — Mick Hynes has joined the marketing department at King Technology, Inc. With 12 years in the irrigation industry, Hynes will be responsible primarily for marketing King's irrigation products worldwide. Prior to coming on board at King, Hynes served as Canadian sales manager for Hardie Irrigation. He also served on the Urban Water Task Force at Texas A&M.

FOUNTAIN THE NEW SEACOAST REP

DAYTON, N.J. — Seacoast Laboratories, Inc., a provider of fertilizers and turfgrass seed, has announced the addition of Gerald B. Fountain as its representative to the golf course industry. A superintendent at Trenton Country Club since 1983, Fountain will be responsible for the sales and marketing of Seed Research Grass Seed and Twin Light "On Course" professional turf products. Fountain can be reached at 1-800-522-4769.

PROMOTIONS AT GARICK CORP.

The Garick Corporation, a Garfield Heights, Ohio-based landscape supply firm, has announced four promotions. Bob Kristoff, formerly customer response manager, has been named Midwest sales manager, while Joe Traudt has been appointed Southwestern sales manager. Steve Lendvay has been promoted to sales manager for northeastern Ohio, and Mike Gozelanczyk has been named general manager of the Horticultural Distribution Centers in Garfield Heights and Avon, Ohio.

SEED RESEARCH HONORS DISTRIBUTOR

CORVALLIS, Ore. — Seed Research of Oregon, Inc. recently presented its annual "International Marketing Excellence" award to Wright Stephenson & Co., N.S.W., Australia. Recipients are chosen from the Seed Research worldwide network of distributors. Paul Rea of Wright Stephenson accepted the award for his company's excellent job of marketing turfgrass varieties and supplying customers with valuable, technical information.

RUTKOWSKI TO HEAD TTIA

Jeff Rutkowski, special services supervisor at Environmental Care, Inc., was named President of the Texas Turf Irrigation Association, the primary educational resource for irrigation in the state. Certified in backflow prevention device testing, he focuses on water conservation, system uniformity and education. As an employee of ECI since 1982, Rutkowski supervises irrigation-related repair, installation, upgrading, estimating, design and consulting.

Lawn Institute to reestablish seal of approval

By MARK LESLIE

Indications are the Lawn Institute will resurrect its seal of approval for turfgrass seed.

Before the annual meeting Oct. 31, in Kansas City, Lawn Institute Executive Director Jim Brooks said: "I'm confident we will move ahead on the seal."

Once the seal of approval is given the go-ahead, the institute will write a new set of minimum standards for turfgrass seed. Brooks will try to get the seal on this season's crop, which will be packaged from November through January.

"We still have to massage the standards,"

'Basically, we're saying at least half a mixture has to be an improved variety... The Lawn Institute role would be one of a standards guarantor.'

— Jim Brooks, executive director of the Lawn Institute

he said. "They will ensure good quality seed. The seal, which has been used on and off by lawn-care companies, previously mandated 100 percent of one variety, but the industry is going more and more to blends. Basically, we're saying at least half a mixture has to be an improved variety. Then we have germination and purity figures, inert, other grasses — all standards that vary by grass.

"The Lawn Institute role would be one of a standards guarantor."

Brooks said the Lawn Institute wants to ensure consumers they are buying im-

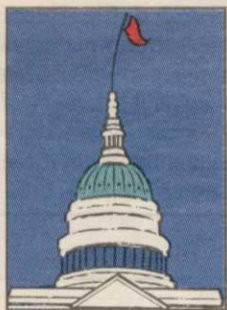
Continued on page 32

Ohio voters tackle warning label issues

By MARTHA LAYNE

An initiative on the Ohio ballot this November was considered by many small businesses to be more important than the presidential election.

Ohioans considered State Issue Five, a law which would require warning labels on consumer products sold in Ohio that contain chemicals known to put people at risk of cancer or birth defects. Products would need to be labeled if they contain one of 458 chemical substances which, in very high doses, have been shown to cause cancer or reproductive harm in rats. A substance is included on this list if it has caused *one* case of cancer or reproductive risk in an exposed population of *one million*.



At press time, polls showed the measure held a fifty-two percent approval rate, down from earlier estimates. A late advertising blitz by the measure's opponents is likely to

decrease voter support even further, leaving the issue too close to call.

If passed, the regulation would seriously affect golf courses, not to mention consumers, farmers, food producers, manufacturers and retailers.

Golf courses using substances which contain any amount of the listed pollutants would need to post notifications listing the pollutants and warning those on the premises. If exposures were likely to occur beyond the business premises, leaflets or letters would need to be sent — by direct mail — to all who reside or work within a two-mile radius of the exposed area. Notifications and leaflets would be required to read, *Warning: This area contains one or more toxic chemical substances known to cause cancer (or birth defects or other reproductive harm)*.

Businesses not in compliance would be subject to fines and criminal penalties, and a reward would be offered to citizens who report them.

The measure exempts state and local governments.

Opponents of the measure include Ohio Governor George Voinovich, who calls it

Continued on page 31



BIODEGRADABLE POLYMER TECHNOLOGY

These sod stakes, made from Novon specialty polymers, never need be removed because they're fully biodegradable. For details, call 1-800-35-NOVON. For more new products, see page 32.

Supers reveal buying habits

By HAL PHILLIPS

OAKBROOK, Ill. — More than 50 marketing and advertising executives took part in the "Marketing to Golf Courses" conference sponsored by *Golf Course News*.

In a pair of revealing sessions, attendees had the chance to discuss buying habits and attitudes directly with panels of superintendents and architects.

The superintendents—Tim Hiers of the John's Island Club in Vero Beach, Dave Fearis of Blue Hills CC in Kansas City, Roger Stewart of Stonebridge CC in Aurora, Ill., and Steve Schroeder of Eagle Creek Golf Club in Indianapolis—spoke frankly about sales techniques that work and those that don't. Panelists agreed that direct mail was not an effective advertising medium — especially compared to personal contact, they said.

"I want a knowledgeable sales person, not an order-taker — you

Continued on page 31

Turf Diagnostics makes TV debut

The "outside world" recently got a close look at Turf Diagnostics & Design, the respected golf and sports turf laboratory. During the ABC College Football Game of the Week on Oct. 3, TD&D was featured in a segment showing how proper consulting and lab testing can enhance turf safety and performance.

"We look forward to telling sports fans about the tremendous impact that the turf's condition has on the performance and safety of football, baseball and soccer fields," said Steve McWilliams, president of the Olathe, Kan. firm.

The feature, which aired at the start of the Miami-Florida St. game, will air later this year — probably later this month — during an ABC Monday Night Football Game.

McWilliams, whose firm is bringing the advancements pioneered on golf turf to other sports, said he believes the movement back to natural turf, from the extensive use of artificial turf, will benefit everyone in the industry.

"A key reason for the movement back to natural turf is the performance of layered sand-based turf systems, which are used extensively in the golf industry. Layered sand-based systems are safer and more cost efficient than artificial fields."

Deere honored for mower design

CHICAGO — The Chicago Athenaeum: Museum of Architecture and Design has recognized three John Deere mowers for their excellence in design, as part of the museum's Good Design program.

The three mowers included the F1145 commercial front mower, the LX188 lawn tractor, and the model 320 lawn and garden tractor.

The Chicago Athenaeum Museum defines the art of design in a multi-disciplinary fashion. Architecture, industrial and product design, graphics and urban planning are all taken into account. The museum sees its mission as the advancement of public education about the value of good design, and how design can have a positive effect on people.

"John Deere human-factors engineers, working with our industrial design partners, have been practicing ergonomics for decades," said Myron McCunn, manager of Advanced Machine Concepts at the John Deere Technical Center in Moline, Ill. "That's the science and the art of designing machines that are comfortable for people to operate. We strive to make the practical also aesthetically pleasing."

More than 200 designs were submitted for the 1992 Good Design award program.

•••

In other John Deere news, the company has announced a warranty extension. Beginning with the 1993 models, the warranty period will be two years, unlimited hours for John Deere F900 series wide-area front mowers and the F1145 front mower. The warranty for personal use continues unchanged: two years, unlimited hours.

Royalties from NuMex Sahara benefit NMSU

LAS CRUCES, N.M. — Royalties continue to accrue from sales of a seeded Bermudagrass developed at New Mexico State University.

Third-year sales of NuMex Sahara, sold exclusively by Farmers Marketing Corporation of Phoenix, have generated royalties of \$102,187 for New Mexico State. The New Mexico Crop Improvement Association (NMCIA) recently accepted the check

at NMSU's Gerald Thomas Hall.

"The major portion of that royalty will be distributed back to NMSU's Agricultural Experiment Station for research and other distribution within the College of Agriculture and Home Economics," explained Charles Glover, MMCIA administrative officer.

NuMex Sahara is designed for use on golf courses, sports arenas, parks, play-

grounds, military bases, cemeteries, home lawns and highway rights-of-way. The grass has been planted in 17 states and more than 40 countries.

The Bermudagrass variety is noted for its drought tolerance, dark green color and medium fine texture. NuMex Sahara, which was developed after more than 20 years of NMSU research, was designed not to grow as tall as other Bermuda strains.

BIG-small partnerships

Continued from page 1

megafirms look to use their name recognition to carve a larger piece of a growing market.

Does this sort of agreement make the golf industry healthier? Or does the one-stop-shopping mentality threaten competition?

Answers, of course, depend on who's issuing them.

"It's great for us — we make money," said Peter Gross, president of Aeromix. "A company like Toro, this behemoth, can do a lot of things very well. But there are a lot of niche markets they can't reach very well. Entering into the partnership with us is a way for them to get at those niche markets."

"Toro profits indirectly by our profiting and expands its involvement in a field it's already involved with."

Gross indicated the recognizable red & white of Toro was very important to the agreement. "How do you compete with the Toro brand name?" he asked rhetorically.

According to Charlie Barebo, president and CEO of Otterbine/Barebo, Toro approached his firm about "seven or eight years ago" looking for a partnership or buyout agreement. O/B declined and now finds itself competing with the Toro brand name.

It that intimidating?

"Hell, yes!" Barebo said with a laugh. "Here we are, a family-owned business up against a company selling \$1 billion worth of product. I don't feel threatened by it, but I'm alerted by it. It's made us more competitive. It's made us a better company."

"The big advantage we have, as a small company, is we make decisions very quickly and implement them very quickly. We also have a loving relationship with our distributors. Now, not all of our distributors would say that. But we consider them family, and we're going to use that to beat the hell out of Toro."

Barebo is quick to point out, however, that all firms reach agreements of this type, though not necessarily on the same scale. The relationship between O/B and its distributors is also a partnership, he pointed out.

"Seventy percent of all our distributors are also Toro distributors, all independently operated," he added. "And the feedback we're getting is, they're happy with our product and service. Many aren't taking on the Aeromix line."

Gross and Barebo disagree on many things, but they agree the golf industry will witness the creation of similar partnerships with increasing frequency.

Last spring, Toro added Bio Humatics, a bio-tech liquid fertilizer manufacturer, to its list of "junior partners." This year alone, biosys — a small producer of biological pesticides — has forged separate marketing relationships with three heavy hitters in the chemical industry, Ciba-

Geigy, Archer Daniel Midland and Sandoz.

"The bottom line is, it's an efficiency strategy," explained Adrienne Ste. Marie, product manager for Palo Alto-based biosys. "By aligning ourselves with Ciba-Geigy, for example, we reach more people. There are 50 people in our company, but only two salespeople. Ciba-Geigy has 18 to 20 [salespeople]."

Ste. Marie also indicated the alliance with Ciba-Geigy gave biosys instant credibility. If an established company like Ciba-Geigy invests time and money, customers can be sure biosys isn't selling snake oil, she said.

Before joining biosys, Ste. Marie worked in the pharmaceutical industry, where BIG-small partnerships thrived. While they've been more common in the bio-tech portion of the golf course industry, expect to see more BIG-small agreements in the turf and machinery sectors, she said.

Barebo already sees this phenomenon sweeping the American economic landscape. In Barebo's 13 years with the company, O-B has been with four different banks. "And all of those relationships dissolved because these little banks were purchased by big banks," he said.

"I think it's definitely a trend," said Gross. "All you have to do is look at today's world. They just built a Walgreens next to my house. They sell pizza now!"

"You have to realize you can't develop all this stuff on your own. There isn't enough time in the marketplace anymore. Toro doesn't have five years to develop an aeration line. They need it today."

MAXON CS-0510 Regularly \$279.75
NOW \$199.75
You Save \$80.00 per unit!

5 watt, 4 channel compact radio complete with crystals on Ch-1, flexible antenna, nickel cadmium battery, belt clip, audio connector, AC wall-type charger, and one year warranty.

PAGE COM
800-527-1670
 10935 Alder Circle, Dallas, Texas 75238
 (214) 680-9750 Fax: (214) 349-8950

Put A Ranger In Every Cart!



CARTROL
 THE GOLF CART CONTROL SYSTEM™

This amazing new system controls golf cart traffic and eliminates confrontation with cart patrons. The system helps prevent soil compaction and turf crushing problems and it maintains play quality around the greens. Cartrol also provides security for the course storage area.

Call the CARTROL Company for more information
215-651-0999

© 1992 The Cartrol Company, a division of Invisible Fence Co., Inc.

C-G promotes Towne, Watson

GREENSBORO, N.C. — Owen Towne has been named manager of international Turf and Ornamental Products at Ciba-Geigy.

Formerly product manager for fungicides in the U.S. Turf and Ornamental Products group, Towne will be responsible for establishing worldwide markets for Ciba-Geigy Turf and Ornamental Products. Towne, who will be based in Paris, assumed his new duties in mid-September.

Towne joined Ciba-Geigy in 1985 as a market researcher with

the Agricultural Division. He has been product manager for fungicides in Turf and Ornamental Products since 1988.

Dr. Eileen Watson has been named Towne's replacement in the U.S. Turf and Ornamental Products group.

Watson, who holds a doctorate in plant pathology, has been with Ciba-Geigy for 10 years. She joined the company's Agricultural Division as a research specialist and has worked as a state registration specialist.

Hendrix and Dail enter turf services industry

GREENVILLE, N.C. — Hendrix and Dail, a member of the soil and fumigation business for 28 years, has expanded into the turf services industry. Hendrix and Dail turf services now include aeration, Yeager Twose, Verti-Drain, Verti-Cutting and Aerway. It also offers laser leveling of golf tees, complete golf course renovation and construction, and turf consulting services. Hendrix and Dail has five locations: Greenville, N.C.; Oxford, N.C.; Tifton, Ga.; Palmetto, Fla.; and Frankfort, Ken. For more information, call 1-800-662-4130.

ASPA conference Feb. 3-5 in the Crescent City

NEW ORLEANS — The American Sod Producers Association (ASPA) 1993 Midwinter Conference and Exposition will be held here Feb. 3-5, at The Fairmont Hotel, University Place.

With topics ranging from environmental issues to agronomics — with an emphasis on family business management — the program is sure to provide something of interest for everyone.

Further, the manufacturers and suppliers of the latest in machinery, products and technology will be featured in three days of open displays in the Fairmont.

For more details on the exposition, the ASPA or membership, call 708-705-9898.

Ohio Issue Five

Continued from page 29

"badly flawed." Other opponents on record include the Ohio Environmental Protection Agency, The Director of the Department of Agriculture, and the Food Industries Center. The group Ohioans for Responsible Health Information also opposes the measure, saying that it is one thousand times more stringent than current measures, ten times more stringent than the California law, and that it is likely to scare consumers, produce unnecessary warnings, and seriously harm Ohio's business climate.

The initiative is sponsored by the Nader-affiliated group Ohio Citizen Action. Ed Hopkins, environmental policy director, said a similar California law has been successful in reducing exposures to toxic substances by encouraging manufacturers to replace toxic ingredients with those which do not require a label.

Buying habits

Continued from page 29

know, some guy who shows up once a year at budget time," said Fearis. "It behooves the sales rep to be more knowledgeable and it behooves the sales person to educate the superintendent. That develops trust. It'll pay off in the long run."

Said Hiers: "There are salesmen who can really help you — what's working and what's not working. Who's been using a product and where to find him. I'll buy from that guy."

On the advertising side, superintendents said they looked dimly on the testimonial genre. Ads should be short, attention-grabbing and to the point, said Stewart.

Other subjects of discussion during the two-day conference included:

- An golf course-centric look at Asian economic development from Tom Gorman, president of CCI-Asia Pacific Ltd.

- An in-depth portrait of new product development (Poly-S technology) from marketing executives at O.M. Scott.

- Advertising and direct mail "dos and don'ts" from telemarketing consultant Mac McIntosh.

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.

Scott's ProTurf

Growing Better Through Technology

New Blazon Paks

Milliken Chemical, manufacturer of Blazon Spray Pattern Indicator, has announced the introduction of Blazon E-Z Pak Spray Pattern Indicator in water-soluble packets.

Blazon E-Z Pak is designed to combine the solubility and non-staining of liquid Blazon with the convenience of water-soluble, pre-measured packaging. Each packet will treat 25 gallons or more of tank solution.

For more information, call 803-472-7275; or write Milliken at P.O. Box 817, Inman, S.C. 29349.

CIRCLE #201

Deere introduces a new pair of Gators

John Deere has introduced two general all-purpose turf vehicles dubbed "Gators." Designed to feature aggressive traction, stability and light footedness, the Gator has a low center of gravity and a wide-stance front end.

The 10-hp Gator 4x2 rolls on four wheels with two-wheel drive and differential lock. The cargo box hauls 500 pounds and the payload capacity, with operator and passenger, is 900

pounds. The 18-hp Gator 6x4 rolls on six wheels with four-wheel drive. The cargo box hauls 800 pounds with a total payload of 1,200. On both models, new continuously-variable transmissions drive an improved heavy-duty transaxle that turns in an oil bath for long life. For more information, call 919-954-6420; or write John Deere at P.O. Box 29533, Raleigh, N.C. 27626.

CIRCLE #202

Software for architectural drafting

LABB Systems/Software has added Green Thumb's computer-aided design (CAD) package, LandDesignerPro, to its line of IBM PC-compatible software products for the green and grounds maintenance industries.

LandDesignerPro will create architectural landscape drawings in both plan and elevation formats. LDP has a 12-layer-deep flexibility and architectural drafting symbols and a sprinkler system layout feature with the ability to test project coverage and flow usage.

LABB has also completed a new

video showing the role this software can play in the daily activities of a golf course superintendent. For more information, call 1-800-733-9710; or write LABB Systems/Software, 6018 East Osborn Road, Scottsdale, Ariz. 85251.

CIRCLE #203

Diggin' it

Dig-It Manufacturing, a division of Spancrete Machinery Co. of Waukesha, Wis., has introduced its Model 158N towable backhoe powered by compressed natural gas (CNG).

The unit has a 3000-PSI capacity cylinder over the rear hydraulic reservoir. This capacity is equivalent to six gallons of gasoline and enables the Model 158N to run for six hours of continuous operation. Available in dual-fuel or dedicated CNG systems, the 158N is a hydraulically self-propelled towable backhoe with an 8.5-foot digging depth. For more information, call 414-542-0481; or write Dig-It Manufacturing, 945 Blackstone Ave., Waukesha, Wis. 53186.

CIRCLE #204

It's the better way to clean and dry golf balls.

What you're looking at is the leading edge of the tee towel technology. But that should come as no surprise. Because these green and tan beauties are the new CHIX[®] Deluxe Tee

Towels. They're made by Chicopee, the same people who have

What else would you expect from the newest CHIX[®] towel?

manufactured golf's most popular tee towels for more than 25 years. ♦ Take a closer look and you'll see that they have a tough, ribbed texture that's so different,

it's patented. They clean balls quickly.

And they absorb a lot of moisture. ♦ So

how well do they work on the course? In a

recent nationwide survey, CHIX Deluxe Tee Tow-

els were preferred by eight out of 10 golf course superin-

tendents. We think you'll like them, too. ♦ But you'll never

know for sure until you try them for yourself. ♦ For complete infor-

mation, simply contact your nearby Standard

Golf distributor. And put your hands on

the best tee towel in golf.

**STANDARD
GOLF[®] Pro-Line**

Lawn Institute

Continued from page 29

proved turfgrass varieties or blends "We have a responsibility, and we have a good environmental story to tell: that we have grasses that are drought- and insect-tolerant," he said.

He said the institute also plans to develop brochures on the care of turfgrass, and to include this information in grass bags and boxes. Consumers would be told they could write free to the institute for how-to pamphlets on selecting the right grass, mow, fertilize, overseed, and renovate or establish a new lawn.

"The whole idea is to try to bring the industry together to get correct information to the consumer, and tell the pro-environment story as it relates to turfgrass," Brooks said, adding that golf course superintendents "could help us by giving this information to their club members. We've also thought about asking the PGA to put it in pro shops. Who would be more appreciative of grass than the golfer?"

The institute wants to get the word out to the Extension Services around the country because they are often asked to recommend seed. "Extension people could say, 'You should look for seed that has the Lawn Institute seal of approval.'

"I think everybody wants to do this. It's a matter of how we get it done. We need to have the majority of the industry in the program and cooperating," Brooks said.

Golf Course Marketplace

To reserve space in this section, call Simone Marsteller at 813-576-7077

ADVERTISING INFORMATION

NEW RATES FOR 1993

	2X	6X	12X
Per col. inch:	\$60.00	\$55.00	\$40.00
Add-on per 1/4":	\$15.00	\$13.75	\$10.00
Logo incl. in ad:	\$30.00	\$30.00	\$30.00

- Rates are per insertion.
- Minimum 2-time insertion.
- Prepayment is required.

Send prepayment and ad copy to:

Golf Course News
7901 4th St. N., Ste. 311
St. Petersburg, FL 33702
813-576-7077 • Fax 813-579-9788

EMPLOYMENT

IRRIGATION SUPERINTENDENT

Large Irrigation Company looking for experienced installer for Golf Courses. Maxi & Network exp. required. Fax resume & salary requirements to:

(318) 868-4932

DISTRIBUTORS NEEDED

To sell Prefabricated Drainage Systems: Erosion nettings for foundations, trenches, roads & golf courses. Write or call: **Paul Tarko, Sr., Drainage Products, 383 South Main St., Windsor Locks, CT 06096. Tel: (203) 668-5108.**

SALESPERSON WANTED

Mid-Atlantic manufacturer of fertilizers & fertilizer-related products seeks an experienced sales representative for its golf course division. Bachelor's in horticulture or agronomy required. Send resume to:

Moyer & Son, Inc.
Attn: Golf Course Division
P.O. Box 198
Souderton, PA 18964

GOLF COURSE SUPERINTENDENTS WANTED

For S.E. Asia assignments. 1 & 2 yr. contracts. Applicants must meet all of the following qualifications: 1) Strong technical, organizational & training skills; 2) Two yrs. exp. as superintendent or asst.; 3) Single; 4) 2 or 4 yr. turf or related degree, golf course constr. exp. a plus. Mail resumes & references to: **Environmental Turfgrass Systems, 500 Ala Moana Blvd., #7-400, Honolulu, HI, 96813. No telephone calls please.**

SUPERINTENDENT

The owner of a Dye golf course in Thailand wishes to hire a qualified superintendent to work in Phuket, Thailand for a period of at least 2 years. Send resume with salary requirements to: **Thai Muang Beach Resort Co. Ltd., 319/15-19, Rart Xalerm Bldg., Wiphawadi Rangsit Road, Phayathai, Bangkok 10400 Thailand. Or fax to (662) 271-4832, Attn: Dean Glorso, Project Manager.**

EDUCATION

GRAYSON COLLEGE, Dennison, TX. 2-year technical program in golf course & turf grass management. 18-hole golf course on campus. Dormitories, placement assistance, financial aid & scholarships available. Contact: **GCC, 6101 Grayson Dr., Dennison, TX 75020. (903) 463-8653.**

REAL ESTATE

DRIVING RANGE FOR SALE

Atlanta Metropolitan Area — 27.77 acres; 8 batting cages; 36 holes miniature golf; 65 tee boxes; 3,000 s.f. building offering Pro Shop; Game Room; Party Room; Club Repair; Small "Snack" Kitchen; 100 car paved parking lot. Reasonably priced. Contact **Skip Smith, (404) 425-1453.**

GOLF COURSES TO SELL OR BUY!

We have golf courses for sale, but we're always looking for more courses to offer our many qualified buyers. If you would like to acquire or sell a course, please give the professionals at **GOLF PROPERTIES REAL ESTATE** a call today! **Richard M. Farrell or Richard "Rip" Pratt, III, Lic. R. E. Brokers, 1230 S. Myrtle Ave. #404, Clearwater, FL 34616.**

(813) 447-GOLF
Fax (813) 442-6262

TEXAS GOLF COURSES

9 & 18 holes — Statewide.
Some with extra land, dev. lots.
Descriptive list available.

TEXAS GOLF PROPERTIES
1603 Lightsey — Austin, TX 78704
512/442-7105 • Fax 512/442-1812

WESTERN NEW YORK

600 acres - 45 miles south of Buffalo, located in Ellicottville, NY (also home to popular Holiday Valley Ski & Golf Resort). Rolling terrain, some flat, great views. Perfect for 27/36 hole golf course & resort development. Area draws from Southern Ontario, Cleveland, Pittsburgh, Rochester, & Buffalo. \$6,500/acre.

Tim Hourihan/Bob Culm
Stovroff & Herman, Inc.
(716) 689-8101

FOR SALE

STEEL BUILDINGS

Save up to 50% on Arch Style Buildings. Factory Clearance. 25x30; 40x40; 50x100 & others. Factory Direct.

UNIVERSAL STEEL
1-800-548-6871

POND LINERS

Buy direct from fabricator 20 & 30 mil. P.V.C. Made to order. Under 20 cents per sq. ft. Installation or supervision available. Call...

COLORADO LINING COMPANY
(303) 841-2022

PIPE LOCATOR

Inexpensive! Locates; traces underground drain; water pipelines of clay, PVC, ABS, steel cement. Finds sprinklers, valves, clogs. **Bloch & Co., Box 18058, Cleveland, OH 44118. (216) 371-0979.**

BUSINESS SERVICES

"ERIC"IFICATION

Lots of Play? No Time to Aerify? We'll aerify with a water-injection system.

- Reduces Compaction
- Improves Water Infiltration
- Deepens Root Growth
- Doesn't Disrupt Play

Call **Eric Gerdes, (813) 688-8425**
531 Howard Ave., Lakeland, FL 33801
(Covers state of Florida only)



Mid Tenn Turf, Inc.

Golf course, athletic field renovations & new construction. Sodding, sprigging, row planting, fairway renovations. Complete turn key operations. Products include: Vamont Bermuda; Tif & Tif II Bermudas; Meyer Z-52 Zoysia; Blended Fescue.

Mid Tenn Turf, Inc.
Rt. 3, Box 3199
Manchester, TN 37355
Phone (615) 728-0583

LASER MEASURING

LASER MEASURING and SPRINKLER YARDAGE MARKERS

We do it all. Laser measure & installation (same day) of **custom metal yardage markers** for all types of sprinkler heads. Warranty included. Also tee to green measurements, granite fairway markers. Sprinkler yardage markers may be purchased separately. Contact Nick for samples & references. **Fairway Designs of Florida, 800-36-TAGIT.**

GOLF COURSE ACCESSORIES

SAVE 40% OR MORE!

Buy personalized flags factory direct & save 40% or more. Flagpoles, tee markers, etc. also available. Fast personalized service guaranteed. Call toll free.

1-800-476-7005



FOUR SEASONS GOLF COMPANY

P.O. Box 78011
Greensboro, NC 27427

WHY HASSLE WITH SEVERAL VENDORS?

- Scorecards
- Sprinkler Tagging
- Yardage Books
- Fairway Markers
- Laser Measuring
- Tee Signs (wood or granite)

Call **FORE BETTER GOLF, INC.**
1-800-468-8672

CUSTOMIZED YARDAGE MARKERS

- ✓ Highest quality bronze markers for tees, 100, 150 & 200; & cart paths
- ✓ Sprinkler head yardage tags to fit all automatic systems
- ✓ Yardage books — 1 & 4 color
- ✓ Laser measure per USGA standards

For more information, references or samples, contact:

From Tee to Green, Inc.
1707 Brandywine Trail
Ft. Wayne, IN 46845
(800) 932-5223

Roberts on Gore

or bad, desirable or undesirable. The senator states uses well all the evidence at his disposal to emphasize the serious nature of environmental deterioration both locally and globally. He believes public support for his position can be developed, media influence can be positive, and technological influences in data availability can be convincing.

We must scrutinize the issues and evidence to determine the level of our support for environmental causes. To do this effectively, Gore initiated a fundamentally sound approach. "I began to separate the parts of the environmental issue that were fundamentally local in nature, like hazardous waste sites, from those that represented threats to the entire globe."

Only in this way can we grasp the true significance of what is happening around us, and determine appropriate courses of action.

Gore writes, "The more deeply I search for the roots of the global environmental crisis, the more I am convinced that it is an outer manifestation of an inner crisis that is, for lack of a better word, spiritual. As a politician, I know full well the special hazards of using *spiritual* to describe a problem like this one. For many, it is like one of those signs that warns a motorist 'steep slope — truckers use brakes.' But, what other word describes the collection of values and assumptions that determine our basic understanding of how we fit into the universe?"

We need to know who we are and why we are here. Is it to destroy the earth? Are we here to rid the earth of this civilization? Is it really materialism that we worship? Does the concept of dysfunctional family life extend to civilization in general? These are spiritual questions that involve values. Many leading educators in recent years have lectured on the real issues of our time being spiritual and not technological. And yet, our attempted solutions so often emphasize technology.

The senator details the needs to change attitudes regarding earth sciences, economics, sociology, learning from history, psychology, philosophy, religion and implications of development.

Without these changes, there may be reasonable doubt whether civilization can survive. Gore suggests a "Marshall Plan" approach, based on assumptions that democracy and modified free markets are preferred worldwide; and a global civilization is preferred over one with diverse objectives. Five strategic goals must receive attention to realize true implementation of this plan.

- World population must be stabilized.
- Appropriate technologies must be developed and shared in agriculture, forestry, energy, building technology and waste reduction and recycling.
- A new global economic plan must be set in place.
- A new generation of treaties and agreements must be enacted.
- A new global environmental consensus must be implemented.

Gore believes it is crucial that this plan be worked out now before population increases make a global environmental consensus even more difficult. Gore describes changes needed in global

Continued on next page 9

Golf Course Marketplace

To reserve space in this section, call Simone Marsteller at 813-576-7077

PUT THE BITE ON ALGAE

• SOLVE YOUR PROBLEMS WITH ALGAE AND ODORS

(5) REASONS TO USE ECOPAK

1. Predictable Performance
2. Proven Design
3. Cost Effective
4. Easy to Install
5. No Maintenance

CUSTOMER LEASING PLANS AVAILABLE
Distributor inquires welcome!



OZONE AERATION SYSTEMS

P.O. Box 1295 Morro Bay, CA. 93443 Ph. 805-541-2206 Fax. 805-541-2532

CIRCLE #170

TRIMS
Grounds Management Software

Dedicated to Technology in Turfgrass Management

Experience what TRIMS can do for you!

- Budget & Expenses
- Equipment Service Records
- Spare Parts Inventory
- Personnel & Labor Records
- Chemical Application Logs and more!

Call or write today to receive free literature and a demo disk (3 1/2, 5 1/4).

LABB Systems/Software
6018 East Osborn Road
Scottsdale, AZ 85251
(800)733-9710

CIRCLE #171

WEATHERGUARD
Fleet Car Storage
LOW PROFILE • DRIVE THROUGH DESIGN
MODULAR, FREESTANDING, EXPANDABLE, & FAST. CALL FOR IMMEDIATE QUOTE
1-800-289-8827
100 WEST ASHE STREET, JOHNSON CITY, TENNESSEE 37601 (615)926-1470

PROTECT YOUR FLEET FOR AS LOW AS \$600 Per Square Foot ERECTED

ROLL-UP DOORS

CIRCLE #172

Keep Your Divot Seed Mixture Where It Is Used ...



... in Divot Seed & Soil tee buckets next to the tee markers. Available in Cedar or Redwood slats and with companion Trash'M debris buckets.



Ask Your Golf Course Distributor for INNOVATIVE MAINTENANCE PRODUCTS

From

Master of the Links



P.O. Box 283, Lockport, IL 60441-0283
(815) 723-4444 • Fax (815) 723-4485

CIRCLE #173

Nationwide delivery • Install in less than two hours

Golf Course Bridges!
1-800-328-2047
Thousands in use. Built to last. Sponsor Member
CONTINENTAL BRIDGE
Route 5, Box 178, Alexandria, MN 56308 • (612) 852-7500
NGF
NATIONAL GOLF FOUNDATION

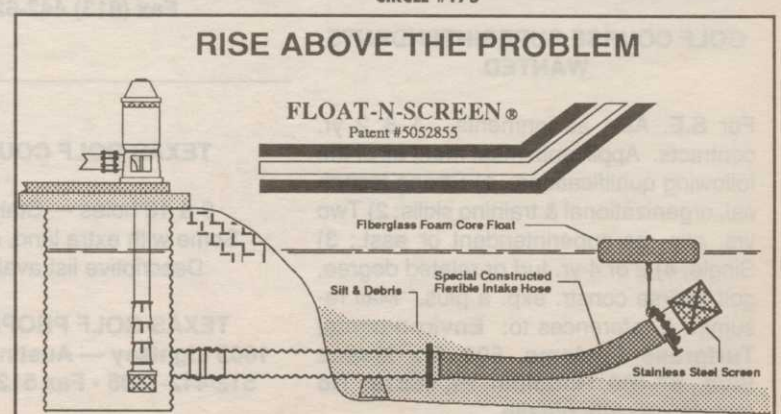
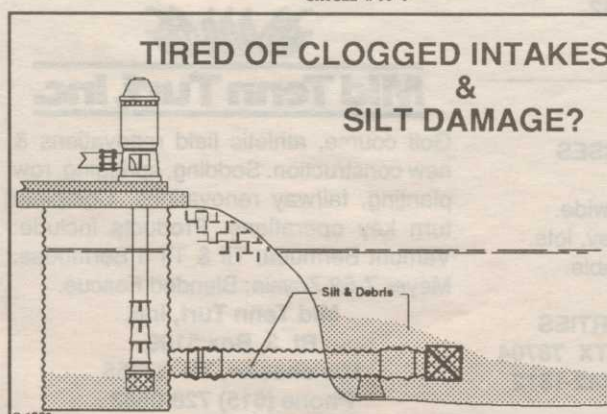
CIRCLE #174

ACCU-GAGE™
Accu-gage™ is a precision measuring instrument for making highly accurate height-of-cut adjustments on greensmowers or other precision mowers.
Available in 15", 18" and 24" bars.

GROOMER-GAGE™
Groomer-gage™ is a precision measuring instrument for accurately setting the desired grooming depth of groomer or verticutter units.

For more information on this and other precision tools call Toll Free:
1-800-253-2112 or 313-429-9571 FAX: 313-429-3985
PRECISION TOOL PRODUCTS CO. 7836 Bethel Church Rd. • Saline, MI 48176

CIRCLE #175

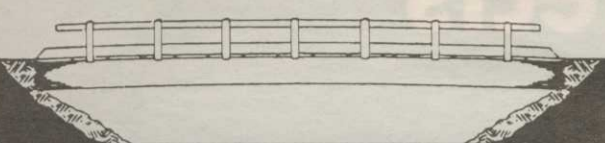


Float-N-Products™: Float-N-Screen®, Float-N-Foot Valve®, Float-N-Pump™, Skid-N-Pump™

By Greenscape Pump Services, Inc., 556 Coppell Road, Coppell Texas 75019 Ph. # (214) 393-0346

CIRCLE #176

Golf Course Marketplace



Timber Bridges

by Western Wood Structures, Inc.
Call Chuck Schmokel - 503/692-6900
1-800-482-4004

CIRCLE #177

Our services are available to Private Courses, Resort Courses, Municipal Courses, Golf Course Architects, Development Companies and Clubhouse Designers.

GOLF GRAPHICS

GOLF COURSE IMAGE DEVELOPMENT

SPECIALIZING IN TOTAL IMAGE DEVELOPMENT

- LOGO DESIGN
- COURSE & CLUBHOUSE SIGNAGE
- BROCHURES
- PRO SHOP SIGNAGE & GRAPHICS
- GOLF COURSE PHOTOGRAPHY
- MARKETING ASSISTANCE

1604 ROYAL • MONROE, LA 71201 (318) 388-1644

CIRCLE #178

Keep That Edge



pinhigh

reel sharpening compound

Contact Your Local Distributor or Call Us
Toll Free 1 (800) 422-4748

CIRCLE #179



QUAIL VALLEY FARM, INC.

"Growers of Quality Turf Grasses"

- Meyer Z-52 Zoysia
- El Toro Zoysia
- Tall Fescue
- Sprigs
- Tifway II
- Tifdwarf
- Tifgreen II
- Big Rolls

(800) 666-0007
7501 Kanis Road
Little Rock, AR 72204
(501) 224-8873

CIRCLE #180

Keep frost at bay!

(and give your golfers more time to play)

TurfTemp

HEATING/COOLING SYSTEMS

BioTherm 800-GET-HEAT POBox 750967, Petaluma, CA 94975

CIRCLE #181

ENGRAVED YARDAGE LABELS

FOR SPRINKLER HEADS



Call for Free Sample Kit

- Bright colors
- Fasteners included
- Orders quickly shipped UPS

1-800-284-YARD
THE YARD EDGE GOLF CO.
P.O. Box 13159 Wichita, KS 67213

CIRCLE #182

FREE SAMPLE!

TOUR-LEVEL™ SAND RAKES



The ONLY Tour-approved rake with:

- * No-Splinter Oval Handle
- * Flow-Thru Smoothing
- * Polycarbonate Head

(919) 765-GOLF (4653)
Innovative Golf Products, 104-5 Griffith Plaza Drive
Winston-Salem, NC 27103 FAX (919) 765-9955

CIRCLE #183

NEW! Sand Based or Washed

PENNCROSS & PENNLINKS (100% or 50/50)
Maryland and Pennsylvania Grown

- Sand Based (USGA)
- Washed (Native Soil)
- Native Soil (Duffield Silt Loam)

BENTGRASS SOD

Call Toll Free: 800-USA-TURF (872-8873) or 717-898-5000



Lancaster, Pennsylvania

Poa Free

CIRCLE #184

LIST RENTAL

GOLF COURSE NEWS

...now offers you the opportunity to reach the decision makers at thousands of golf facilities with an exclusive mailing list.
Call Simone Lewis for details.
(813) 576-7077

CIRCLE #185

SYNTHO-GLASS

PIPE REPAIR KIT



- * Stops Leaks!
- * Water Activated!
- * Sets in 30 Minutes!
- * No Mixing & Measuring!
- * Easy to Apply!
- * Use Directly from Package!

For more information call:
(800) 328-0090
NEPTUNE RESEARCH, INC.
FAX: 1-407-683-8366

CIRCLE #186

Fream on Europe

Continued from page 9

big maintenance cost courses are in operation. Attracting players to a big name course may only work for the first visit. Return players, or players willing to spend large sums on the greens fee, may become a decreasing occurrence, unfortunately for the developer or operator of the project. By this time the "name" or signature architect has been paid, but who is going to cover the mortgage payment or the on-going maintenance costs?

The golf architect and project master planners can help the developer or promoter realize financial and market targeting actions during conception of the project. Excesses in design, construction and maintenance of a golf course all deduct from the net profit. A golf architect who is aware of the financial realities of the project and incorporates financial realism into the planning, design, and construction and into their impact on long-term maintenance is helping to assure the long-term financial success of the project.

Regardless of present economic trauma, a growing standard of living will continue to fuel the need, or market, for golfing facilities throughout Europe and Scandinavia. While the economic reorganization going on in Eastern Europe will be a slow and tedious process, the former Eastern Bloc nations will recognize tourist trade as an excellent potential source of outside income and emerge as attractive locations for golf facilities. Russia and other of the former Soviet states will also evolve as potential locations for golf projects, once the industrial privatization and land ownership issues have been more completely clarified. The Mediterranean coast has considerable potential for expansion of golf facilities, so long as intelligent land use planning, environmental protection and pollution control become stronger factors in coastal development thought processes.

Long-term growth would appear to indicate "daily fee", open-to-the-public courses and resort destination projects as those with the most favorable prospects.

The success of existing and future golf courses in Europe will revolve around knowledgeable planning, creative and thoughtful design, quality construction and proper levels of turfgrass maintenance. The course may be called public daily-fee, country club, or resort, but the basic fundamentals for financial success remain the same.

Roberts on Gore

Continued from previous page

economics that will place a higher value on environmental quality. He identifies hidden costs that we overlook when calculating the true value of products and services. In a way, for generations, we have subsidized production to the detriment of natural resource sustainability and without adequate concern for the health and safety of society at many levels.

Gore and other authors who have written on earth science and civilization have given us much to think about.

November

1-3 — *Public Golf '92 for Public Golf Facility Managers in Oak Brook, Ill.* Contact Rebecca Quinlan, Golf Course News at 207-846-0600.

1-3 — *Georgia Golf Course Superintendents Association annual meeting on St. Simons Island.* Contact 404-769-4076.

1-4 — *International Irrigation Exposition and Technical Conference in New Orleans.* Contact 703-524-1200.

4-5 — *Annual Oklahoma Turfgrass Conference in Tulsa.* Contact Dennis Martin at 405-744-5419.

6 — *GCSAA spray technician training program in Portland, Ore. **

10 — *GCSAA spray technician training program in Midway, Pa. **

10-13 — *New York State Turfgrass Association annual Turf and Grounds Exposition in Rochester.* Contact 800-873-TURF.

12-14 — *Golf Course Europe '92 and International Golf Development and Investment Conference '92 in Monte Carlo.* Contact Charles Duff at 415-453-1184.

15-19 — *Professional Grounds Management Society Annual Conference in Indianapolis.* Contact 401-667-1833.

16 — *GCSAA spray technician training program in Myrtle Beach, S.C. **

16-19 — *Professional Lawn Care Ass'n of America 13th Annual Conference in Indianapolis.* Write PLCAA, 1000 Johnson Ferry Rd., NE Suite C-135, Marietta, Ga. 30068-2112.

19 — *GCSAA spray technician training program in Williamsburg, Va. **

29-Dec. 2 — *Canadian Turf Grass Convention and Trade Show in Halifax, Nova Scotia.* Contact Chuck Desveaux at 416-602-8873.

December

1 — *GCSAA spray technician training program in Grover, Mo. **

Continued on next page

Statement of Ownership


	12-month average	Sept. issue
A. Total # of copies		
B. Paid and/or Request Circ	25,045	24,700
1. Sales-dealer, carrier, vendor, counter	0	0
2. Paid and/or requested	17,534	18,096
C. Total paid and/or requested circ (Sum of B1 + B2)	17,534	18,096
D. Free dist. by mail, carrier & other means —		
Samples, complimentary, other free	6,591	5,950
E. Total distribution (Sum of C + D)	24,125	24,046
F. Copies not distributed		
1. Office, overs, spoiled copies	920	654
2. Return from news agents	0	0
G. Total issues (equals A) (Sum of E + F1 = F2)	25,045	24,700

Statement of ownership, management and circulation required by Title 39 United States Code, Section 3685 for Golf Course News ISSN 1054-0644, published 12 times a year by United Publications, Inc., 38 Lafayette St., Yarmouth, ME 04096. Publisher: Charles E. von Brecht. Editor: Hal Phillips. Managing Editor: Mark Leslie. Mailing address is P.O. Box 997, Yarmouth, ME 04096. The owners are Theodore E. Gordon, P.O. Box 997, Yarmouth, ME 04096 and J.G. Taliaferro, Jr., P.O. Box 997, Yarmouth, ME 04096. There are no bondholders, mortgages, or other security holders.

Architects and Builders

P.O. Box RR
Daniels, WV 25832

304-763-4573



Ronnie L. Adkins, CGCS
Vice President

General Construction/Property Management and Landscaping/
Golf Course Renovation and Construction

CIRCLE #154



Jed Azinger
Vice President

5455 Fruitville Road
Sarasota, FL 34232

(813) 378-9677 • Fax (813) 379-9940

CIRCLE #155



Billy Casper (PGA)
Greg H. Nash (ASGCA)
George Wright (Assoc.)

NASH & ASSOCIATES
The Golf Planning & Design Group

8611 N. Black Canyon Hwy., Suite 116, Phoenix, AZ 85021
602-864-0444 / Fax 602-938-8887

CIRCLE #156




JEFF HARSTINE
President

4516 E. Kinsey Road
Avon Park, Florida 33825

813/452-2215 • 800/422-1187 • FAX 813/452-5227

CIRCLE #157




Denis Griffiths and Associates, Inc.
Golf Course Architects • Landscape Architects

Denis Griffiths and Associates has provided golf course architectural services for over twenty years including completed projects located throughout the World. The firm offers comprehensive design services for new development and renovation projects from site selection and master planning to construction documents and construction administration.

Current projects include new courses in Georgia, Florida, California, Colorado, Japan, Thailand, Malaysia and Puerto Rico.

18 Golf Club Drive, Box 327, Braselton, Georgia 30517
Phone: (404) 867-4480, Fax: (404) 867-0102

CIRCLE #158



Dennis Haveman

16417 N. 54th Avenue
Glendale, AZ 85306
(602) 864-9069
Fax (602) 938-8887

CIRCLE #159




GOLF RESOURCES, INC.

Dallas-based Golf Resources is a full service golf course consulting company comprised of a diverse and talented group of professionals specializing in:

- *Golf Course Design and Renovation
- *Agronomic Consultation
- *Management of Golf Facilities
- *Marketing and Promotion

1503 LBJ Frwy., #256 Dallas, Texas 75234
Phone: 214/620-3402 Fax: 214/620-3403

CIRCLE #160



Ted McAnlis
Pretty Good Golf Course Design

Post Office Box 14724
North Palm Beach, Florida 33408
(407) 627-4513

CIRCLE #161

Architects and Builders

Continued from preceding page

1-3 — U.S. Dept. of Agriculture Outlook '93 Conference session on future of U.S. Green Industry. Contact 202-720-3050.

1-3 — New Jersey Turf Expo '92 in Garden State Convention and Exhibit Center in Somerset. Contact 908-932-9271.

2-3 — Pacific Coast Turf & Landscape Conference & Trade Show in Seattle. Contact Scott White at 800-275-9198.

2-4 — Rocky Mountain Regional Turfgrass Association Annual Conference and Show in Denver. Contact 303-688-3440.

7-10 — Ohio Turfgrass Conference & Show in Cincinnati. Contact 614-292-2601.

8 — GCSAA spray technician training program in Las Vegas, Nev.*

10 — GCSAA spray technician training program in Scottsdale, Ariz.*

10-11 — Desert Turfgrass and Landscape Conference and Show in Las Vegas. Contact 800-877-3107.

15 — GCSAA spray technician training program in Castle Rock, Colo.*

15-17 — Missouri Lawn & Turf Conference & Trade Show in Columbia. Contact 314-882-1953.

1993

January

4-16 — Mid-America Horticultural Trade Show in Chicago. Contact Donn Sanford at 708-526-2010.

5-7 — 63rd Annual Michigan Turfgrass Conference in Lansing. Contact 517-321-1660.

10 — GCSAA spray technician training program in Little Rock, Ark.*

11-15 — Cornell Cooperative Extension Turfgrass Short Course at Cornell University, Ithaca, N.Y. Contact Joann Gruttadauro at 607-255-1792.

12 — GCSAA spray technician training program in Galena, Ohio.*

21-31 — GCSAA International Conference and Show in Anaheim, Calif.*

February

3-5 — American Sod Producers Ass'n Midwinter Conference in New Orleans. Contact 708-705-9898.

3-5 — Mid-America Green Industry Convention in Kansas City, Mo. Contact Olivia Golden, PLCAMA, P.O. Box 35184, Kansas City, MO 64134.

8 — GCSAA spray technician training program in Dallas.*

10 — GCSAA spray technician training program in San Antonio, Texas.*

16 — GCSAA spray technician training program in San Marcos, Calif.*

23 — GCSAA spray technician training program in Atlanta.*

25 — GCSAA spray technician training program in Franklin, Tenn.*

27 — Golfcourse Info Days '93 in Munich. Contact 49 971 3024.

March

1-3 — Massachusetts Turf Conference and Industrial Show in Springfield. Contact 508-831-1225.

2 — GCSAA spray technician training program in Owings Mills, Md.*

4 — GCSAA spray technician training program in Aurora, Ill.*

15-21 — Pacific Rim Golf Course Conference and Show in Singapore. Contact 913-841-2240.

28 — Golf Asia '93 International Golf Exhibition & Conference in Singapore. Contact 65-2966961.

* — For more information or to register, contact the Golf Course Superintendents Association of America education office at 800-472-7878 or 913-841-2240.



MID-AMERICAN GOLF CONSTRUCTION, INC.

LARRY A. SMITH
President

5651 County Road 110
Fulton, MO 65251

Tel: (314) 642-4857
Fax: (314) 642-0581

CIRCLE #162

Nelson & Wright

GOLF COURSE ARCHITECTS

Designers of such fine courses as:

Mauna Lani, Hawaii
Bali Golf and Country Club, Bali
Kuala Lumpur Golf and Country Club, Malaysia

Honolulu Fax: (808) 537-9587
Singapore Fax: (65) 222-9602
Hong Kong Fax: (852) 520-0878
Sydney Fax: (61) 2-959-5802

CIRCLE #163



PAVELEC BROTHERS GOLF COURSE CONSTRUCTION CO., INC.

- ✓ New Construction
- ✓ Renovation
- ✓ Field Drainage Systems

TONY PAVELEC
(201) 667-1643
EMIL PAVELEC
(201) 939-6182

98 Evergreen Ave.
Nutley, NJ 07110

CIRCLE #164

JOHN J. PONKO

President



Ponko Construction Corp. Golf Course Construction

2304 Kenstock Drive, #103
Virginia Beach, VA 23454

Phone: (804) 486-7792
FAX: (804) 486-7986

CIRCLE #165

Sanford & Associates

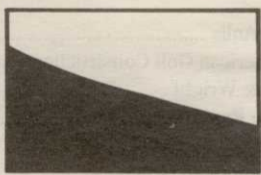
Golf Course Architects

- GOLF COURSE ARCHITECTURE
- LANDSCAPE ARCHITECTURE
- SITE PLANNING
- ENVIRONMENTAL IMPACT GRAPHICS

John S. Sanford, Jr., A.S.L.A.
President

1851 W. Indiantown Rd., Ste. 100, Jupiter, FL 33458
(407) 743-1897 • Fax (407) 743-1899

CIRCLE #167



Rees Jones
President

P.O. Box 285
55 South Park Street
Montclair, NJ 07042

Rees Jones, Inc.

GOLF COURSE DESIGN

201-744-4031
FAX 201-744-1044

CIRCLE #166



Golf Course Architecture
Landscape Architecture
Land Development Planning

Williams, Gill & Associates

421 North Main Street • River Falls, WI • 54022
Phone: (715) 425-9511 • Fax: (715) 425-2962

CIRCLE #168



P. B. DYE, Inc.

GOLF COURSE DESIGN

13857 Wellington Trace, Suite D-1
West Palm Beach, Florida 33414

(407) 790-6733
FAX (407) 795-0579

"Keep Your Head Down & Take It Back Slow"

CIRCLE #169

A keen eye identifies source of silt problem in Texas

A river rechanneled 30 years before was source of clay build-up at Brook Hollow GC

By MARK LESLIE

Little did members of Brook Hollow Golf Club know in the late 1950s that when the city of Dallas rechanneled Trinity River, it would cost them more than \$2.5 million in course reconstruction 30 years later.

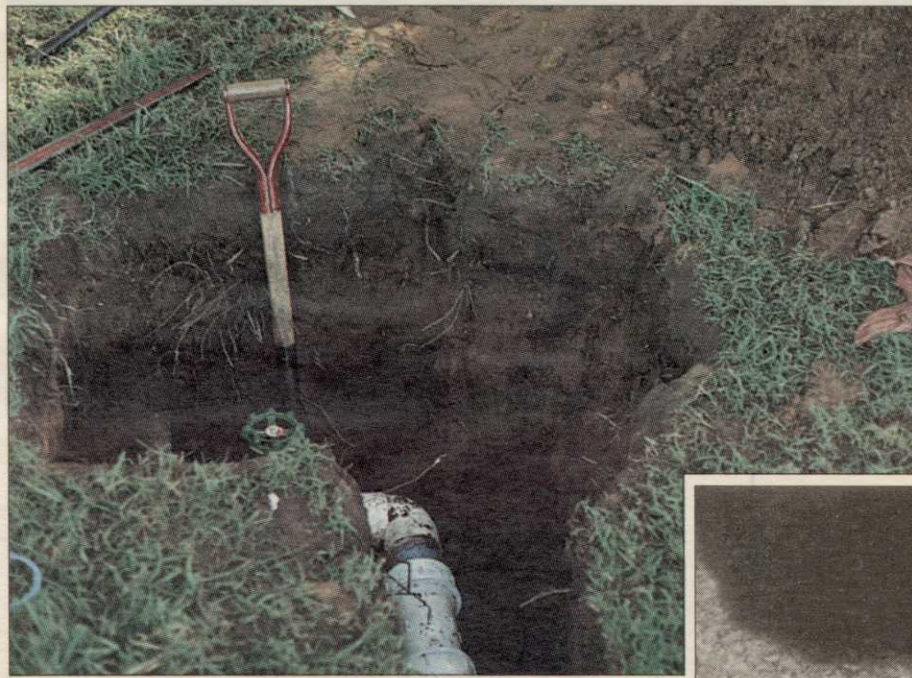
But that is the case, says Director of Grounds Bill Shrum.

When Shrum arrived at Brook Hollow from Denver Country Club in 1989, he found 2-1/2 inches of silt clay at the surface of his greens — only five years after all the greens had been rebuilt. That paled to the three to nine inches he found on the fairways of the A.W. Tillinghast-designed track.

And all this on a piece of property rare in the Dallas area. It is blessed with sandy soil. Yet that sandy soil is now far below a layer of silt clay that spells death to turf.

"The problems were evident the second month I was here," Shrum said. "Nothing was right. The rooting wasn't proper. I did two years worth of tests and research and looked underground. I used several labs and brought in Jim Moore [U.S. Golf Association Green Section Mid-Continent director], [Drs.] Joe Duich and Milt Engelke and others, who all confirmed my findings."

The culprit, all agreed, was the water source. When the city rechanneled the river in the late 1950s, the section of the river at the course was turned into a drainage sump. The situation worsened



Though the problem has been discovered at Brook Hollow Golf Club, the work has just begun. In photo above, one can see what 35 years of silt build-up can do to sandy soil. In photo at right, the ill-effects can be seen in the root zone of this seven-year-old green.

further when clay from nearby freeway construction in the late 1950s went into the riverbed. Consequently, future waterings contained undesirable large quantities of silt and clay to the point of sealing the original sandy surfaces.

After two years selling the idea of renovation to Brook Hollow Golf Club committees and one year selling it to the membership, Shrum is looking forward to having a healthy course.

Course reconstruction, from tee to green, was scheduled to begin Nov. 2.

With the reconstruction, which will shut the course down for 10 months, he is connecting the facility to a new five-acre lake contractors built as the clean water source.

A new pump station was equipped with both a floating intake and particle filters

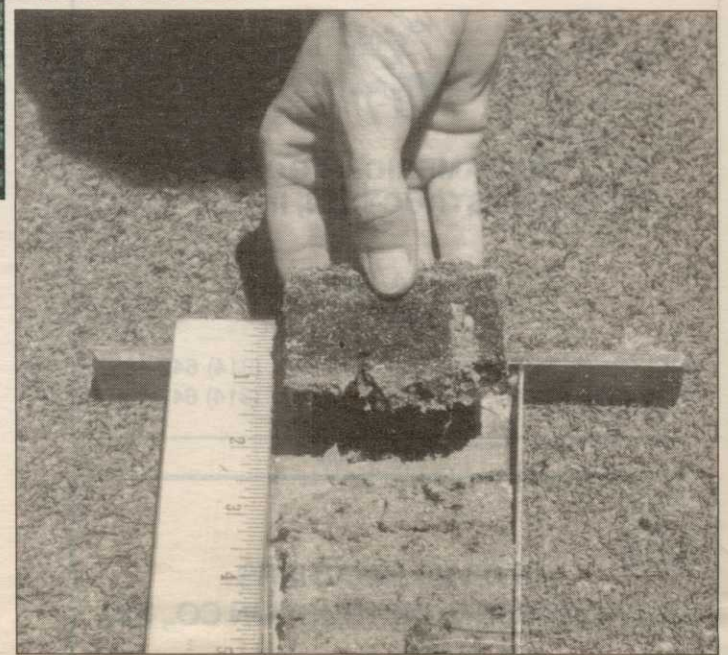
for additional protection.

The club has brought in architects Bill Coore and Ben Crenshaw and contractor Ed Connor of Golfforms. Coore and Crenshaw will design the shape of bunkers and greens, while Connor will strip the sod, contour the fairways, and laser-shoot the greens and tees.

Connor will strip off the top inches,

'The problems were evident the second month I was here. Nothing was right. The rooting wasn't proper. I did two years worth of tests and research and looked underground.'

— Bill Shrum, superintendent Brook Hollow Golf Club



chisel-plow 12 inches deep, and regrade for positive drainage physics. The club will then have a new irrigation system installed.

"We'll get the course working for us," Shrum said.

"Here's a guy," said the USGA's Moore, "whose alertness has saved his club's course and a lot more money."

UNIFORMS OF DISTINCTION



Custom embroidered & screened designs



SOUTHERN
CORPORATE PROMOTIONS

(404)487-8095

800-233-3853

559 06 5
29165

BUI

ADVERTISERS INDEX

RS#	Advertiser	Page	RS#	Advertiser	Page
113	The Andersons	20	161	Ted McAnlis	36
106	Aquatrols	12	162	Mid-American Golf Construction	37
154	Aspen Corp.	36	163	Nelson & Wright	37
155	Azinger Golf Course Design	36	186	Neptune Research	35
181	BioTherm Hydronics Inc.	35	110	NORAM Chemical Co.	16
123	Cartrol Div. of Invisible Fence	30	102	North American Green	3
156	Casper/Nash & Assoc.	36	103	O.M. Scott	4
157	Central Florida Turf	36	124	O.M. Scott	31
111	Club Car	17	151	Otterbine/Barebo	39
174	Continental Bridge	34	169	P.B.Dye, inc.	37
158	Denis Griffiths & Assoc.	36	122	Page Com	30
116	Dye Designs	24	114	Palmer Course Design	22
132	E-Z-GO	10	118	Par Aide	27
170	EcoPak	34	108	Partac Peat	13
117	Fox Lake Construction	26	164	Pavelec Bros. Construction	37
101	Fraser Golf Consultants	3	165	Ponko Construction Corp.	37
112	Golf Asia '93	18	120	Precision Small Engine	28
178	Golf Graphics	35	175	Precision Tool Prod. Co.	34
159	Golf Links Ltd.	36	180	Quail Valley Turf Farm	35
160	Golf Resources	36	166	Rees Jones, Inc.	37
143	Grace-Sierra	2	115	Ryerson Plastics	23
176	Greenscape Pump Services	34	167	Sanford & Assoc.	37
119	Hale Irwin Golf Services	28	126	Southern Corp. Promotions	38
172	Homotech Indus.	34	184	Sporting Valley Sod	35
107	Huber Ranch Sod Nursery	12	104	Standard Golf	5
183	Innovative Products	35	125	Standard Golf/Chix Towels	32
153	Jacobsen	40	109	Toro Comm'l. Prod. Div.	14-15
179	Jesco Products (Pinhigh)	34	121	Unit Structures	28
105	John Deere	6-7	177	Western Wood Structures	35
171	Lab Systems/Software	34	168	Williams, Gill & Assoc.	37
173	Master of the Links	34	182	Yard Edge	35

On a golf course a bad score should be the only thing that stinks.

Foul odors, algae and sludge in golf course ponds are enough to ruin anyone's game. The results of poor water management can be unsightly, smelly and costly.

Now Otterbine has developed CONCEPT₂, the new high-technology surface aerators that can revolutionize your approach to water quality management.

CONCEPT₂ High Volume aerators are built to last, made of stainless steel and tough, versatile thermoplastics, with a rugged, custom built motor and a virtually unbreakable stainless steel prop designed to handle large volumes of water.

And CONCEPT₂ offers almost unlimited versatility, with easily installed, totally interchangeable spray patterns.

SUNBURST₂ in Otterbine's CONCEPT₂ line answers the challenge of producing a sparkling water display with minimal effect on pumping rates.

CONCEPT₂ and SUNBURST₂, fulfill the Otterbine tradition of scientifically designed, highly efficient, compact, self-contained aeration systems. They are simple to install and economical to operate.

They need no foundation, external pumps, or other costly plumbing fixtures. All Otterbine Aerators are safety tested and approved by the Electrical Testing Laboratory.

Call or write, today, to find out how CONCEPT₂ can help you keep your water quality up to par.

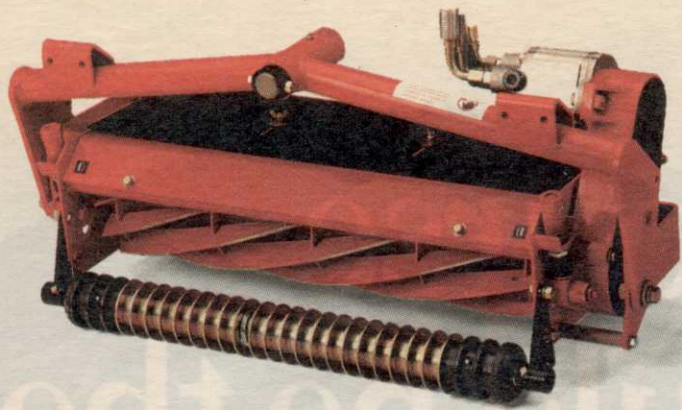
SUNBURST₂

CONCEPT₂ High Volume



Water works with Otterbine.

P.O. Box 217, Emmaus, Pennsylvania 18049 • (215) 965-6018



Finally, a quality lightweight with plenty of mowing muscle.

At less than 10 PSI ground pressure, the all-new Jacobsen LF-3810 treads lightly on the most delicate fairways. Yet its 5 heavy-duty

7" diameter, 10-blade reels deliver the high torque to handle all kinds of grasses and conditions beautifully. Plus, 26" balanced reels and our unique rear roller down pressure system produce tournament quality results at production mowing speeds, hugging undulations other machines would scalp.

Accessibility you'll flip over.

The entire operator platform and rear hood flip up, completely out of the way, for easy access to all key components. Also, the center cutting unit slides back, for quick, easy adjustments.

Comforting news for operators.

The LF-3810 is loaded with operator comfort features, including: full suspension seat with armrests; 5-position tilt, power steering; easier two-pedal hydrostatic drive; full instrumentation; even holders for their favorite soft drink and personal items.



Transverse engine mounting helps you handle

slopes with confidence.

This up-front automotive design produces surprising traction and excellent climbing ability in a 2-wheel drive unit.



BEAR COLLECTIBLES



Shown with optional roll over protection structure



Exclusive SynchroLift control—Cross cutting at its easiest & most productive.

A simple push or pull of the synchronized lift levers is all it takes with this system. The machine automatically raises the reels to turning height, then lowers them for nimble, flawless cross cutting.

Maintain a spotless reputation on the fairway with GreenSentry™

Our advanced oil leak detection system is standard, to give you every advantage possible on the fairway.



The list goes on and on.

Variable-speed, power backlapping; 3, 4 or 5 gang operation; heavy-duty hydraulic system; a 38 hp, liquid-cooled Kubota diesel . . . the quality features just never seem to quit.

For a complete list of features and benefits, as well as a complete demonstration, contact your Jacobsen distributor today.

THE PROFESSIONAL'S CHOICE ON TURF.

**JACOBSEN
TEXTRON**

Jacobsen Division of Textron, Inc.

CIRCLE #153

THE FIRST TRULY HEAVY-DUTY LIGHTWEIGHT.