GOLF COURSE

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

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SUPPLIER BUSINESS

GCSAA to conduct exclusive research

Withdraws funding slated for USGA

By MARK LESLIE

The Golf Course Superintendents Association of America has withdrawn financial support from United States Golf Association research program to

launch research projects of its own. The move was met with awe by some in the industry, but drew support from the USGA itself.

Jim Snow, national director of the USGA Green Section, said: "The GCSAA couldn't do its research without withdrawing funding from our program. They

didn't pull out leaving us in the lurch... It wasn't a total surprise to me. They've expressed interest in doing some of these things for some time."

Saying that "in the end it won't affect what we do," Snow added: "In reality, more work will get done. I'm anxious to see the results of their work. We need all

the information we can get." USGA President Stuart Bloch said that although he did not like losing the funding, "I think it will work out Continued on page 20

Environmental liability at issue on finance front

By PETER BLAIS

Fleet Financial Group Inc. recently became the first major bank in the country to require nearly **all** major commercial real estate lenders to obtain environmental liability insurance before getting a loan, a move likely to be followed by other financial institutions that could add thousands of dollars to the cost of a golf course development.

The Providence, R.I.based firm instituted the new policy for any loan of \$1 million or more to protect the bank from having to clean up pollution on foreclosed properties.

The bank estimates a standard, \$2 million policy will cost \$10,000 to \$15,000 with a \$10,000 deductible

for three years of coverage. After the initial period, the policy must be renewed annually as long as the loan is in effect.

Lenders have required such insurance on occasional golf projects in the **Continued on page 33**



Ryegrass Update see special section Pages 21-26 tion

THE HEAVY-HANDED APPROACH?

A maintenance crewman at Burning Tree Country Club in Greenwich, Conn., takes a jackhammer to the 15th green. Why? Turn to page 54 for answers in this month's edition of On the Green.

Ransomes America working to sort out consumer confusion



'Our goal is to have a corporate brand identity by the 1993 GCSAA Show in Anaheim.' — Irv Aal, president Ransomes America

By HAL PHILLIPS MINNEAPOLIS—Different names, different colors, different sets of distributors, different di-

rections. Cushman Inc., Steiner Turf Equipment and Brouwer Turf Equipment have all come under the Ransomes America Corp. umbrella since 1988. Not surprisingly, the last four years have brought a measure of consumer confusion in terms of name recognition and distribution logistics.

Yet when members of the golf course industry meet in Anaheim this winter, Ransomes hopes to **Continued on page 45**

Course owners explore the intricacies of group buying

By HAL PHILLIPS The National Golf Course Owners Association (NGCOA) is implementing a cost-saving measure that management companies have employed for some time: Group purchasing.

Buying in bulk can save thousands of dollars in a single fiscal year, provided the management firm or association has enough member clubs to make the volume purchase worth executing.

However, the single biggest obstacle to group purchasing may be good ol'

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CIRCLE #143

NEWS IN BRIEF

EDINA, Minn. — The City Council approved expansion of city-owned Braemar Golf Course after receiving conditional approval from the U.S. Army Corps of Engineers. The city must fill 4.9 acres of wetland between the current golf course and Interstate Highway 494 for new fairways to accommodate increased play.

...

HOMOSASSA, Fla. — Michael Cook of Brandon faces two counts of unlawful killing of migratory birds by improperly applying the pesticide Nemacur 3 on June 10, 1991, at Sugarmills Woods Golf & Country Club here. Florida Game and Freshwater Commission officers claim an unknown number of woodpeckers and squirrels died as a result of Cook's action.

ELYRIA, Ohio — Dan D. Smith seeks more than \$25,000 in compensation for foot and ankle injuries suffered July 14, 1990, when he leaped to avoid a car driven by foursome mate Chad Dubin at Sweetbriar Country Club. Smith said the golf club was at fault because an employee saw the foursome drinking but didn't stop them. Club rules prohibit drinking alcoholic beverages on the course. Smith also claims Dubin should have undergone a sobriety test to determine cart control capability.

PORTLAND, Ore. — Portland Golf Club has been fined \$3,000 for discharging sediment and wastewater into Fanno Creek without a permit. The Department of Environmental Quality (DEQ) said the discharge occurred daily from March 16-19, 1992, during an operation to dredge a lake on club property. DEQ estimated at least 2.08 million gallons of the sediment-contaminated wastewater reached Fanno Creek. The creek was dark gray. Several fish surfaced for air and exhibited signs of distress, according to DEQ spokesman Ed Sale.

Golf Summit set for Oct. 21-23

JUPITER, Fla. — Golf Summit '92, the fourth in a series of biennial leadership conferences hosted by the National Golf Foundation, will be held Oct. 21-23 at the Marriott's World Center in Orlando, Fla.

"As in the past," said NGF President and Chief Executive Officer Joe Beditz, "the summit will provide members of the industry the opportunity to step back and objectively examine the state of the game and business of golf ... and to help determine what can be done, both collaboratively and individually, to enhance the growth and vitality of the game."

This year's Summit program will focus on four major issues within the areas of

NGF commissions environmental study

JUPITER, Fla. — The impact of environmental regulation and legislation on the cost of developing and operating golf facilities will be assessed by the National Golf Foundation in response to numerous golf industry inquiries.

Possible industry actions could follow this analysis.

Areas of concern would include use of pesticides and fertilizers and their effects on environment, water use, wetlands preservation, underground storage tanks, endangered species, preservation of wildlife and loss of "natural" land.

Questions to be asked by the consultant firm of Vinson & Elkins include:

(1) Which environmental concerns/issues do you consider an existing or potential threat to your industry or business?

(2) How do they affect you?(3) Which ones are the most important/

critical to you? (4) What would you suggest be done

(organizationally and/or individually) that is not being done now? The findings of the study will be pre-

sented at the Golf Summit in Orlando in October.

facility and player development. Among them:

• GOLF AND THE ENVIRONMENT — This session will spotlight, among other things, the actions being talken to lessen the impact of environmental regulations on new and existing golf facilities. It also will take a look at what new initiatives are needed.

Some of the answers will be forthcoming in a special study on golf and the environment that was commissioned earlier this year by the NGF (see story below). The results of this study will be presented and discussed as part of this session.

• NEW DIRECTIONS IN GOLF COURSE DEVELOPMENT — There is every indication that real estate will no longer be driving as much of the nation's new golf course construction as it has in the past.

Summit '92 participants will be asked to focus on the question of what should be driving golf course construction in the years ahead and what can be done to stimu-Continued on page 7

Developer takes approval process to the people

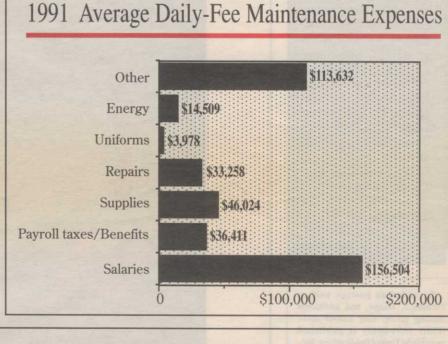
HALF MOON BAY, Calif. — Local ranch owner Marvin Wong may have devised an easier way to solicit development approval.

A measure allowing him to develop a golf course, hotel and homes on his 862-acre property will appear on the November ballot.

If supported, the ballot option would provide a swift and cheap answer to bureaucratic largesse.

The ballot question asks voters to approve a "proposed mixed-use development containing one or more golf courses ..."

If approved, no further voter approval would be required for the proposed development unless it involves onshore or off-shore oil.



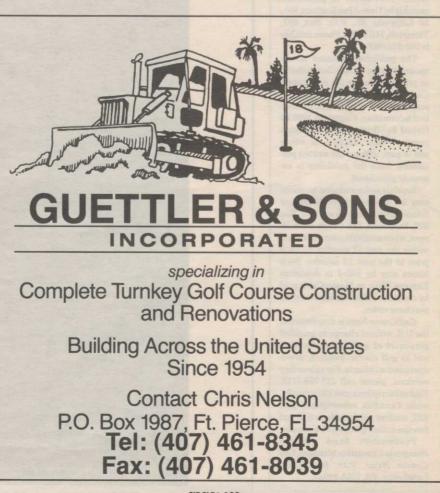
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NEWS

Troubled course reopens despite flagging sales on home front

IPSWICH, Mass. — When Ipswich Country Club and its remaining homesites were reclaimed by the banks in October of 1990, many believed the doors of the Robert Trent Jones-designed course would never reopen.

However, the course — set amid 350 acres of white pine and hardwood north of Boston — is alive and well.

The turnabout came when the club and course were purchased for \$5.8 million by Ipswich Joint Venture 1 Limited Partnership, headed by Spencer Alpert, Hans E.R. Bosch and Jefry Rosmarin, principals of the group.

The three New Yorkbased investors have extensive backgrounds in real estate, country club development and management.

The club is open again and accepting memberships, which the banks are hoping will fuel interest in the 67 homesites still available.

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Real-estate-based developers still paying the price

In South Carolina, slower home sales have driven residential developers to sell the amenities they once counted on to hasten land sales and raise prices — their golf courses.

Nationwide, at least 10 percent of 2,600 residential developments centered on golf courses are in some sort of financial distress because of a lack of sales. And perhaps hundreds have sold — or are quietly trying to sell — their courses, either to free up cash or to get out of the flagging realestate-related golf business .

"They're sick of it and want to get rid of it," Craig

Price told the *New York Times* News Service. Price is executive vice president of American Golf Corp. "We're talking with one developer in Chicago who thinks golf is dumbest thing

he's ever seen, but he's got all these experts telling him to put in

a course.

"Now the project is 100 percent over budget and he's not selling anything."

Many of the distressed golf course developments are the South, particularly in Florida and the Carolinas, where nearly three-fourths of all courses built in the last few years were con-

ceived as fixtures for housing developments. It's difficult to ascertain precisely how many courses in South Carolina are for sale since developers or their lenders are reluctant to advertise their problems.

"This is a very quiet network," according to Ricky Bell, a golf course-real estate analyst basted in Winston-Salem, N.C.

Bell added that Myrtle Beach continues to thrive. More than 60 courses have been constructed there since 1980, but very few with housing developments.



Sierra Club kills muni expansion

PALM SPRINGS, Calif. — Reported Sierra Club opposition, coupled with earlier objections from golfers and horse owners, led the local Planning Commision to defer action on plans to expand the 18-hole municipal golf course and move the Las Palmas Equestrian Center.

The environmental groups sought to delay commission action on the \$14 million plan which would add 18 holes to the municipal course, add water and sand hazards to the existing course, and move the equestrian center to a city-owned site at Mesquite Avenue and Vella Road.

The Sierra Club in 1990 blocked the city from letting a developer build a two-hotel, 900-home resort in the undeveloped Palm Hills. It also sued to stop a developer's \$960 million plan for a posh resort in the Palm Canyon area south of Murray Canyon Drive.

Golfers objected to paying higher fees to underwrite the expansion.

Course slated for ex-smelting site

ANACONDA. Mont. — The local Old Works smelting site may become a golf course.

The Atlantic Richfield Co. (ARCO) Superfund has a \$1 million contract with the design firm of golf pro Jack Nicklaus, Golden Bear, Inc. Half will be for conceptual design and engineering, half for construction oversight for a "world class" course. A golf course is considered a reasonable land use for the site, once wastes either are removed or "capped."

Course completion probably will be in 1996. The course's design will incorporate an interpretive walking tour of historical features associated with the Old Works smelting site.



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Insects invade Coachella Valley; superintendents fighting back

SAN DIEGO. Calif. — Bug off, atenias.

The 84 golf courses in the Coachella Valley have been under attack by these insects who have been feasting on the roots of grass plants.

"It's tough enough to grow grass in 100-degree weather," noted Ross O'Fee, course superintendent at The Springs Club, "without being under underground attack."

The Hi-Lo Desert Golf Superintendents Association, of which O'Fee is immediate past president, recently struck back with a fund-raising golf tournament at The Springs earmarked for turf grass research and aimed at atenias.

The tournament realized \$20,000. Greens chairmen, club presidents, club pros and other participants took many a hearty swing at a vexing problem while enjoying the day.

Pros to pay for improvements at Indy courses?

INDIANAPOLIS — The Indianapolis Department of Parks and Recreation, seeking \$3.3 the next three years for improvements on its 12 municipal golf courses, is concentrating its search on the pocketbooks of course professionals.

Contracts with the dozen professionals, paid \$3,000 a year, expire Dec. 31.

Proceeds from pro shop operations, cart fees, lessons and concessions supplement the pros' salaries.

The city plans to renegotiate with the professionals or, as the city terms it, create an enterprise fund. Whatever the terminology, the course professionals will likely be the poorer, but the city may realize much of the \$1.2 million for improvements needed this year.

Indiana DEM reorganizes

The Indiana Department of Environmental Management has reorganized its enforcement efforts into a single office.

Air, water and waste management programs now are under one IDEM umbrella.

Said director Kathryn Watson: "This multimedia approach recognizes that different types of pollution violations can occur at a given site, that they may be interrelated, and they should be corrected at one time."

Judge sides with McLoughlin in libel suit against GCSAA

'The most business (-like) and professional way to approach this thing is (to say) that we reached an amicable settlement and just let go.'

> - GCSAA attorney **Robert Ochs**

By MARK LESLIE

A U.S. District Court judge reinforced wrongdoing on the part of the Golf Course Superintendents Association of America but reduced the \$1.45 million judgment by half in the longstanding civil action brought by ex-GCSAA Executive Director Jim McLoughlin.

The jury a year ago had awarded McLoughlin \$457,742 on his breach-of-contract claim, \$500,000 in compensatory damages on his

libel claim and \$500,000 in punitive damages. But Judge Richard D. Rogers dropped the compen-

satory and punitive damages to \$100,000 apiece, stating that the jury finding was excessive.

It was left to McLoughlin to accept the reduced amount or

ask that a new trial be ordered. The first trial lasted 30 days, and McLoughlin opted to end the ordeal and the added expense of a new court proceeding. McLoughlin attorney Dennis

Egan of Kansas City said: "While the judge in his conser-

vative wisdom felt it necessary to reduce the amount of the jury's verdict, we are very pleased that (he) totally reaf-firmed all the jury's find-

ings of wrongdoing and libelous actions that were the basis for filing the lawsuit in 1985 and the basis for the jury's historic

\$1,457,000 verdict.

"The judge's decision and jury's verdict only work in concert to fully exonerate (McLoughlin) of the numerous false charges directed toward him during his tenure as GCSAA executive director for the period 1980-83.

GCSAA attorney Robert Ochs said: "The most business(-like) and professional way to approach this thing is (to say) that we reached an amicable settlement Continued on page 37

DEERE

GCSAA Update

Pacific Rim office opens in Singapore

SINGAPORE — The Golf Course Superintendents Association of America has opened an extension office here in an effort to share technical expertise with Japan and other nations around the Pacific Rim.

The GCSAA will sponsor a Pacific Rim Golf Course Conference and Trade Show March 15-1993, also in Singapore.

Staff members in the overseas office include Don Bretthauer, manager of Pacific operations, and Linda Fortunato, international conference and show manager. They can be contacted by phone at 65-568-2224; by fax at 65-568-2473; or by writing to GCSAA (Singapore), Pte. Ltd., 2 Jurong East Street 21, #04-21C, IMM Building, Singapore, 2260.

Four seminars offered this year

LAWRENCE, Kan. -The Golf Course Superintendents of America will host four three-day executive development seminars this season.

The first, "Technical **Business Management** Strategies and the Legal Aspects in Golf Course Management," is due here Oct. 12-14.

"Technical Training for Your Spray Technician," a series of GCSAA training programs for golf course maintenance crew members in 1992 and 1993," will be offered at 30 locations within the United States.

Some big names have already started arriving for the 1992 PGA

Hosting one of golf's four major championships is a huge job. Just ask Superintendent Tom Van De Walle of St. Louis' Bellerive Country Club-site of the 1992 PGA Championship.

"I came here in 1986 with the major responsibility of getting Bellerive ready for the PGA," says Van De Walle. Six years sounds like a lot of time, but we've rebuilt greens, tees, bunkers, fairways-even redesigned some holes entirely-and we still have a lot left to do.

"John Deere has played a big role in our success. We mow greens with the John Deere 22s, fairways with a 5-reel 3325 Turf Mower and tees and intermediate rough with a 3-reel 856 Reel Mounted Mower. The condition of the course has improved dramatically since we started using these mowers.

"We've converted almost all our fairways and tees to zoysia - a grass that's great to play on but tough to mow. The John Deere 3325 and 856 are the only mowers we've found that can handle it. Their cutting units stay true and don't let the turf get puffy. Plus, the single lever lift on the 3325 improves our fairways by allowing us to cross-cut more easily. In fact, the 3325 has done so well, we plan to buy another one next year."

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Tribe supports course project

COEUR d'ALENE, Idaho — An 18-hole golf course would be a feature of a multimilliondollar waterfront resort complex the Coeur d'Alene Tribe hopes to build on its reservation by 1993. The favored site would be on the south end of Lake Coeur d'Alene. The local tribe is one of about 150 seeking socioeconomic development grants from the Administration for Native Americans.

N.Y. developer toes the line

GORHAM, N. Y. — Developer Douglas Negley made a public apology for tardiness in hiring an engineer for his proposed \$500,000 100-acre golf course, but some who attended a recent public hearing were more concerned that Robert Topping, the man Negley hired, was absent.

Topping reportedly required another week to flesh out the course application. Environmentalist Barbara Fouquet worried that rain would speed erosion.

Work on the 18-hole course had

been underway for over a year before Negley sought permission from the town's planning and zoning boards and the state Dept. of Environmental Conservation.

The town halted work last year, charged Negley with breaking a local erosion law, and gave him six months to hire an engineer and bring his plans up to code.

Board members want to ensure that a a 15-foot high earthen dike near Fisher gully and a pond wich would serve as the course's irrigation reservoir would not burst.

Golf Course Europe gains momentum

MONTE CARLO, Monaco— Palmer Course Design Co., Jack Nicklaus Golf Services, Buckner Europe, Globe Golf A.G., Kato International Design and The Toro Co. have all committed to Golf Course Europe Nov. 12-14, in Monte Carlo.

Coupled with the International Golf Development and Investment Conference for the first time, Golf Course Europe will feature golf industry authorities who will provide developers and owners with an insight into developing golf courses, obtaining investor financing, marketing club memberships, and tapping into the Asia-Pacific golf tourism boom.

Other conference topics include the opportunities presented by the unification of Europe and the opening of Eastern Europe. For more information contact Charles Duff at 415-453-1184.

Agenda issued for Golf Summit '92

Continued from page 3

late responsible development, while meeting the need for affordable and more user-friendly golf courses.

• PLAYER RETENTION — Driving this session is the fact that, although some 11 million people have tried it ... most of these have remained only occasional golfers.

In addition to learning what new initiatives are underway to improve this retention rate, Summit '92 participants also will be asked to help identify other actions which both organizations and individuals can take to nurture beginners and to encourage more occasional golfers to play more frequently.

• ACCESSIBILITY — Since 1990, there has been a growing appreciation for the fact that this issue involves not only minorities, but women, juniors and the disabled as well.

Summit'92 will ask participants to look at the progress that's been made in this issue area and help determine what more can and should be done.

Golf Summit '92 also will examine the progress made on the industry's Strategic Plan for the Growth of Golf prepared for industry review and action by the NGF and introduced in 1988.

The plan, which sets forth a portfolio of strategies and action plans for maximizing the game's potential for growth, will be reexamined and updated in light of current trends in golf participation and new golf course development.

This year's meeting will be structured for audience participation. There will be breakout sessions as well as ample time reserved for questions and answers in the general sessions.

Summit '92 begins Oct. 21. Events for that day include a golf tournament and the opening reception. The general sessions will take place over the next two days. A reception and awards banquet is scheduled for the evening of Oct. 22, at which the recipients of NGF's 1992 Graffis and Family Golf awards will be honored.

For more information or to register, call NGF's Summit '92 office at (407) 744-6006.



NEWS

Putting course debuts in San Diego

SAN DIEGO, Calif. — They're popping up all over the country. In Japan, they're an innovative solution to a lack of land. Now, the San Diego Princess Resort in Mission Bay has joined a growing list of resorts by premiering its new 18-hole, architect-designed, putting course.

"The course is professionally landscaped with cactus and other indigenous plantings," said Richard Kannapell, director of marketing for the Princess. "The course offers fairways, rough, bunkers and many of the challenges of a regular 18-hole course, but can be played in about one fourth the time of a standard game."

The course was designed by David Norman Fleming, president of Golf Properties Management, Inc. Fleming has worked on many California golf courses, including Singing Hills Country Club and the Rancho California Golf Club. He has served as construction consultant to such architects as Tom Fazio, Robert Trent Jones Sr., Ted Robinson and Joe B. Williams.

Course at heart of N.C. land battle

RALEIGH, N.C. - The Council of State will meet in July to decide whether to close the Riverside Golf Course near Pembroke. The course is on property the state bought in 1984 for the site of an Indian Cultural Center. Instead, Riverside arose.

Now a board developing the center again has requested the course be closed, claiming that because of floodplains and other environmental concerns, there is not enough land at the site to support both the golf course and the center.

Legislation may be required to keep the golf course open because the General Assembly bought the land for the specific purpose of building a cultural center.

Bay area course plans dealt blow

REDWOOD CITY, Calif. - A renewed campaign to build a golf course on the southern watershed again has met strong resistance from San Francisco supervisor Bill Maher.

'San Francisco takes seriously its role as steward of the water supply of 2 million people. Efforts to develop the watershed San Francisco owns are misguided," Maher declared.

Golfers have asked that a ballot measure be prepared for November, asking voter sentiment on use of Edgewood County Park for a course

Private CC may turn public

GREENWOOD, Ind.-Making a private country club public has raised concern among some homeowners near the Royal Oaks Country Club, They fear a public facility might bring large numbers of people and devalue the land. Said William Crooks, who lives in El Dorado II subdi-

vision, "This is a reasonably

quiet neighborhood and would not be if a public golf course were down the street."

Indianapolis businessman James O'Connor wants to buy the 425-member club, which lost\$65,000 lastyear, then lease it to Johnson County. The public would be charged to play golf. The club would become county property at the end of a 25-year lease.

Guettler ahead of schedule

VER0 BEACH, Fla. - Much verbal swinging remains as Prince Contracting Co. disputes Guettler & Sons being awarded the contract to build a second 18 holes at Sandridge Golf Course. However, the reality is that the timetable for playing readiness has been moved up to late December.

"We're a month ahead of schedule," exults golf director Bob Komarinetz. Rough shaping of the courses is about three-fourths complete, and irrigation systems are being installed.

Because the project is eight percent under budget, the county was able to add \$7,500 to its contract with Guettler to enlarge the practice tee and construct a 5,000 square foot nursery green with a sand trap, and also add \$16,214 to its contract with Barth Construction. Barth is constructing the clubhouse.

Sandridge's regular 18 continues to get heavy play, about 60,000 rounds this year.

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According to Hawaiian super

Water costs ground airport project

SANTA MARIA, Calif. — The Santa Maria Airport District's proposal to develop a light industrial park with a 36-hole golf course has been grounded because of water problems.

Cost of 728 acre-feet of state water (one acre-foot equals 325,851 gallons) would be \$2 million initially, and about \$350,000 in annual payments. Airport directors termed state water too expensive.

The city declined.

golf course.

fly.

Airport officials thought this

city should foot the bill for state

water, since the city has been

negotiating to lease the airport

The airport board is looking

for other sources of water. A

storm-water retention project

is a possibility. Until the water

snag is solved, the project won't

'Golf's good for the atmosphere'

HILO, Hawaii — "Growing turf grass may not be the solution to global warming, but that type grass has a great potential to absorb carbon dioxide."

That was the message from Mauna Kea Beach Hotel golf course superintendent Bob Itamoto to the County Council Planning Comittee.

People do not perceive golf courses to be beneficial for open green spaces, as they once did, Itamoto added.

Controversy surrounding golf courses and contamination of underground and near-shore waters has not helped, said Neil Bustamonte, Mauna Lani Resort course manager.

The days of 100- to 150-acre courses are dwindling. The growing cost of maintaining the courses will contribute to the size reduction of golf courses, Itamoto said.

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Landscapes Unlimited a party in contract suit

"Promises, Promises." Shavertown, Pa., excavator Anthony R. Popple has filed a federal lawsuit alleging the contractor for the proposed Glenmaura National Golf Course in Moosic promised to use him as a subcontractor but gave the work to a competitor. Popple seeks in excess of \$50,000 damages from Landscapes Unlimited.

The suit alleges "the promises and conduct" of Landscapes Unlimited induced Popple to incur outof-pocket expenses and suffer loss of profits.

Conference center, 36 holes planned for Vernon, N.J.

VERNON, N.J. — Project plans for "Evergreen at Great Gorge," featuring two 18-hole golf courses and a \$3 million clubhouse atop Hamburg Mountain, have been submitted to the Vernon Planning Board Office.

A 400-room conference-center hotel also is part of the project.

Water for irrigation would be obtained from seven ponds at the top of the mountain. Pest control on the golf courses would include both use of pesticides and biological control of insects and would be through "organic" golf course maintenance.

Endangered and threatened species have been sighted near the project site, but developers say the golf courses and hotel can be built without serious detriment to the environment.

Strong opposition to Ooma II complex emerges in Kona

KONA, Hawaii — An 18-hole golf course would be part of an Ooma II development in North Kona where a 550-room hotel, 50room Japanese style inn, 300 single and multi-family house lots, seven-acre swimming lagoon and a commercial area are planned. But strong opposition has surfaced.

At a state Land Use Commission hearing, state Rep. Mike O'Kieffe accused Ooma II developer Kahala Capital Corporation of seeking land-use approvals so the land could be sold at a profit.

The project application is similar to one rejected by the LUC in 1987 because of concerns over its effect on near-shore waters.

Dwindling research funds force firms' hands

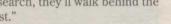
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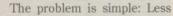
Cutbacks in federal funding have colleges across the country scrambling to preserve programs that once seemed a matter of course, so to speak. With the recession showing lukewarm signs of dissipation, a restoration of federal university support appears unlikely.

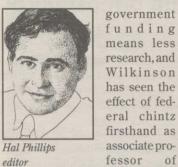
What does this mean to the golf industry? Plenty.

The wise allocation of research dollars is now a tougher prospect, as large university facilities struggle to fund experimentation that, until recently, may have been taken for granted.

"We're basically limited by the amount of research money we have coming in from the outside," said Dr. Hank Wilkinson of the University of Illinois. "If companies don't come up with their own research, they'll walk behind the best."







turfgrass research in the Department of Plant Pathology/Agronomy.

editor

At a recent industry function held at Jacklin Seed Co. in Post Falls, Idaho, Wilkinson addressed a crowd of seed folks outside the Jacklin research laboratory and greenhouse.

"I can tell you right now that we don't have a greenhouse anywhere near this good at the University of Illinois," he said with a hint of admiration and melancholy.

......

The message was clear: Don't count on academia to provide the amount of research it has in the past. If the golf industry is to move forward industry members must take the research lead, because colleges and universities simply can't afford it any longer.

Yet it's not quite that simple. With money at more of a premium, research will follow the dollars. In other words, cash-strapped research facilities will be more likely to conduct special interest testing at the behest of, say, Company X.

The problem is this: The interest of Company X might not be that of the state, country or even the industry," said Wilkinson. "It's a real dangerous pitfall.'

The way Wilkinson sees it, there are three kinds of research:

1) Practical research, which solves a problem.

2) Demonstrative research, which proves a point.



Dr. Hank Wilkinson and his wife, Tess, at Jacklin Seed Co. in June.

And 3) Futuristic research, which focuses on "the cutting edge" rather than "the practical." "Companies are far more likely,

at this point, to fund 1) and 2) -Continued on page 36



even

People in the golf industry are glad to point out during times of recession that golf is recessionproof - or at least recession-resistant. Golf play goes up when employment rates go down.

But is the golf industry insulated from insanity? Before dismissing this question, out of hand, take a closer look.

We are living in what I call a "society of bizarrity." (I know that isn't a word, but it is based on the word "bizarre," so please hang in there with me.)

Recall the aftermath of the verdict setting free the police offic-

To the editor:

I read with great interest your article "Backers, skeptics assess mesh-grid technology" (Vol 4, Number 6, June 1992).

As the developers of the mesh element system referred to in your article we are extremely pleased that you have brought the concept to the attention of your readers.

On balance, the article gave a fair coverage of the potential benefits of the system, which we refer to as the Netlon Advanced Turf system.

We are, however, concerned that you have attempted to achieve "balance" in the article by countering the positive statements made by Mr. Sifers with the more sceptical" comments of your editorial adviser, Mr. Hurdzan.

Whilst we have no objections to this approach, we feel that the overall effect was to create the impression that both Mr. Sifers and Mr. Hurdzan were giving their opinions on the system. Indeed, your sub-heading "Opinions differ on capabilities of mesh reinforcement technology" reinforced this impression.

10 August 1992

anyone's imagination. But their businesses got trashed. I thought, Those rioters really Letters The important difference between Mr. Sifers' comments and those of Mr. Hurdzan is that whilst Mr. Hurdzan was quite reasonably providing his opinions, Mr. Sifers was responding to direct questions by providing factual statements on the major research

geles had to do with the acquittal

of the policemen was beyond

program conducted at Texas A&M University from 1985 to date (i.e. seven years!).

When Mr. Sifers stated that moisture content in the mesh elements rootzone was always slightly higher than in an equivalent non-mesh rootzone, he was referring to extensive studies undertaken over a twoyear period.

Measurements were taken at four seasonal periods, at three soil depths on a large number of randomly arranged trial plots. The increased soil moisture content is, therefore, a fact and not a "claim" as stated in your quote from Mr. Hurdzan.

In a similar way, statements regarding reduced divot size and enhanced recovery rates due to the mesh elements inclusion are also based on extensive research data.

ers accused need a reason to vent their anger. of beating Any cause for a riot. But then along came an inci-

dent in Boston. People giving a free concert had to close the doors when the auditorium filled up. Soo-o, what else could we expect from those poor abused people left outside but to riot?

That riot set the record straight: In today's world people do not need any real reason to riot. Makebelieve reasons will do.

And that's when I started pondering the golf industry's insulation - or lack thereof - against insanity in a society of bizarrity.

When Dr. Beard stated in the

abstract of his paper to the GCSAA

conference that "mesh element

inclusion in high sand rootzones

substantially reduced divot width

and length" and that "recovery of

the divot openings was more than

twice as rapid," he was summariz-

ing the factual observations ob-

tained from five major field plot

investigations conducted since

1985 and three ongoing studies.

That is not an "opinion" but a rea-

his scepticism to a certain extent

by his statement that "if this stuff

is so great, why haven't people

That is a very fair comment.

very long history, we have chosen

not to promote the system in the

U.S. until we had adequate re-

search data to confirm the

product's benefits. There have

been a small number of installa-

tions in the U.S. during this time,

including the Santa Anita race-

track project mentioned in your

These have arisen as a result of

Finally, Mr. Hurdzan justified

soned scientific observation.

The answer is very simple. As a reputable company w

started using it?"

article.

I remembered the Indian tribe in Quebec which armed its members with rifles and took over a golf course. They piled cars into a barricade to keep people out and held off Mounties and other authorities for weeks. That golf course certainly was not insulated from bizarrity.

A Maryland architect, Davis Love, told me of a golf course project which drew out environmentalists in force. They didn't want the course built, they said, because it would infringe on the wildlife. Yet, a couple of miles Continued on page 36

clients approaching us directly, having learned of the success of the system elsewhere.

The reason Mr. Hurdzan has not seen people use the system is that until this year, we have not been promoting the system in the U.S.

We are currently in the process of assembling a network of distributors to cover North America. The first of these have now been appointed.

Texas A&M University is due to publish a Research Bulletin later this year which will summarize the research carried out on mesh elements to date.

We shall be pleased to forward a copy to you when available. Perhaps you could report in detail on the major research findings as a follow-up to the article in question.

Once again, we thank you for introducing this topic to your readers.

> Kind regards, Tim Oliver International manager Netlon Advanced Turf Systems



Publisher Charles E. von Brecht

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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 Marstiller

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

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Better specific and in-depth evaluations needed in national tests

By KEVIN MORRIS

The National Turfgrass Evaluation Program (NTEP), a cooperative program between the U.S. Department of Agriculture (USDA) in Beltsville, Md., and the National Turfgrass Federation, Inc., was initiated in 1980 to evaluate turfgrass varieties and experimental selections in different locations and under various management situations throughout the United States and somewhat in Canada.

Since that first test of Kentucky bluegrass in 1980, almost all the major turfgrass species have been tested or are currently being tested. At present more than 550 cultivators



lectionsare included in 12 separate NTEP tests at anywhere from 15 to 50 locations nationwide

and experimental se-

These tests are conducted mainly at university sites by university turfgrass scientists

using a standard format for data collection and submission. Data is summarized annually and released as public information. Interpretation of the data is left to turfgrass scientist, extension personnel, seed companies

and consumers.

Many of the turfgrass species have benefitted from these nationwide evaluations. Perennial ryegrass probably has been improved more over the last decade than any other grass used in the United States. Saturn perennial ryegrass, ranked number one for turfgrass quality in testing from 1987-1990, Continued on page 24

Kevin Morris is director of the National Turfgrass Evaluation Program, sponsored by the National Turfgrass Federation, Inc. and the U.S. Department of Agriculture and headquartered in Beltsville, Md.

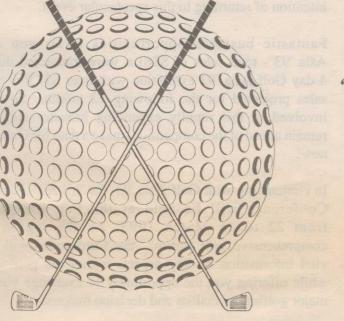
Best Sand employee Neil dies from motorcycle crash

CHARDON, Ohio — John Neil, a 12-year employee of Best Sand Corp., died as a result of injuries suffered in a motorcycle accident June 17.

Neil, 29, was a sales representative for the company and worked primarily with the golf course and foundry industries.

Daughter Kallie, his parents. grandparents and two sisters survive.

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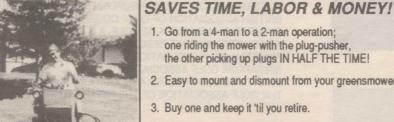
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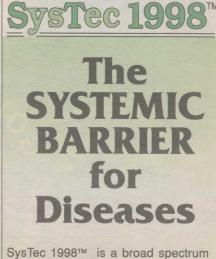
- one riding the mower with the plug-pusher, the other picking up plugs IN HALF THE TIME! 2. Easy to mount and dismount from your greensmower
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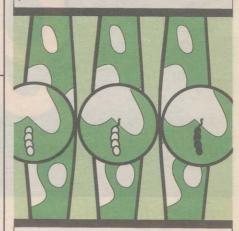
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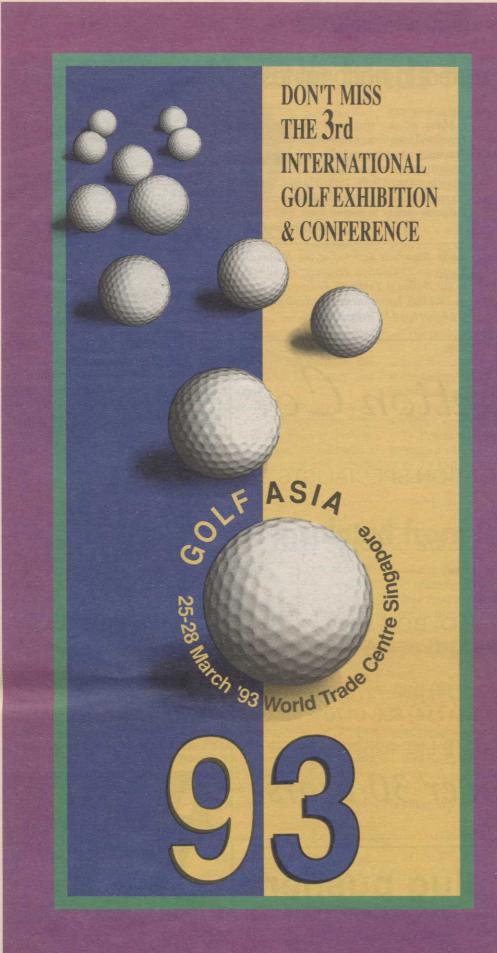
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The Golf Asia series of exhibition and conference returns to Singapore promising to be a great success, once again attracting exhibitors and visitors from all over the world.

Asia's golf industry is continuing it's tremendous boom, with an unprecedented demand on all areas of golf including golf course and resort development and equipment, apparel and accessories design and more golf course development in the 'Growth Triangle' for the next 5 years, estimated to be worth S\$8 billion!

Since the pioneer exhibition in 1991, Golf Asia has experienced an incredible growth in space, sales and attendance, and has become a magnet for some of the biggest names in the golf business such as Daiwa, Bridgestone, Gary Player Design Co., Toro and Rain Bird, to name a few. Golf Asia '92 attracted 223 exhibitors and agents, with a total visitorship of over 21,300 from 22 countries, and overall exhibition space reached 10,000sqm! An overwhelming number of visitors and exhibitors from Golf Asia '92 have already expressed their intention of returning to this spectacular event.

Fantastic business opportunities await you at Golf Asia '93 - total sales of S\$61m were transacted during the 4-day Golf Asia '92 exhibition with over S\$130m worth of sales projected for the following 12 months. So if you're involved in this rapidly expanding industry and wish to remain ahead of the competition, make a date for Golf Asia '93 now!

In conjunction with Golf Asia '93, the 3rd Asia Pacific Golf Conference will be held at the Pan Pacific Hotel from 22 to 25 March 1993. As the region's most comprehensive golf forum, the Conference will provide vital information on key aspects within the golfing arena, while offering you the opportunity to exchange views with major golfing specialists and decision makers.

Confirm your space today by contacting Evelyn Loh, Project Manager, Golf Asia '93.

ENDORSEMENTS

Golf Asia '93 has been proudly endorsed by the following organisations:

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BRIEFS



ENVIRONMENTAL CARE EXPANDS

ATLANTA, Ga. — Bruce K. Wilson, president of Environmental Care, Inc., has announced the opening of a new branch at 6990-D Peachtree Industrial Blvd. in Norcross.

Having expanded steadily since its beginning in 1968, Environmental Care's horticulturists work with fully certified and licensed staff to provide landscape maintenance, water management services, specialized arbor care, interiorscape design, installation and maintenance; and light landscape construction.

Jack E. Mattingly, who headed the Los Angeles branch of Environmental Care, is heading the Atlanta branch.

EQUIPMENT MANAGERS' NEEDS TOPIC

.....

LAWRENCE, Kan. — GCSAA plans this summer a special resource committee to develop seminars addressing the mechanical, regulatory and personnel aspects of the golf course equipment manager's job.

The resulting educational program will be introduced in greater detail at the equipment manager session of the GCSAA Conference and Show Jan. 30, 1993, at Anaheim, Calif.

GCSAA SEEKS INNOVATIVE IDEAS

LAWRENCE, Kan. — "The Innovative Superintendent," a series of presentations by GCSAA-member superintendents, will be a feature of the Jan. 28 afternoon session of the 1993 Conference and Show at Anaheim, Calif.

David M. Bishop, GCSAA director of education, said, "We are looking for superintendents willing to share their expertise. We seek current information and new ideas."

SAFETY HELP OFFERED SUPERS

SafetyMaster Corp., a distributor of commercial safety products, has announced it will donate 1 percent of revenues generated from golf course sales to help fund the scientific and educational efforts of GCSAA's Scholarship & Research Fund.

Its 81-page safety equipment catalog will be distributed to GCSAA members next spring.

ZELLERS GETS REAL DEL MAR POST

TIJUANA — Craig Forrest Zellers has been named superintendent of golf for Real Del Mar Golf Course, an 18-hole course under construction at Real Del Mar, a destination resort on the coast 12 miles south of Tijuana.

Zellers will oversee all maintenance operations for the course, which is scheduled to open for public play in the fall.

Zellers has more than 14 years of experience in the golf industry, most recently as the golf course superintendent for the Carlton Oaks Country Club in Santee, Calif.

By DOUG SAUNDERS

In mid-summer, course superintendents throughout the country battle their own form of severe weather. But their concept of severity can only pale to the brutality raged by Mother Nature in the treeless wasteland of Death Valley. Calif.

Temperatures range from as high as 134 degrees in the summer to a low of 19 in winter. Daytime temperatures average 120 in summer while nighttime temperatures might drop to 100 degrees, offering little reprieve from the onslaught. The oppressive sun relentlessly bakes the ground until soil temperatures can reach 200 degrees. With an average of 1.91 inches of rain a year, it seems impossible for anything to thrive here at the lowest spot in the Western Hemisphere.

Yet in the midst of nature's oven exists Furnace Creek Golf Course at the Furnace Creek Ranch. Here lies a desert oasis surrounded by the salty remnant of a dead lake, miles of sand dunes, and the wrinkled, rocky precipices of 11,000-foot mountains that hold in the stifling heat.

Here lies an 18-hole golf course that for more than 65 years has offered a form of escape from the monotony of this arid world. Here is the chance to play golf in the most uninhabitable place on Earth.

Furnace Creek Ranch was settled in the

in Death Valley's mega-heat



At the lowest point on earth, Furnace Creek grounds crews defy all odds in keeping grass alive

late 1880s during the frantic quest for minerals throughout this stretch of California. Large deposits of borax — an essential mineral in the production of items from tires and cosmetics, to insulation and glass — were discovered.

The Harmony Borax Works, just a mile

from the ranch, quickly grew and the ranch provided alfalfa for the livestock that hauled the ore across the chalky floor on the famous 20-mule team wagons.

In the 1920s, Furnace Creek Ranch had become grazing land for cattle and the area Continued on page 16



A kayaker herds a flock of geese out of a pond at Indian Tree Golf Course in Lakewood, Colo., for transportation out of state. Photo by Pat O'Connor, Colorado DOW

With a giddy-yup, mush...

By MARK LESLIE

Cowboys, roundups and Colorado. A natural combination. But a new ingredient has entered the equation: Geese.

Geese are indeed fouling up golf courses across Colorado, and superintendents in that state — along with cooperative government employees — are doing something about it. They are rounding them up and driving them out, literally. The destination is new residences — the big lakes of Oklahoma and Kansas

The trail boss is Dick Kingman, a.k.a. Richard Kingman, a 25-year lobbyist at the state capital and long-time associate member of the Rocky Mountain Golf Course Superintendents Association.

"Some golf courses are absolutely inundated with geese," said Kingman, who led the roundup with a team from the Colorado Division of Wildlife and Oklahoma Department of Game, Fish and Wildlife. Kingman reported 1,157 geese were corralled June 29 to July 1 during their moulting period when they were losing their flight feathers.

At each golf course a corral is built and placed in the water or by the lake bank and the geese are herded. But the cowboys are in kayaks, not riding horseback.

The 1,157 geese are 300 more than corralled in 1991, an increase Kingman attributed to a mild winter this year.

Lakewood and Rolling Hills country clubs and Englewood, Centennial, Windsor Gardens and Lowry Air Force Base golf courses, along with parks and cemeteries, participated in the roundup. Each year different courses participate because at least 25 are required for a pickup and it usually takes a couple of years or more for that high a population to build up.

Continued on page 17

Turf pioneer Beard retires

COLLEGE STATION, Texas — Dr. James B. Beard has retired from Texas A&M University after 35 years in turfgrass research and teaching, but plans to continue full-time involvement with the turfgrass industry.

The professor of turfgrass physiology and ecology in the university's department of soil and crop sciences has with wife Harriet authored five books and alaboratory manual. He authored 228 scientific papers and 316 technical articles.

He has given numerous invitational papers and been an adviser at international conferences and symposia in the United States, Canada, England, Europe, Far East, Australia, New Zealand, Japan, Korea and Southeast Asia.

Dr. Beard pioneered investigations in turfgrass evapotranspiration, drought stress, metabolic basis of indirect heat stress, shade adaptation, wear tolerance, nitrogen and potassium stress and thatch biodegradation. Particularly hailed was his discovery of the spring root decline phenomenon in C-4 grasses.

Jensen promotes Kirchhoff

David Jensen Associates, Inc. has named Wayne Kirchhoff as project manager for the land planning and landscape architecture firm.

Kirchhoff earned a bachelor's degree in landscape architecture from Kansas State University in 1973 and has worked for design firms in Colorado, Kansas and Arizona.

Gary Bennett: Much can be forgiven with great greens

By VERN PUTNEY

ary Bennett, a scratch player and current national golf course superintendents champion, is accustomed to building things from scratch.

The classy 18-hole Crickentree Golf Club he oversees at Blythewood, S.C., near Columbia, may be his construction pride, but he credits much of the 5-yearold course's success to father Grant and brother David. They've been a prominent part of the Crickentree team as golf teacher and professional, respectively.

Gary might be pardoned staking out the greens as his personal and maintenance crews' territory the greens, which he considers the most important part of a golf course and and the key element in course survival and prosperity.

In 18 years as a superintendent, he's never had a complaint about the putting surfaces.

Bennett spends 20 percent of his budget on the greens. In his tournament and business travels, he's found "bad greens" the chief source of player and peer complaint.

At one facility, for instance, he noted that the course was in excellent condition from tees through fairways, but the greens were bad. Other players termed the course "terrible" and vowed never to

return

Bennett has played courses whose designs were at best marginal but were fun to play because of presentable greens, and courses with great reputations but not as enjoyable because conditions were not the best and the greens a cut or two below expectations.

Proud dad Grant, honored last April as co-founder, builder and pro for 13 years at the Country Club of South Carolina at Florence, said he would stack up Crickentree's greens with any course on the Eastern Seaboard. He is an authority, having traveled and played extensively in 50 years as a pro.

In 1987, Gary supervised all phases of Crickentree golf course and real- estate construction. As construction progressed and with the architect's approval, he made numerous course design changes, coordinating all the crews.

The course was completed three days shy of six months and everything was planted. All that remained was to grow in the grasses. The results are evident.

In 1968, Gary and David helped Grant build the Country Club, and in the late 1970s Gary oversaw construction of the South Course at Deer Track Golf and Country Club in Myrtle Beach.

The "breaks of the game" can be an overworked term in sports, but some

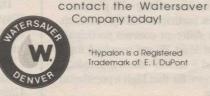


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early rough encounters shaped the Bennett family destiny.

Grant played basketball and baseball on a scholarship at Oak Ridge, N. C., Military Institute while also excelling at golf.

Since a broken arm confined his throwing abilities, Grant turned to golf and caddying as a way to make a buck. Surprisingly soon, he became a crack player and competent professional. He's a member of four South Carolina halls of fame, and Florence high school teams he coached compiled a 200-1 match play record.

Buddy Baker was national junior champion in 1968, edging in extra holes Florence high school teammate Billy Womack.

Though not a Rotary Club member, Grant in 1984 was named by Rotary International a Paul Harris Fellow.

David, at 45 two years older than Gary, followed in Grant's hardship footsteps. A

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CIRCLE #110

few years after receiving a full golf scholarship at the University of South Carolina in 1964, he was attempting to qualify for the North and South Amateur in Pinehurst, N.C., when the rains came. David ducked for cover, but a player in a golf car slammed him into a wall.

Later, working as superintendentprofessional at the Country Club of South Carolina, he tried to manhandle a 300pound fairway unit and re-injured his back, which remains bothersome.

Gary didn't escape family misfortune. He was a promising freshman player at the University of Houston when a car in which he was a passenger crashed into a tree

Gary went through a painful 23-month recovery period marked by prolonged surgery

That ended PGA Tour dreams.

He completed his education at Francis Marion College in Florence, S.C., where he was first-team All-American his senior year.

His next tree encounter, 25 years later, wasn't that damaging. Bennett was felling trees around his home Jan. 26 as the first step to building a swimming pool.

A felled limb landed on his right small finger, crushing bones and leaving the damaged digit held together only by loose skin.

Bennett drove 25 miles to the hospital and returned a week later for injury assessment.

He wangled physician permission to play in the national supers' tournament Feb. 10-11 at two formidable Sawgrass courses in Ponte Vedra, Fla., provided he take only token swings and settle for camaraderie rather than competition.

"Guess I caught a good break," philosophizes Bennett, who except for one year had participated in these tournaments since 1979 and had finished second, third and fourth.

Bennett closed with a one-over-par 73 at Sawgrass' demanding TPC layout to triumph by five strokes in the 36-hole medal play test.

While overcoming adversity made the win especially rewarding, Bennett hopes to be in reasonably good shape when he defends his title next February in San Diego.

Stay away from the gang mowers, Gary.

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your next golf course project,

Musser Foundation chooses three graduate students for scholarships

The Musser Foundation has awarded \$4,000 scholarships to Richard Davis, Jeffrey Klingenberg and Zachary Reicher.

Announcing the scholarships, Musser Foundation President Frank Dobie said: "We must seek new paradigms of thinking if we expect to solve the complex problems of today's world. Supporting this new generation of turfgrass scientists is the wisest move we can make.'

Davis obtained his master's degree in plant pathology at Auburn University

and is preparing his doctoral thesis on ecological aspects of four turf nematode species attacking creeping bentgrass at

Pesticide container report sent to Congress

EPA has submitted a pesticide container report to Congress as mandated by the 1988 amendments to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

The amendments required EPA

to address options to encourage or require: . return, refill

and reuse of pesticide containers:



· development and use of pesticide formulations that facilitate removal of pesticide residues from the containers; and

• use of bulk storage facilities to reduce the number of pesticide containers requiring disposal.

In gathering the information for the 235-page "Pesticide Container Study - Report to Congress," EPA held four open meetings with other federal and state agencies, industry groups, environmental organizations and other interested parties

The first four chapters are devoted to background; chapter five covers the regulations and standards imposed by government and industry.

Chapters six through 12 cover containers, current issues and practices regarding use, residue removal and disposal.

Chapter 13 presents the options required by FIFRA.

The final chapter discusses long-range pesticide container management goals, suggests areas for further study and summarizes the conclusions.

Summary copies and a limited number of complete copies of the report may be obtained by contacting EPA's Pesticide Management and Disposal Staff at 703-305-5288, or Meredith Patterson at Mitchell Systems at 703-351-6758.

GOLF COURSE NEWS



the University of Illinois. His principal advisers are Dr. Henry Wilkinson and Gregory Noel.

Reicher did his master's work at Iowa State University on the effects of pre-emergent herbicides on rooting of Kentucky bluegrass. Now at Purdue University, his doctoral thesis is on the effect of repetitive applications of fungicides on creeping bentgrass. His principal adviser is Dr. Clark Throssell. Klingenberg obtained his master's

degree from New Mexico State University. His doctoral thesis at the University of Nebraska is on development of drought-avoidance mechanisms in turf-

Zachary Reicher

type seeded buffalograss. His principal adviser is Dr. Terrance Riordan.

Each year the Musser Foundation, named for turfgrass pioneer Burt Musser, looks for the most promising turfgrass doctoral students in the world to award moral and financial support. To qualify for a grant, students must be in the last year of their doctoral program, have an accumulative grade point average of 3.4 or above, with their thesis on turfgrass research to the direct



benefit to turfgrass science. They must also demonstrate leadership in academic and extracurricular activities.

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SG-170

CIRCLE #111

MAINTENANCE

Furnace Creek a toasty test for Hindman's grounds crew

Continued from page 13

became a unique destination for tourists. Scotsman Murray Millar carved out three crude golf holes so he and the tourists could play.

Nine formal holes were designed in 1939 by William P. Bell, the prolific California architect who also designed Bel Air Country Club in Los Angeles and Stanford Golf Course in Palo Alto. The course was then extended to a full 18 holes in 1967, with William Bell Jr. doing the redesign. It is a stunning contrast to the surrounding desert scene. The golf course is a lush expanse of common Bermudagrass bordered by date palms and Mediterranean tamarisk, or salt pines. The tamarisk were first planted for shade and a source of firewood. They are a fast-growing tree that can withstand the high salinity of the soil. The date palms provide shade and a cash crop to the ranch.

The course is notable in that it has all-grass bunkers, even though

The sand around Furnace Creek is so high in mineral content that, if it gets wet, it compacts much like concrete.

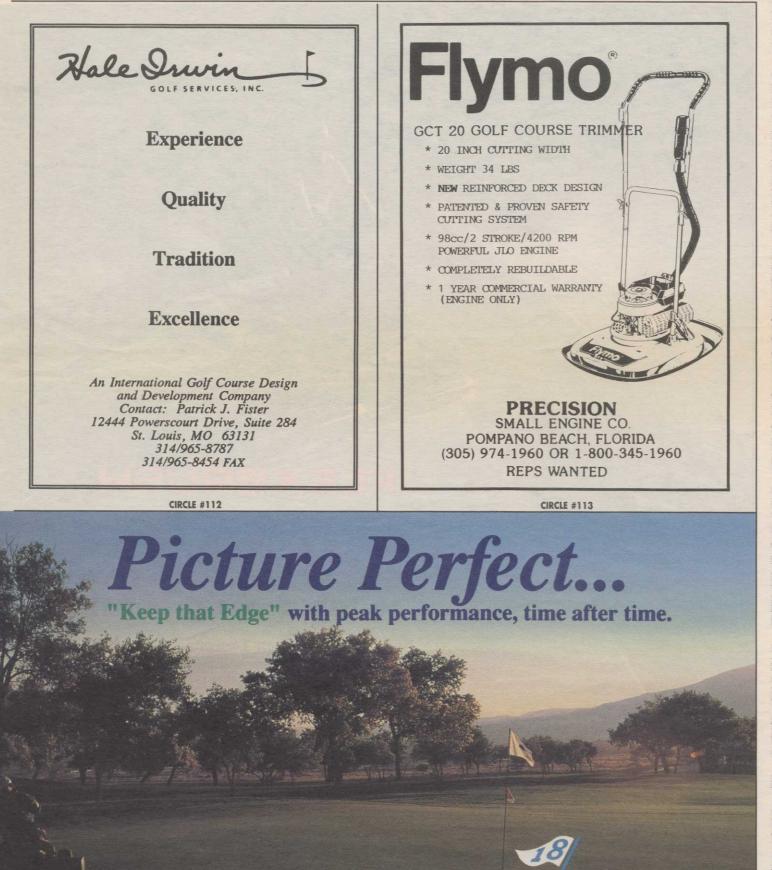
this seems odd in a desert. Fact is, the sand around Furnace Creek is so high in mineral content that, if it gets wet, it compacts much like

concrete.

Quality sand for the traps has been tried, but the sand was no match for the fierce winds that how! through the valley.

Throughout the golf course's existence, the job of maintaining it has bordered on the archaic.

The water source for irrigation is a natural spring which pours from the nearby mountains. Water comes out of the mountain at a temperature of 87 degrees. It supplies abundant water through the winter



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months but dwindles in the heat of summer.

In the early years, the course was irrigated by the use of flood gates that filled the alfalfa fields with standing water. This flood irrigating continued until the early 1940s when galvanized irrigation pipes were finally laid into the course.

Cattle and sheep would graze across the fairways during the hot summer months as late as the 1950s as the idea of golfing in the heat of July didn't strike the fancy of many.

With the installation of irrigation lines, the course stepped into the realm of modern technology, for that time.

Time has stood still at Furnace Creek since then. Old Rainbird heads still have to be installed by hand on one of the 250 hookups that run through the course. PVC pipe was laid in parts of the course in 1967 when the second nine holes were constructed. But even today seven greens and most of the fairways must be irrigated by manual hookups.

Dennis Maskell, Class A member of the GCSA, served as the head superintendent at Furnace Creek for 12 years and has seen all the elements can offer.

"Furnace Creek is a golf course that won't ever be the site of a PGA Tournament, but it is an enjoyable course that offers a unique golfing experience because of where it is," Maskell said.

The biggest challenge is dealing with the high salinity of the soil. Ph levels average 8.5 and, at times, climbed as high 9.0 during his tenure. Leaching lots of fertilizers high in nitrogen helped to combat the situation, he said.

The other difficulty was having a stable water source. The sprinkler system is actually gravity-fed by the spring and pumped through the course with two 75-horsepower pumps. As the water source dwindles in summer, so does the water pressure on the system, pulling the sprinkler radius down to less than 20 feet at a head.

"The heat is something that you sort of get used to," Maskell said. "I remember one summer when we had three straight months where the temperature never dropped below 100 degrees, day or night. I got to the point that it didn't seem hot until the mercury got up over 115."

On top of the intense heat, cold nights are not uncommon in Death Valley during the winter months. Frosts are common and the lowest temperature in Maskell's memory was 19 degrees.

The entire golf course, both greens and fairways, is planted in common Bermudagrass. The greens, obviously, aren't the quickest as a bit more length is needed to withstand the heat, and common Bermuda is rarely, if ever, used on greens. In the winter months, the greens are overseeded with ryegrass while the Bermuda goes **Continued on page 17**

GOLF COURSE NEWS

MAINTENANCE

100 degrees considered a pleasant day at Death Valley golf course

Continued from page 16

dormant.

Maskell has left Furnace Creek and is now working at Shadow Creek Golf Course in Las Vegas, the multimillion-dollar private course of casino tycoon Steve Wynn. In one step Maskell has gone from one of the most outdated courses to one of the ultimate state of the art.

Continuing at Furnace Creek is Bill Hindman, a jack-of-all-trades who now has the duties of superintendent at Furnace Creek. With a force that includes one tractor, two mowing machines, three antiquated E-Z-GO carts, and a crew of four men, he works to make the course more playable.



Superintendent Bill Hindman welcomes visitors at 214 feet below sea level. Photo by Freddy Bird

The golf boom is obvious even here in Death Valley. The winter months are the strong business time for the course, but golfers now come even in the heat of summer just for the experience of playing in the hottest spot in the world. The owners of the course are beginning a major clubhouse renovation, and looking at the possibility of installing a new irrigation system.

"Tm just learning as I go. I've been getting help from people in the turfgrass industry," Hindman said. "In the last few months I have been getting soil samples done in Las Vegas, had high-pressure aeration done to the greens, and been playing with the mowing heights on the greens and fairways."

Although he has only been working on the course for nine months, Hindman has learned what superintendents the world over know: Everyone is an expert when it comes to turf.

"I have explained to the golfers that here in Death Valley things are a little bit different than in other places. The players have a choice. They can either play on grass, or they can play on dirt, depending on how short I cut the greens. I have to do what makes the grass happy, not what makes the golfers happy sometimes."

So during the summer months, if you think Mother Nature is dealing you a bad hand, just remember the crew at Furnace Creek.



Starter or firecracker guns scare ducks and geese away, but only for a short while, says goose roundup veteran Dick Kingman.A roundup is permanent for nearly 100 percent of the geese moved out of state.

Roundup nets 1,157 geese

Continued from page 13

"We have a lot of little lakes but it's basically dry. We only get about nine inches of precipitation a year," Kingman said of the Denver area. "Oklahoma has a lot of big lakes that aren't very populated by yearround geese. They want to build up their lakes for hunting purposes, and these geese basically don't leave during the winter."

In the three days of roundup Kingman and colleagues found only six tagged geese — ones that had been taken to Oklahoma previously and had flown back to Colorado.

DOW biologist Kathi Green said: "Over the years, the goose roundup has helped stabilize the summer population and it helps Kansas and Oklahoma with their goose restoration projects. This is a really good cooperative venture that benefits everybody and helps keep goose problems at a reasonable level."

Kingman said the roundup program has been done annually for the last 15 years and he has been involved the last six years.

It's something that has to be done. Superintendents have tried many ways to keep the messy geese off their courses. Starter guns work, but only for a couple of days, Kingman said.

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for food.

Mountains



BUFFALOGRASS SCORES WELL Dr. Terry Riordan of the University of Nebraska reported that new

varieties of Buffalograss are showing unbelievable promise in that region of the country. The Rocky Mountain GCSA re-

ported that Riordan told a regional U.S. Golf Association conference that two specific varieties - Prairie and 809 - are displaying almost unlimited potential in many different turf situations.

Buffalograss fairways are performing admirably at a cut of 5/8 of an inch, he said, and are consuming less water at this lower classification as a warm-season grass.

These varieties are showing excellent heat and cold tolerance, and may even rival Bermudagrass in its aggressive nature, he said.

CACTUS & PINE BUSY

PHOENIX, Ariz. - The Cactus & Pine Golf Course Superintendents Association joins the 350booth Southwest Horticultural Trade Show at the local Civic Plaza as an educational sponsor.

The superintendents will sponsor a seminar on water quality Sept. 10 and one on equipment use and repair Sept. 12.

The Arizona Municipal Water Users will sponsor an Xeriscape Conference Sept. 11. The Arizona Nursery Association lists a forklift driver training seminar Sept. 12.

Show theme is "Planting for Prosperity." For more information, call 602-966-1610.

CLARK TAKES OVER CACTUS & PINE

Mark Clark of the Country Club of Green Valley is the new president of the Cactus and Pine Golf Course Superintendents Association of Arizona.

Clark's slate of officers includes Vice President Scott Miller of Ventana Canyon Golf and Raquet Club; Secretary Don Flavell of the city of Mesa's Riverview Golf Club; Treasurer Bill Emerson of Paradise Valley Country Club; and Past President Jerry Zidow of Papago

Golf Club.

Comprising the board of directors are Jim Key of Pointe Resort-Lookout Mountain; Kent Nevitt of Fountainhills Golf Course; Max Ortiz of Fountain of the Sun Country Club; Kirby Putt of Arizona Country Club; Kevin Smith; and Marc Snyder.

GRAY APPOINTED AT STARR PASS

Quinton Gray has been named director of golf services for Starr Pass Golf Club, an 18-hole public faciity in Tucson, Ariz.

Gray has been a member of the PGA Senior Tour since 1986, having played in more than 100 tournaments.

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MISSOURI FIELD, GOLF DAY SET

COLUMBIA, Mo. -The Missouri Valley Turfgrass Association, in conjunction with the University of Missouri Turfgrass Field Day, will hold its 5th annual Turf Research Golf Day July 27 at the A.L. Gustin Golf Course at UM. Proceeds will be used to continue research and education programs at the university.

Participants must be a member of MVTA, MVGCSA or HAGCSA.

MICHIGAN EVENT ANNOUNCED

The annual Michigan Turfgrass Conference has been scheduled for Jan. 20-22 at the Holiday Inn in Lansing, Mich.

Information on the event is available from Michael Saffel of Michigan State University's Crop and Soil Science Department, East Lansing, Mich. 48824-1325; 517-353-9022.

South Central



WTGCSA HOSTS TOURNEY

The West Texas Golf Course Superintendents Association will host the 1992 DowElanco Texas Trophy at The Club at Mission Dorado in Odessa on Sept. 13-15. The three-day tournament is open

to anyone and spouses are invited. The Lone Star Golf Course Superintendents Association will mail out information on the tournament. For more information contact Jerry Thompson at 915-523-3416.

HUTCHERSON RECOGNIZED

Terry Hutcherson of Amarillo (Texas) Country Club recently completed the GCSAA's Certified Golf Course Superintendents (CGCS) program.

Southeast

HANDS-ON FIELD DAY IN N.C. CHARLOTTE, N.C. — The

Carolina Grounds Management Association's second annual equipment and supplies field days Aug. 7 and 8 at Charlotte Motor Speedway is a hands-on event.

Areas have been set up for demonstrations of grounds management and landscape equipment, cellular phones and radio systems, tracks and trailers and chemicals and fertilizer.

First-day hours are from 1 p.m. to 4 p.m., the second day from 9 a.m. to 4:30 p.m.

Contact is Parry Currier at Smith Turf & Irrigation Co. 800-932-8676.

PENNINGTON SEED HONORED

Pennington Seed of Madison has been cited as the 1992 Georgia Family Business of the Year. The award is presented to firms demonstrating strong business and family values, contributions to industry and community and innovative business practices or

strategy. Dave Lambert, American Seed Trade Association executive vice president, traveled from Washington, D. C., headquarters to Georgia to attend the ceremony.

FLORIDA SHOW TAKES SHAPE

JACKSONVILLE, Fla. — The Florida Turfgrass Association reported that its 1992 Conference and Trade Show has yielded excellent response from trade industry professionals and show participants.

With the show four months away, more than half of the exhibition space has been contracted for display, with new booths being sold on a daily basis.

The event is slated to be held at Prime F. Osborn Convention Center here Sept. 20-23.

Themed for the surroundings, the "Turfgrass Express: On the Right Track to a Greener Florida," the show marks FTGA's 40th anniversary.

More than 2,000 attendees are expected.

More than 200 exhibitors from the United States, Canada and England will display new products and share the latest techniques and strategies for the turfgrass

Please send news from your area

Superintendents associations and others are invited to send news stories and photographs to: *Golf Course News*, P.O. Box 997, Yarmouth, ME 04096.



Sessions dealing with golf courses, athletic fields, sod production, and lawn care and parks and grounds will highlight the conference and trade show.

industry.

The FTA, which turns 40 this year, hopes that holding the show earlier in the fall will help attract more attendees.

Speakers Monday will discuss: • "Research reports and pest control recommendations" in a panel moderated by University of Florida Turfgrass Coordinator Ed Freeman";

• "Chemophobia and the Turf Industry," led by Dr. Rick Bradenburg; and

• topics impacting the turf industry in a round table led by L.B. McCarty.

Tuesday's palette includes workshops dealing with turf disease identification and control, led by Drs. Gary Simone and D.E. Short; nematode control, led by Dr. Bob Dunn.

Course design, construction and renovation, given by Ron Garl; fertilizers and soil-test fertility recommendations from Dr. Jerry Sartain.

Business analysis and management principles for turf managers, presented by Dr. John Haydu; and putting green maintenance and construction, a round table moderated by John Foy.

Education sessions will feature:

• golf course builder Jerry Pierman discussing golf course construction techniques;

• course architect Steve Smyers talking on course designs for the future;

• Dr. Max Brown speaking on foliar fertilization technology and use.

Ralph White sharing on enhancing a golf course environment; Dr. Ed Freeman dealing with environmental assessment; and Dr. Tim R. Murphy discussing weed control strategies.

STERLING HIRED

Golf West Cos. of Fresno, Calif., has hired Bob Sterling as growin superintendent for the Lake Acworth Golf Course near Marietta, Ga.

Seeding began in July for the course Golf West is developing for Cobb County.

The county leased the land from the Army Corps of Engineers for 50 years on the condition it be used for recreation.

Ken Dye of Houston, Texas, is the course architect.

For the turf manager who worries about every spot, patch and mold.

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CIRCLE #117

MAINTENANCE

GCSAA withdraws USGA funding to begin its own research projects

Continued from page 1

fine. We will continue down our road and share our information and I'm sure they will share theirs."

The GCSAA has annually contributed around \$35,000 to \$50,000 to the USGA research program since its inception nine years ago. The USGA is in the midst of a three-year \$3.2 million commitment and expects to keep up the \$1 million-a-year pace, Bloch said.

For GCSAA's part, Development Director PatJones said: "Our commitment to the USGA remains as strong as ever. Our job has always been as a delivery mechanism. That hasn't changed a bit."

He downplayed the loss of money to the USGA, saying, "The USGA always looked at our financial support as sort of a bonus. When we gave, it was nice, but it was more of a bonus commitment."

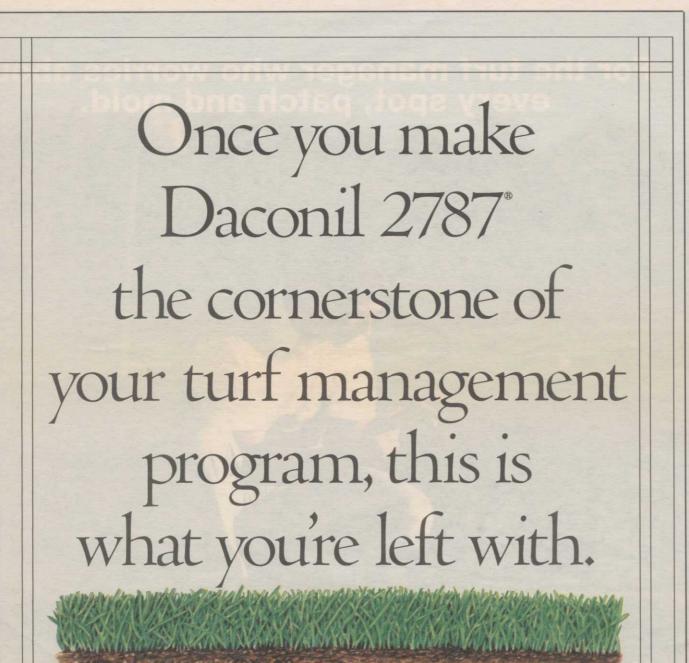
Charles Passios of the Hyannisport Club in Marstons Mills, Mass., the GCSAA superintendent representative on the USGA Turfgrass Research Committee, said: "If anything, the research we do will complement the research that's ongoing. There 's other things to look at, and that's what we intend to do."

Jones, who will administer the research program, said the organization will fund one major project and a variety of lesser ones.

"The board of directors is considering a number of projects. The amount of money we fund will depend on proposals from researchers," he said, explaining that he will request proposals from universities.

"One thing we really need to do is get all the information in one place, be patient, and seek to fill gaps (in research)," Jones said.

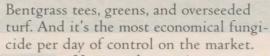
Snow said the major project Jones alluded to will be to "check people who have been applying pesticides — their health, blood work, that sort of thing — to see if there could be a problem. That's good because, one way



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or the other, we need to know. Either they're not going to find much of anything, in which case we can say, 'Here are the people who are most exposed to these products for a long period of time and we can't find anything.' Or, they're going to find something and we will know we should be concerned.

"Superintendents and their employees will want to know if it's a threat, and what can be done about it."

Snow said he thought GCSAA will also monitor ground and surface water on golf courses, investigating "real-life situations.

"We want to get a better handle because that sort of evidence pulls weight with people in an audience — even though researchers working at universities is better science."

Bloch defined the USGA research as broadbased and said GCSAA's investigation of "specialized problems is understandable... Sometimes you have to put priorities for your organization first."

Snowwelcomed the GCSAA research, saying what the USGA can do "is still only a fraction of what can be done."

He pointed out that the USGA could fund only 20 of the 100-plus projects proposed to it by universities nationwide.

For Jones, this culminates early work of his one-year-old department, but it is still only the first step toward important new research.

And Snow said: "I think our program has stimulated interest in research throughout the country. A lot of regional and state golf groups are funding research in their own states.

Jones said he does not believe GCSAA's withdrawal of funds will prompt similar local action.

"I think chapters will continue to divide their research moneys between local, regional and national efforts," he said. "But nationwide, university agricultural programs are losing funding. Local turfgrass societies and superintendents' associations are feeling more pressure to fund research."

USGA 'will make up' for funding loss

The United States Golf Association is not concerned about the loss of money the Golf Course Superintendents Association has provided annually to research projects, according to USGA Green Section National Director Jim Snow.

"Now that royalties are coming in on grasses (developed through the program), there won't be a shortfall at all this year," Snow said. "We will bring in more than the \$35,000 to \$50,000 the GCSAA donates. It depends on the seed yields, but the royalties could come to \$80,000 to \$100,000."

The bulk of the USGA research funding comes from revenues from television rights to the U.S. Open, he said. No companies contribute.

"We're committed to \$3.2 million (from 1991-93), so we regret that they're not going to continue to be part of the team," said USGA President Stuart Bloch. "But the GCSAA will require all the spare cash it can find" to conduct its own research.

Terming the \$1 million-a-year expense "a big item," Bloch said, "We would welcome support — from the right sources."

Pat Jones, GCSAA director of development who, along with the board of directors, will oversee the association's research program, said his first year of work in his new position "all leads to this, but this is only the beginning."

"Until now my job has principally stabilizing fund-raising, setting up the Chet Mendenhall Fund, and organizing so we can begin to do these kinds of things," Jones said. GOLF COURSE NEWS

Scrutinizing ryegrasses

Major strides continue to be made in breeding research

By MARK LESLIE

Ryegrass breeding has progressed with such fervor in the last nine years that researchers may have reached perfection in some areas, according to an eminent ryegrass expert.

Dr. Reed Funk of Rutgers University said: "Up until the present, every time we made a variety lower, darker, finer, denser, or better mowing, it was an improvement. But I think we're at the point right now that it's questionable whether we want them any darker than the darker varieties that are coming out. It's a question whether we want them any finer.

"We have plateaued in some characteristics."

Funk said tough challenges do lie ahead

for ryegrass breeders in areas where "limited progress" has been made — such as in resistance to crown rust, red thread and dollar spot diseases.

"We need new sources of germplasm. We need better straining techniques," he said.

Plant breeding has been on a rocket ship Continued on page 26

Values and in 1906 1. Contract of the contract															connicca on page 20							
Name	CO1	DC1	IA1	ID2	ID3	IL1	IL2	KS2	KY1		NJ2	NJ3	OH1	ON1	OR7	OR9	RI1	UB1	VAI		WA3 I	and a second different
* Affinity (Gen-90)	7.2	3.5	5.9	6.5	6.6	8.7	7.2	8.0	5.8	6.9	7.2	6.3	7.4	6.4	5.9	6.6	4.0	7.6	4.6	7.2	6.6	6.5
* Brightstar	7.8	3.4	6.5	7.4	6.8	7.0	6.5	7.7	6.0	7.8	7.9	6.0	6.7	6.4	5.3	6.5	3.1	8.1	4.8	7.3	6.4	6.5
ZPS-28D	7.8	3.4	5.7	7.4	5.3	8.3	7.1	8.7	6.6	7.3	7.3	6.0	6.6	6.0	5.3	6.6	4.2	7.4	4.9	6.4	6.1	6.4
Pick 89-4	8.2	3.8	6.5	6.9	5.9	8.0	7.8	8.7	6.6	6.9	6.4	6.5	5.8	6.2	4.9	6.3	3.5	7.5	4.5	7.3	6.0	6.4
*Prelude II (2P2-90)	8.2	3.2	6.1	6.7	6.4	7.3	6.3	8.3	5.3	6.8	7.5	6.1	6.9	6.2	5.1	6.4	4.6	7.8	4.1	8.1	6.5	6.4
*APM	8.2	3.7	5.7	6.3	6.3	7.3	6.7	9.0	6.1	6.9	6.9	5.3	6.8	6.3	5.2	6.4	5.0	7.5	4.5	7.6	6.0	6.4
*Yorktown III (LDRF)	8.0	3.0	5.8	6.5	5.9	8.0	6.4	8.3	6.6	6.8	6.7	5.8	6.6	6.3	5.5	6.3	4.5	7.5	4.4	8.3	6.3	6.4
*Assure	8.2	3.4	5.7	7.1	6.6	8.0	6.9	8.3	6.2	6.7	6.3	6.1	6.8	6.2	4.5	6.3	4.7	7.3	4.0	7.9	6.4	6.4
Pick DKM	7.0	3.4	6.3	7.1	6.1	7.7	7.2	7.7	7.3	6.8	7.0	6.3	6.8	6.2	5.3	6.2	3.6	7.3	4.3	7.6	6.3	6.4
*Eagle (WVPB-89PRA3)	8.0	3.6	6.2	6.9	6.6	7.7	6.1	8.3	6.2	6.4	6.3	6.1	6.7	6.2	5.3	6.0	4.5	7.3	4.1	8.0	6.3	6.3
PS-105	7.7	3.6	6.1	6.8	6.5	7.7	6.0	7.7	6.5	7.3	7.0	5.7	6.9	6.2	4.7	6.2	4.1	7.3	4.3	8.0	6.5	6.3
*Pinnacle	8.7	3.3	6.0	6.5	6.5	8.7	6.7	8.3	6.1	6.9	6.3	5.5	7.0	6.3	4.3	6.3	4.7	7.0	4.2	7.0	6.3	6.3
*Advent	8.3	3.6	5.9	6.1	6.2	8.3	6.6	8.0	5.7	6.9	6.4	5.1	6.8	6.0	5.2	6.2	4.3	7.3	4.9	8.0	6.4	6.3
*4DD-Delaware Dwarf	8.0	4.1	6.3	6.8	6.7	8.0	6.9	8.7	7.0	6.2	5.8	4.9	6.9	6.3	4.6	5.9	4.1	7.0	4.2	7.3	6.1	6.3
PST-28M	7.5	3.2	6.3	5.9	5.8	8.0	7.3	8.7	6.2	6.6	7.1	5.7	6.8	6.0	4.8	6.6	3.9	7.6	4.6	6.7	6.4	6.3
*Quickstart (PST-2FQR)	8.2	2.8	6.1	6.5	6.3	8.0	6.8	8.3	5.5	6.8	7.1	6.0	6.2	6.6	4.6	6.4	4.3	7.2	4.2	7.0	6.7	6.3
89-666	7.7	3.8	5.9	7.3	6.5	8.0	6.9	8.0	6.8	6.5	6.0	5.2	6.6	6.1	4.4	5.9	4.4	7.0	4.3	7.4	6.6	6.3
*Repell II (LDRD)	7.8	37	5.2	6.3	6.0	8.0	6.1	8.3	6.5	6.9	7.3	6.2	6.1	6.2	4.8	6.3	4.0	7.8	4.5	6.9	6.0	6.2
PST-290	7.2	3.9	5.2	6.3	6.9	8.0	6.2	8.3	6.3	6.8	6.9	5.3	6.3	6.5	418	6.5	4.0	7.2	4.3	8.2	5.9	6.2
*SR 4200	8.2	2.9	5.7	5.8	6.1	8.3	6.2	8.3	6.1	7.2	6.8	5.7	6.6	6.4	5.5	6.3	3.7	7.7	4.1	6.8	6.5	6.2
*Palmer II (P89)	7.8	3.4	5.5	5.3	6.1	7.0	6.8	8.3	6.5	6.9	7.8	6.2	6.0	6.1	5.0	6.3	3.8	7.8	4.3	7.7	5.9	6.2
Pick 9100	7.0	. 3.3	5.1	7.5	6.8	7.0	6.6	9.0	6.4	6.3	7.0	5.8	5.8	6.3	4.8	6.5	3.7	7.5	4.3	7.7	5.9	6.2
Legacy	7.8	3.8	5.8	5.3	6.7	8.3	6.3	8.3	6.6	6.7	7.0	5.9	5.8	6.2	5.1	6.5	3.5	6.9	4.0	7.3	6.3	6.2
SYN-P	8.2	3.6	5.8	5.7	6.1	7.3	6.9	8.0	6.3	7.1	7.0	5.8	6.2	6.8	4.3	6.1	4.0	7.0	4.4	6.9	6.3	6.2
PST-2FF	7.5	3.5	5.7	6.3	5.7	x	6.8	8.7	6.5	7.3	6.9	5.8	6.6	6.1	4.6	6.8	3.7	7.5	4.3	7.2	6.4	6.2
*Seville	7.7	3.9	5.1	6.6	6.1	8.3	6.0	8.3	5.9	6.3	6.6	5.3	7.1	6.4	4.5	6.3	3.9	6.8	4.1	7.9	6.4	6.2
Pick 1800	8.0	3.8	5.8	6.1	5.7	7.3	7.5	8.3	6.7	6.5	6.1	5.8	6.4	5.9	4.8	6.1	4.0	7.4	4.5	6.8	5.7	6.2
*Dandy	7.8	3.7	5.7	6.5	6.3	7.7	6.7	7.3	6.3	6.0	6.0	5.1	7.2	6.3	4.8	6.3	4.2	6.8	4.3	7.6	6.2	6.1
Pick 89LLG	8.2	3.1	6.6	7.6	6.3	x	5.8	8.0	4.3	5.5	5.7	5.8	6.3	6.3	6.0	6.3	4.0	7.2	4.9	7.9	6.5	6.1
*Navajo' (PST-2DPR)	8.0	3.8	6.0	6.7	6.9	7.7	5.7	8.7	58	5.7	6.2	5.4	5.8	6.3	5.3	5.9	3.9	7.0	4.2	7.0	6.2	6.1
Pick EEC	7.7	3.4	5.3	7.1	5.7	6.3	6.5	7.3	5.9	7.0	6.9	5.7	5.7	6.1	4.9	6.5	4.1	7.7	4.4	7.7	6.1	6.1
MOM LP 3147	7.5	3.2	5.7	6.5	6.0	9.0	6.8	7.0	6.1	6.8	5.9	5.3	6.8	6.1	4.9	6.3	3.8	6.8	4.2	7.1	6.2	6.1
PST-2B3	8.0	3.3	5.9	5.8	7.2	7.3	6.1	8.0	5.5	6.3	5.7	5.5	6.5	6.4	5.0	6.2	4.3	6.9	4.4	7.0	6.4	6.1
LSD Value	1.0	1.1	0.9	1.5	1.1	1.6	0.8	0.9	0.8	0.8	0.9	0.8	0.8	0.6	0.9	0.4	0.7	0.7	0.7	1.5	0.8	0.2

Turfgrass tests very useful — if you use them correctly

By KEVIN N. MORRIS

The National Turfgrass Evaluation Program (NTEP) was initiated in 1980 to coordinate uniform evaluation trials of turfgrass varieties and promising selections in the United States and Canada. Tests are conducted at universities and some private institutions with most states evaluating at least one NTEP test.

Since its inception, the NTEP has collected information on more than 50 turfgrass characteristics from approximately 800 experimental and commercial cultivars encompassing 17 turfgrass species.

Annual progress reports containing data collected the previous year are released for each species tested. A final report containing all data collected is produced at the end of the testing period. These progress reports are available to anyone who requests them.

The number of experimental and commercial cultivars in NTEP tests has increased greatly the last few years — with 123 entries in the current national perennial ryegrass test — making decisions about varieties more difficult for consumers. Therefore, to use NTEP information most effectively, it is important to know how to correctly interpret the NTEP progress reports.

The first step in this interpretation process is to look at Table A - "Locations, Site Descriptions and Management Practices." This table gives information on soil type and pH, GOLF COURSE NEWS levels of soil phosphorus and potassium, whether the test was conducted in sun or shade, the amount of nitrogen and irrigation applied and the mowing height.

Make sure the tests that you are scrutinizing are managed in a similar manner as your site. Data from a Kentucky bluegrass test mowed at one inch and irrigated to prevent any stress would be of little value to you if your site is a non-irrigated home lawn.

Table B—"Locations and Data Collected" — summarizes the data that each location collected. This is especially helpful for monthly quality data as some locations may collect data from only one or two months within a year. In this case, the data presented for that location is not very representative of a cultivar's performance for an entire growing season.

Turfgrass quality ratings are collected monthly and are an overall visual evaluation of each grass. Quality ratings encompass all the factors that affect the quality of a turf stand including genetic color, density, percent ground cover, disease and insect injury, heat and drought tolerance and uniformity.

Past research has found that most researchers evaluating NTEP tests emphasize color and density when rating turfgrass quality.

Turfgrass quality is contained in three tables in all NTEP progress reports. One table displays data from each test location

Lea	ding	ryeg	grass	es in	gen	etic	coloi		
Name	ID2	ID3	KS2	NJ1	NJ3	OH1	OR9	WA3	Mean
Brightstar	8.0	7.7	8.7	9.0	6.7	8.0	7.0	7.7	7.8
Palmer II	7.3	8.0	9.0	9.0	7.0	8.0	7.3	5.7	7.7
Pick 89-4	7.7	7.3	8.7	9.0	6.7	7.7	7.3	7.0	7.7
Pick 9100	7.7	7.7	9.0	8.0	6.0	7.7	7.0	7.0	7.5
Pick DKM	7.7	8.0	8.0	8.3	6.0	8.0	7.0	7.0	7.5
PST-2FF	7.3	8.0	9.0	8.3	6.0	7.3	7.0	7.0	7.5
Gettysburg	7.0	7.7	8.7	8.0	6.7	8.0	6.7	7.0	7.5
Pick EEC	7.3	8.0	8.7	8.3	5.7	7.7	7.0	7.0	7.5
ZPS-28D	8.0	7.7	8.3	8.0	6.0	7.3	7.0	7.0	7.4
Pick 89LLG	7.7	7.7	8.0	8.0	6.0	7.7	7.0	7.0	7.4
Poly-SH	7.3	7.7	9.0	8.7	6.3	7.7	7.3	5.0	7.4
Quickstart(PST-2FQR)	7.3	7.0	9.0	7.7	6.0	8.0	7.0	7.0	7.4
LSD Value	1.2	1.0	0.9	1.0	0.8	0.6	0.7	0.9	0.3

and an overall average (mean). To best use this table, you must determine what locations are the closest geographically to your location.

The overall average is useful to gauge the cultivars' performance over many locations and is helpful in regional and national marketing. However, national averages can be misleading to the average consumer working within only one city or state.

The second table gives the same turfgrass quality data but presents it for each month collected. Evaluating this table can lead to a better understanding of the varieties that perform better or worse during particular months or seasons.

Many people use this table when deciding

on blends of varieties. An individual may want to blend a grass that performs well in spring but poor in summer with a good summer-performing grass.

When considering data from any NTEP table, there is a figure at the bottom — the "LSD Value" — that needs your attention. LSD (Least Significant Difference) Value is a statistical tool to determine if the difference incultivars areal difference or just happened by chance. To determine if a statistical difference exists among two cultivars, subtract the cultivar with the smaller value from the cultivar with the larger value. If the difference between the two numbers is not as large as **Continued on page 22**

Spring greenup leaders in national ryegrass tests												
Name Pinnacle Premier Accolade Saturn Stallion Affinity (GEN-90) Barrage 856 Envy Surprise Gator Manhattan II (E) Ovation Taya Troubadour WVPB-89-87A 4DD-Delaware Dwarf Danaro Entrar Loretta	ID3 7.7 7.7 8.0 6.7 7.0 7.3 6.7 7.3 6.0 6.0 7.7 6.7 7.0 7.3 6.7 7.0 7.3 6.7 7.0 7.3 6.7 7.0 7.3 6.7 7.0 7.3 6.7 7.0 7.3 6.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	NJ3 6.0 5.3 4.7 6.0 5.7 5.3 5.7 5.0 6.3 5.7 5.0 6.3 4.3 5.7 5.3 5.5 5.3 5.5 5.3 5.5 5.5 5.5 5.5 5.5	Mean 6.8 6.5 6.3 6.3 6.3 6.3 6.3 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.0 6.0 6.0 6.0 6.0 6.0 5.8 5.8 5.8 5.8	Name Mulligan (NK 89001) N-33 PST-28M Regal SYN-P Unknown 89-666 Assure Lindsay MOM LP 3184 Legacy Pleasure Citation II Meteor OFI-D4 OFI-F7 PR 9119 PST-2B3 Repell LSD Value	ID3 6.0 7.0 6.0 6.0 6.0 6.3 6.3 6.3 6.3 6.3 6.7 6.3 6.7 6.3 6.0 6.0 6.0 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	NJ3 5.7 5.7 5.7 5.7 5.7 5.3 5.3 5.3 5.3 5.3 4.7 5.0 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3	Mean 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8					

Reading the tests correctly

Continued from page 21

the LSD Value, no statistical difference exists between these two cultivars for that particular characteristic.

Table 3 ranks quality ratings over each location. This table is useful for quickly determining the general performance of cultivars over different locations and regions.

No LSD Value is present at the bottom of this table, therefore, to determine statistical differences among cultivar. Consult the LSD Values found in Table 1.

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Find out how SunDevil from Medalist America can save you time, effort and money! Contact your Medalist representative today, 1-800-568-TURF.



Locations in Minneapolis, MN, Albany, OR, Downers Grove, IL, New Brunswick, NJ

Data on a number of "descriptive" turfgrass characteristics, including genetic color, density and leaf texture, are collected by one or more locations for each test.

With these descriptive characteristics, it is helpful to have data from many locations and use an average of these locations.

This approach of looking at overall averages is different from the approach for turfgrass quality (looking mainly at local averages) because the cultivar differences that exist with these descriptive characteristics mainly come from each evaluator's preference for a certain color or leaf texture rather than from a difference in environment or management of the turf.

Percent living ground cover can be collected in spring, summer or fall. Percent living ground cover is designed to express damage caused by disease, insects, drought, etc. This differs from density ratings which are designed to rate the number of living plants per unit area (excluding damaged patches).

Ground cover ratings help determine survival of turfgrasses through various stresses. Many people use ground cover ratings to determine how a grass survived the summer stress period and, consequently, how the percent ground cover changed (how well the grass recovered) in fall.

Certain diseases such as leafspot, red thread, dollar spot and brown patch occur quite frequently and uniformly in test plots. Therefore, the NTEP often contains data from several of these diseases in each progress report. Since disease organisms can vary between locations, it is important to choose varieties that have resistance to a particular disease at several locations — even though no data for that disease may have been collected at test sites nearest your location.

Also, tracking a cultivar's response to diseases over several Continued on next page

Best in leaf texture

	Door in rour i	ON	010
		NJ3	Mean
	Pick 89LLG	7.0	7.0
	Affinity	6.7	6.7
	Assure	6.3	6.3
	HE 311	6.3	6.3
1	Repell II (LDRD)	6.3	6.3
	WVPB 89-92	6.3	6.3
	ZPS-28D	6.3	6.3
	Brightstar (PST-GH-89)	6.0	6.0
	Danilo	6.0	6.0
	Dimenson (2H7)	6.0	6.0
	Eagle (WVPB-89PRA3)		6.0
	Elite (WVPB-88PRC23)	6.0	6.0
1	Legacy	6.0	6.0
	Palmer II (P89)	6.0	6.0
	Patriot II	6.0	6.0
	Pick 1800	6.0	6.0
	Pick 89-4	6.0	6.0
	Pick 9100	6.0	6.0
	Pick DKM	6.0	6.0
	Prelude II (2P2-90)	6.0	6.0
	PST-28M	6.0	6.0
	PST-2FF	6.0	6.0
	Quickstart (PST-2FQR)	6.0	6.0
	SR 4200	6.0	6.0
	SYN-P	6.0	6.0
	Yorktown III (LDRF)	6.0	6.0
	ZW 42-176	6.0	6.0
	LSD Value	1.0	1.0

Getting readings straight

Continued from previous page years better indicates its true disease resistance under different environmental conditions.

Many diseases occur infrequently, if at all, in test plots. Many diseases, when they occur, do not distribute themselves uniformly across the test area, making an accurate estimation of resistance or susceptibility very difficult.

Diseases such as summer patch and necrotic ring spot seem to show their characteristic frog-eye symptoms only after significant levels of thatch are produced (usually two to four years after establishment).

Diseases such as powdery mildew occur mainly in shade. Some diseases are prevalent only in certain locations - like stem rust in the Pacific Northwest.

Making decisions concerning resistance to these infrequent diseases should follow these guidelines:

• Be careful using only one year's data from one locations. Look closely at the LSD Value. A high LSD Value that shows little statistical difference among all entries probably indicates that the disease was not distributed uniformly enough across the plot area.

· Only consider resistance to diseases that are problems in your area.

Data on resistance to certain insect pests is occasionally reported for NTEP tests. Often, insects do not appear uniformly across an entire test or in numbers large enough to cause significant damage. Therefore, when a high insect population does occur, the resulting data can be very beneficial.

Even though only one or two locations may report data on insect resistance, this data can be very useful in determining some level of resistance or susceptibility.

The NTEP progress reports also contain small amounts of data of several traits including vertical growth ratings, sod strength, winter kill and wear tolerance. This data helps determine the best culti-

Top in winter	r co	olor
		Mean
Palmer II	8.0	8.0
Pick 89-4	7.7	7.7
Pick 9100	7.7	7.7
Pick DKM	7.7	7.7
Pick EEC	7.7	7.7
Poly-SH	7.7	7.7
Prelude II (2P2-90)	7.7	7.7
PST-23C	7.7	7.7
Affinity (GEN-90)	7.3	7.3
Brightstar (PST-GH-89)	7.3	7.3
Dimension (2H7)	7.3	7.3
Navajo (PST-2DPR)	7.3	7.3
Pick 1800	7.3	7.3
PS-105	7.3	7.3
Quickstart (PST-2FQR)	7.3	7.3
Repell II (LDRD)	7.3	7.3
7PS-28D	7.3	7.3
4DD-Delaware Dwarf	7.0	7.0
Advent	7.0	7.0
Eagle (WVPB-89PRA3)	7.0	7.0
Gettysburg	7.0	7.0
PR 9121	7.0	7.0
PST-2B3	7.0	7.0
PST-2FF	7.0	7.0
SYN-P	7.0	7.0
Yorktown III (LDRF)	7.0	7.0
ZPS-2EZ	7.0	7.0
LSD Value	1.1	1.1

GOLF COURSE NEWS

vars for those situations where these characteristics are important.

NTEP tests are shown at field days in many states. This is a good opportunity to see, first-hand, variety differences and discuss these with researchers. But keep in mind that you are looking at these varieties on only one day of the year and their appearance changes sometimes daily during the growing season.

The reports can be obtained from the National Turfgrass Evaluation Program, BARC-West, Bldg. 001, Room 333, Beltsville, Md. 20705.

Leading ryegrass varieties in terms of summer density

Name	NJI	NJ3	Mean	Name	NJI	NJ3	Mean
Affinity	7.7	6.7	7.2	PS-105	7.7	5.3	6.5
ZPS-28D	8.7	5.7	7.2	Assure	7.0	5.7	6.3
Brightstar	8.7	5.3	7.0	Eagle (WVPB-89PRA3)	6.7	6.0	6.3
Repell II	7.7	6.3	7.0	Express	7.0	5.7	6.3
SYN-P	8.0	6.0	7.0	Pick 1800	6.7	6.0	6.3
Advent	7.7	6.0	6.8	PST-28M	6.7	6.0	6.3
Gettysburg	8.0	5.7	6.8	Yorktown III (LDRF)	7.0	5.7	6.3
Pinnacle	7.7	6.0	6.8	OFI-F7	6.7	5.7	6.2
Quickstart(PST-2FQR)	8.3	5.3	6.8	Legacy	7.0	5.3	6.2
SR 4200	8.0	5.7	6.8	MOM LP 3147	7.0	5.3	6.2
Pick DKM	7.3	6.3	6.8	Palmer II (P89)	7.0	5.3	6.2
89-666	7.3	5.7	6.5	Pick EEC	7.3	5.0	6.2
APM	7.7	5.3	6.5	PST-290	7.0	5.3	6.2
Pick 89-4	7.0	6.0	6.5	PST-2FF	7.3	5.0	6.2
Prelude II (2P2-90)	7.0	6.0	6.5	LSD Value	1.8	1.1	1.0

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CIRCLE #120



Continued from page 11

ranked number 45 (for turfgrass quality data averaged from 21 locations) out of 123 entries in first year data from the current national perennial ryegrass test established in 1990. Out of the 45 entries ranked above Saturn, 27 entries performed statistically better (for turfgrass quality) than Saturn.

Mypurpose here is not to belittle a particular variety but to demonstrate the outstanding progress that has been made in perennial ryegrasses with darker green color, better density and lower growth habit.

It appears, also, that disease re-

Better evaluations needed under specific situations

and other areas.

sistance has been improved some-

what in these new cultivars. In ad-

dition, approximately 70 of the 123

entries contain at least 50 percent

fungal endophyte which adds re-

sistance to certain insect pests and

Tall fescue is another species

that has come a long way from the

old, well-known, forage variety

Kentucky-31. Genetic color, density

and leaf texture have been greatly

improved in tall fescue, increasing

the use of this grass on home lawns,

athletic fields, golf course roughs

stress tolerance.

Unfortunately, the older forage and first-generation turf-type (i. e. Rebel and Falcon) cultivars seem to survive better during extreme heat, humidity and prolonged drought conditions, especially during typical homeowner mismanagement that often occurs.

But I believe breeders are trying to improve on the "survivability" of the newer, denser, lower-growing, turf-type tall fescues.

Bentgrasses (creeping, colonial and dryland types) were first evaluated by NTEP in 1989 with three separate tests established-greens management on modified soils, greens management on native soils, and a fairway/tee test. The first data was collected in 1990.

The data has shown that considerable variation is present among the entries in that test. Genetic color and density have been improved in creeping bentgrass. In some instances, disease resistance has been improved and in other instances it has not. The strengths found in colonial bentgrasses have been better dollar spot resistance and winter color than creeping bentgrass. Unfortunately, colonial bentgrass seems to be more susceptible so brown patch than creeping types.

The NTEP has been a good vehicle for the introduction of newly improved species such as buffalograss and zoysiagrass. Although these two species have only been in nationwide tests for one year, considerable information has been gained on their possible adaptation and use in the United States.

Buffalograss, native to the Great Plains area, has shown to be fastspreading, drought-tolerant and, in some instances, quite attractive for well manicured turf. Investigations are under way concerning wear tolerance and insect and disease resistance of buffalograss.

Determining locations and use situations (roughs, lawns, roadsides) where buffalo grass will work best is still under way, although the grass seems to have the most utility in the Midwest and Western United States, and somewhat less utility in the humid, Eastern states where disease pressure is greater.

Zoysiagrass has been used for more than 40 years in the United States but has seen a resurgence in interest in the the last three to four years. This increased interest results from environmental concerns with pesticide use and the need for a grass that will perform well in hot, humid summers and still survive moderate cold winter temperatures.

The main drawbacks to the use of zoysiagrass (slow-spreading,vegetative establishment only) have been addressed with fasterspreading vegetative types and seeded types currently being tested by NTEP.

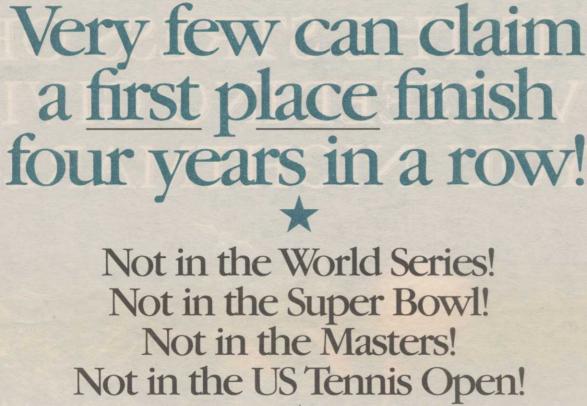
Much variation exists within the different zoysia species for genetic color, leaftexture and density. Some of the zoysias approach the fineness of bentgrass. All grasses have negative aspects, with the very fine leaf zoysias being less winter-hardy and probably only suitable for use in the lower southern states.

Zoysiagrass may not be able to compete effectively in the marketplace with Bermudagrass and buffalograss in many of the drier areas of the Midwest and West as the latter two species have better drought tolerance.

However, zoysiagrass probably can have its greatest impact in the more humid Eastern and Southeastern states where disease and weed pressure is high and summer stress is common along with occasional "deep freeze" winter conditions.

With the improvements in the various grasses, many more seed companies have become interested in marketing these newer grasses. In fact, many of these companies are not only marketing new improved grasses, they are directly involved in the breeding, development and production process as opposed to just obtaining the right to market varieties of other companies. This situation has led to dramatic increases in the number of grasses in NTEP tests and consequently an increase in the num-**Continued on next page**

GOLF COURSE NEWS

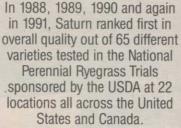


But it did happen in the USDA Turf Trials... <u>The winner was Saturn</u>, <u>4 years in a row!</u>



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More complete tests expected

Continued from previous page

ber of grasses available in the marketplace.

The NTEP is mainly an open system that allows developers of varieties to have their grasses tested nationwide for a relatively modest fee. The information released by the NTEP is valuable to these developers in production, marketing, and further breeding efforts. Using this information, a company can decide how and when they should market their grasses or whether to try to sell the grass to another company.

In many cases, a grass is never released to the marketplace due to poorturfperformance or production problems.

Most European countries use a different system of variety evaluation. The majority of European countries have recommended variety lists for consumers. These variety lists carry much weight with consumers. Seed companies have found that if a variety is not included on a country's recommended list, the company will not be very effective in marketing that variety.

To be considered for inclusion on a country's recommended list starts with several years of turf evaluations, usually at multiple sites within the country along with DUS (distinctness, uniformity and stability) grow-outs.

The purpose of DUS testing is to determine that the variety 1) is distinctly different from other available varieties; 2) is uniform and consistent in seed production, and 3) will remain stable in seed production (certain plant types will not dominate others over time and therefore alter the variety).

This system takes sometimes seven years or more to complete, with costs comparable to, or more than the NTEP. All this time and money does not assure that a particular variety will be placed on that country's recommended list.

Please note that the NTEP does not conduct DUS-type testing. However, the USDA does grant Plant Variety Protection (PVP) for varieties that are shown to be distinctly different.

More cultivars to choose from is good for consumers if information available on these grasses is adequate to determine where and when each should be used. Unfortunately, with the number of grasses in the marketplace increasing (probably more than 100 varieties each of perennial ryegrass, Kentucky bluegrass and tall fescue), the ability to choose one variety over another becomes more difficult.

Varieties with better color and density tend to rank highest for turfgrass quality in NTEP tests. Sometimes, the varieties that are not as dark green or as dense have other attributes that add value (like drought tolerance and low maintenance). Although differences other than color and density are impor-GOLF COURSE NEWS tant to consider, it is difficult for companies to develop and promote varieties on just these other characteristics.

In addition, I am not sure that NTEP information on wear and shade tolerance, tolerance of close mowing (less than 1 inch) and drought resistance is complete enough to detect distinct variety differences for these characteristics. For instance, I am aware of only one location that is maintaining the current national perennial ryegrass test at fairway height.

Some diseases and insects occur sporadically within test plots and therefore very little data is available for these pests over several locations and years. Also, some locations have not collected as much information on these tests as other locations. This incompleteness leads to more questions than answers concerning performance.

To better serve the various needs of the different consumer groups in the United States, the following issues concerning variety development and evaluation need to be addressed:

1) A need for more in depth evaluations including several locations each for such problems as shade tolerance, drought tolerance, ability to survive extreme stresses including low and high pH soils, etc. 2) Better evaluations under specific management situations - i. e. reduced maintenance (pesticide, fertilizer and water) and wear tolerance under golf traffic.

3) More complete data collection for turfgrass quality, diseases and drought by each university involved in NTEP testing.

The NTEP is already addressing many of these issues using different avenues. Kentucky bluegrass is now being tested in coordinated, separate low-maintenance and highmaintenance tests.

The NTEP Grants Program, initiated in 1990, is funding 23 studies (\$480,000 over three years), some of which will hopefully increase our knowledge of drought tolerance, disease resistance and identification of particular locations or management situations where specific varieties offer improved performance.

The NTEP Grants Program, starting with tests established in 1992, is also partially funding the basic evaluations at universities. This funding will help university scientists conduct more uniform tests and collect better and more complete data.

In the end, the NTEP hopes to offer more complete information to consumers, which will benefit all who purchase and market turfgrass seed.

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Heat, drought sock seed yield, mean high prices

Low seed yields will result in higher prices this fall as late-June temperatures climbed into the high-90s and low-100s throughout the grassrich Willamette Valley. July brought no relief.

The high temperatures were part of a devastating 1-2 punch that saw the region's rainfall during the September-June grass-growing season fall 14 inches below the average 35 to 40 inches.

As a result, fine and tall fescue production will only reach 30 to 40 percent of their normal yields, predicted Seed Research of Oregon President Mike Robinson. The ryegrass crop will be off 10 percent and maybe more if the hot, dry weather continues, he added. "I saw one 50-acre field yesterday (June 23) that will be a total write-off," Robinson said. "This is the critical time when seeds begin dropping. The fields don't fill well in weather like this, especially in sandy areas. Many of the fields in gravelly areas along the rivers are gone."

More water-retentive, clay-soil fields are in far better shape, Robinson said. So, too, are the bentgrass plots, although a continued heat wave could also affect them. Oregon has had the greatest increase in average temperature of any of the 50 states this year," Robinson said. "Last year it rained almost every day through July 4 and we were afraid the grass would never produce. It's always feast or famine here." According to Barry Norris, an engineer for the Oregon Department of Water Resources, drought conditions have persisted for six years now. A lack of precipitation has been exacerbated by this year's record-setting temperatures.

"It's been extremely warm here," said Norris. "We've had record high temperatures broken on several occasions. We've also had record-breaking low flows in rivers across the state—not just record-breaking, record-shattering. These rivers are down 33 percent."

News of the poor seed harvest didn't surprise Norris. "If they're depending on highprecipitation this year, they're hurting."



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Ryegrass breeders pursuing major results continued from page 21

since the discovery in 1983 of endophyte, a fungus that lives within plants and gives them natural resistance to certain surface insects.

"Soon, with that (endophyte) clue, we found resistance to sod webworm and later to billbugs and chinchbugs and so forth," Funk said.

And the list of improvements goes on, although presence of endophytes in a grass matters less if it is being used to overseed.

Funk pointed out that of the top 45 varieties of ryegrass in the 1991 first-year results of the National Turfgrass Evaluation Program, only two were in the previous test.

Kevin Morris, director of the NTEP, said: "In this test we have almost twice as many entries as the last one. I suspect of the 123 varieties this year, 80 to 90 have never been in the test before."

Saturn, which topped the list in 1986, rated 45th in the 1991 results, which were released in July. Dimension was near the top in 1986 and is ranked 35th now in overall average.

"Most of the varieties that performed with higher averages are just coming on the market," Funk said. "They are darker, lowergrowing, more stress-tolerant, more resistant to brown patch, better mowing."

Funk said plant breeders can "build on every previous cycle" of breeding.

"We've made a lot of progress in the last 30 years. I think we'll make even more in the next 30 years," he said. "A big factor is we've been able to attract a number of very competent young men and women into turfgrass breeding. They will do better than the old professors that started out knowing less than they do. "

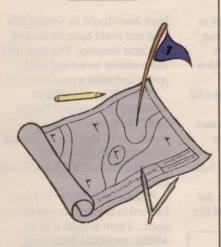
Funk said more of those plant breeders are working at commercial firms than at universities.

Morris explained that more companies today want their own varieties. "They then don't have to pay royalty fees and they have more control of the supply," he said.

Asked why a seed ompany would enter so many varieties of ryegrass in the national test knowing they might not rank highly, Morris said, "Companies in the lead usually offer a great difference in seed. They may be looking for varieties that produce well or to put into blends and sell on the consumer market."

"In the golf industry," he said, "the superintendent usually wants the best and has the money for it. But he also has out-of-play areas he doesn't want to pay so much for."

BRIEFS



GLASSER OPENS ACE CONSULTANTS

Joe Glasser, former director of golf at The Cloister's Sea Island Golf Club on St. Simons Island, Ga., has established a golf consulting business, Ace Consultants, specializing in new facility development services and existing facility performance improvement services.

Glasser began his career in golf operations management at Marriott's Camelback Inn Resort and Golf Club in Scottsdale, Ariz., in 1975. He accepted the director of golf position at Marriott's Grand Hotel in Point Clear, Ala., in 1981 and left for the Sea Island Golf Club position in 1989

ASGCA MAKES ZIKORUS A FELLOW

Al Zikorus of Canaan, Maine, was elected a fellow of the American Society of Golf Course Architects at the society's annual meeting in Southampton on Long Island, N.Y.

Fellow members are regular members who have been in good standing for 10 years or more, have reached the age of 70 and have been approved by the ASGCA board of governors.

Agolf course architect for more than 35 years, Zikorus has designed Tunxis Plantation Country Club in Farmington, Conn.; Twin Hills Country Club in Longmeadow, Mass.; Heritage Village Golf Course in Southbury, Conn.; Timberlin Golf Course in Berlin, Conn.; and Tashua Golf Club in Trumbull, Conn., among others.

RAVINES FIX-UP UNDER WAY

MIDDLEBURG, Fla. - The Ravines Golf and Country Club has begun an extensive course renovation program which includes redesigning and rebuilding all 18 greens.

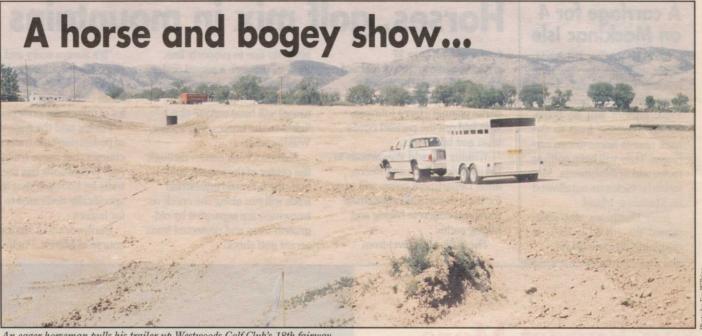
Mark McCumber and Associates, one of the original designers of the course, is directing the program which began June 1. When completed on Nov. 1, the course will reopen.

The Ravines, ranked as one of the top 20 golf courses in Florida for the last 12 years, is owned by Kondo Sangvo Corp. of Osaka, Japan.

JOINT VENTURE PLANS FACILITY

READINGTON TOWNSHIP, N.J. - A joint venture has been formed and the contacts finalized to develop a residential golf community here.

Stanton Property has begun construction on the golf course and infrastructure for a 550-acre development. The project includes an 18-hole private, championship golf course designed by Stephen Kay. The golf course is expected to be ready for play in early summer 1993. **GOLF COURSE NEWS**



In Woodland Park, west of Colorado

plans a golf community with a horse and

The first thing you notice in this region

is the demand for horse property," Ranney

HORSES, GOLF A PERFECT MARRIAGE

Colorado is "avid horse country with

spectacular golfing sites," said Jim

Springs, Zenith President Dale Ranney

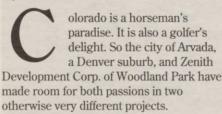
mountain biking trail encircling the

course.

said.

An eager horseman pulls his trailer up Westwoods Golf Club's 18th fairway.

By MARK LESLIE



In Arvada, 140 acres of city land will be home to municipal Westwoods Golf Course and will feature 2-1/2 miles of equestrian and biking and hiking trails.

Norman brings Mackenzie look to American 18

From staff reports

LONG GROVE, Ill. - Greg Norman and the folks at Kemper Sports Management feel golf course architect Alister Mackenzie would be happy with their new creation 35 miles northwest of Chicago - Royal Melbourne.

"We tried to be true to the traditions of the game," said Kemper Vice President Doug Schmidt. "The Royal Melbourne course in Australia is one of Greg's favorite in the world, and we feel we have kept to Mackenzie's rules of design

in our Royal Melbourne." The American version, a private course that opens to

members Aug. 15 and whose grand opening will be Sept. 12, indeed fits the Mackenzie mode in all the key areas.

Mackenzie said a golf course should: · Consist of two loops, cre-

ating different wind conditions. ("Done," says Schmidt.)

· Mix long par-4s with shorter, tough par-4s, calling for an infinite variety of shots. ("Done.")

• Have greens and fairways that are very undulating but not severe. ("Ibid.")

 Sportminimal blind shots. ("None.")

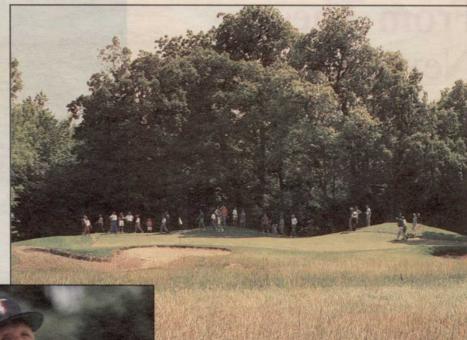
Stress natural beauty, not

contrived by man. ("Put an asterisk on that.") · Cause absolutely no annoyance by causing the golfer to look for

lost balls. ("Only if you want to skin dive in one of the nine lakes.") Maintain excellent course conditions. ("We've hired Tim Sedgley from Oakhurst Country Club in Antioch, Calif.")

· Flash the sand as opposed to building overpowering bunkering. ("Done.")

Camouflage (Mackenzie's strength). ("On the 18th the bunker



match.

Greg Norman blasts a shot during his inaugural round at the first course he has designed in the continental United States - Royal Melbourne. The 17th hole shows the challenge and beauty of the private country club which boasts Michael Jordan and Chip Beck as members.

Wilkins, superintendent of Arvada's other

municipal, Lake Arbor Golf Course. City

fathers hope Westwoods makes a perfect

Whereas horsemen in Lakewood, just

seven miles away, vehemently opposed

construction of Fox Hollow Golf Course,

Arvada's equestrians have supported the

municipal project and have been attentive

Continued on page 28

onlookers during construction of

Westwoods, according to Wilkins.

is out 40 yards from the green, just like Mackenzie would do it.")

Schmidt said the course combines three natural elements. Six holes are set in a heavily wooded area with mature oak trees. Six are set in a designated preservation prairie-wetland area. And six holes play around nine manmade lakes.

This balance in design came from the team of Norman, who was involved from the pre-planning stages; architect Ted Robinson, who did the routing plan; and Kemper Director of Golf Bob Spence, who supervised construction.

The course plays four sets of tees from 5,500 to 6,800 yards.

The 325-member club includes such notables as NBA star Michael Jordan, PGA Tour pro Chip Beck; Chicago Bears standouts Jim Harbaugh and Ron Rivera; and Western Golf Association President Bob Alsteen, who lives off the 17th hole.

They already have a challenge - matching Normans inaugural round feat. Norman reached the 565-yard, par-5 17th, a double dogleg, with a 325-yard drive and a 2-iron which cleared the towering oaks from 235 yards out and stopped 15 feet from the pin.

"We will put out a plate on the fairway to commemorate that shot," Schmidt said. "People will try to duplicate that shot for years."



A carriage for 4 on Mackinac Isle

MACKINAC ISLAND, Mich. — When the new nine holes at Grand Hotel's Jewel course is complete here in mid-1993, golfers will be transported from the front to the back nine in horse-drawn carriages. They will have golfbag racks and refreshments. Motorized vehicles are not allowed on Mackinac Island.

Jerry Matthews, who redesigned the Jewel in 1987, is designing the new layout.

Horses, golf mix in mountains of Colorado romerty line to property line, "It's always scary and risky to front nine should be seeded

Golf course architect Richard Phelps designed the Arvada course, working in concert with parks planner Harry Johnson, who laid out the parallel equestrian and bike trails.

Wilkins will add Westwoods to his overview. Park and Recreation Department crews will care for the ash-surfaced equestrian trails and concrete biking and hiking paths.

The trails will travel from

property line to property line, then go through a tunnel under Quaker Street to connect with existing city horse trails. The tunnel will have unique skylights so the horses won't scare, Wilkins said.

Ralston Creek comes through the center of the course, and both the bike and equestrian trails will run along the creek so horsemen are separated by oldgrowth trees and protected from errant golf shots. "It's always scary and risky to run trails through a golf course," Phelps said. "We tried to run them along the greenbelt with a lot of foliage for protection."

Phelps said the region has a lot of pedestrian-type trails on courses, but horse trails are rare. And Westwoods has the only trails he knows of that are specifically dedicated to and built for horses.

Earthwork was started on the course in March. Phelps said the

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Preluden

Lofts/Ohio Wilmington, OH (513) 382-1127 (800) 328-1127 front nine should be seeded this year and could open for limited play next summer. The back nine will probably be seeded next spring and open a year later.

"This will be an excellent municipal golf course," Phelps said. "We have a mixture of woods, we're building ponds, and there are high points with beautiful views of the foothills and Denver."

Wilkins said: "We're looking forward to having this golf course open... There is quite a bit of wildlife: mountain lions, deer, foxes, coyotes, cranes."

AN IDEA FOR THE FUTURE

Will this idea of mixing equestrian trails and golf courses catch on?

Zenith's Ranney said these are "some of the amenities people are looking for."

Ranney's 480-acre Hawk Ridge development will include an 18hole Scottish links-type course designed by Byron Coker. Crushed, compacted granitesurfaced trails will run parallel to all roads.

"There has been interest in an equestrian center with a stable," he said. But the homes will be on sites as large as five acres, so many homeowners will house horses on their own land.

Since the development is surrounded by Pike National Forest, equestrians can literally ride along the golf course and off into the sunset.

Irwin signs to design N.C. layout

Hale Irwin Golf Services, Inc. has been commissioned to design the golf course planned for The Meadowlands golf community.

The Meadowlands is located in Davidson County between Winston-Salem and High Point, N.C. The Meadowlands is a 600-acre master planned golf community near Bushy Fork Creek. The course plans to be an 18-hole par-72 semi-private country club.

The developer is W&W Properties, Inc. The site has extensive oldgrowth oak and pine forests interspersed with gently rolling meadows. William G. Daniel & Associates of Cary, N.C., has been retained as engineers for the community. John Runyan, development coordinator with W&W Properties, said, "Golf course construction is scheduled to begin in the fall of 1993, with an opening planned for the summer of 1995."

Architect Richard M. Phelps will provide the architectural planning for earthmoving, drainage, features construction and other technical aspects of the course, and produce the architectural plans used in course development.

GOLF COURSE NEWS

CIRCLE #124

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Builders add education and certification to conference

ST. LOUIS - Two days of educational sessions and a cocktail reception on the eve of the PGA Championship will highlight the annual membership meeting of the Golf Course Builders Association of America, Aug. 12-14 at Doubletree Hotel here.

The semi-annual conference of golf course construction contractors and specialists will be the first with a formal tie to the PGA of America's premier tournament.

"We held the meeting last summer at the PGA because the time and place - Crooked Stick in Carmel - were convenient. But the tie seemed so natural that we've formalized the relationship for the next three years," said Phil Arnold, GCGBAA executive vice president.

GCGBAA President Jerry Pierman added: "Our annual winter meeting is at the International Golf Course Conference and Show with the Golf Course Superintendents Association of America, the people who maintain the courses our members build. So it seems fitting that we also meet regularly with golf professionals, the people who have the closest relationship with the ultimate users of golf courses.

Thursday morning's educational session will focus on the Allied Associations of Golf, featuring speakers from the PGA of America, United States Golf Association, Club Managers Association of America, GCSAA and the Society of Golf Course Architects.

"With the recent explosion of golf course construction, many of our members have been so busy building courses that they haven't had time to learn about the other professions that make up the golf industry, particularly those who move onto a course after it is built," Arnold said. "This session should bring them up date.'

Already committed is Jim Snow, director of the USGA Green Section, who is expected to confer with the builders about revisions to the USGA's construction recommendations.

Friday's activities will feature educational sessions devoted to recent scientific and technological development affecting the construction industry. In addition to a presentation by noted agronomist Dr. J. Kevin Mathias of the University of Maryland, several of the GCBAA associate members will speak briefly.

Final item on the agenda is Friday afternoon's two-hour written certification examination for members who have completed all other steps in the application process to become a Certified Golf Course Builder.

GOLF COURSE NEWS

Jack Nicklaus' addition to Reynolds Plantation opens

Great Waters GC hailed as challenging 18 for Georgia community on Lake Oconee

laus-designed Great Waters Golf Club at Reynolds Plantation on Lake Oconee opened July 11.

Great Waters, which takes its name from the English translation of the Indian word "oconee," is a par-72 layout stretching 7,062 yards from the back tees. The course features nine holes directly along or across the waters of the 19,000-acre Lake Oconee. Great Waters began accepting non-member play on July 20.

"All of us at Reynolds Plantation are ex-

GREENSBORO, Ga. - The Jack Nick- tremely proud of what Jack Nicklaus has created at Great Waters," said community president William Peacher. "We gave him a spectacular piece of land and he turned it into an even more spectacular golf course."

> Two holes in particular may claim more than their share of the accolades. One is the 11th, a par-4 of 358 yards from the back tees that plays downhill toward a green set on a peninsula. In fine-tuning the design, Nicklaus actually shortened the hole slightly in an effort to tempt the longer hitters to attempt the ultimate, driving the green.

The 18th, a 544-yard par-5 bordered along the left side by Lake Oconee, provides a dramatic finish. The long tee shot forces a decision whether to lay up to the right side, leaving a short third shot over a cove, or "go for it" in two in an attempt to score an eagle. For the bold player, however, getting home in two requires a long second shot that must carry the inlet of the lake as well as the distinctive grey stone wall that buttresses the green.

Complementing the course is an extensive practice area, complete with practice greens and bunkers.



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Banff area pushing for major golf development

By PETER BLAIS

S purred on by a provin cial government push ing for tourist dollars, 10 golf courses are planned within the shadow of legendary Banff Springs Golf Club outside Canmore, Alberta, Canada.

The biggest project is Three Sisters Resort, a proposed 72-hole golf course community that could add 12,000 residents over the next 20 years to Canmore, a 6,000-person township located just outside the gates of Banff National Park.

"The Wind Valley area is the chief concern," said Barry Gunn, a reporter with the weekly Canmore Leader. "It's an environmentally significant area. Three Sisters has focused its efforts there."

Public hearings before the recently formed Alberta provincial Natural Resources Conservation Board (NRCB) on the controversial project were scheduled to conclude in late July or early August.

To make certain both sides are heard and an environmentally sound decision made, developers are required to pay for both Environmental Impact Assessments as well as the expenses of interveners (those determined to be affected by the project) and their hired experts to testify before the NRCB, according to Canmore Director of Planning and Development Paul Bates.

Three Sisters developers have already spent about \$1 million on the project, Gunn estimated. The environmental group Earth First was among those granted intervener status, Gunn said.

If approved, the Three Sisters project would still need to be reviewed by local officials. What will happen there is a mystery since all six Town Council members are up for re-election this fall.

"The potential is there for all of them to be replaced," Gunn said. "Many people are upset with how they have handled things."

According to Bates, three of the Three Sisters courses were previously approved by the neighboring Municipal District of Big Horn. Canmore has since annexed the area. The town accepted Big Horn's approval of one course. But time limits have expired on the other two. Stop-work orders have been placed on those 36 holes, the subject of the recent NRCB public hearings. Developers have yet to submit an application for the fourth layout.

Other local projects include:

• Hyatt Regency Golf Course, an approved 18-hole layout owned by Canmore Alpine Development Co. expected to start construction in late summer or early fall.

• Mountain Meadows Golf Course, an 18-hole facility previously approved by the Municipality of Big Horn and annexed by Canmore. The time limit has ex• Kananaskis Guest Ranch, an 18-hole golf course and 50-stall recreational vehicle park located in Big Horn.

• River's Bend Golf Course, a planned 18-hole, 150-stall RV park in Big Horn.

• An 18-hole proposed course affiliated with the Kananaskis Country Golf Course, an existing 36-hole facility in Kananaskis Country, Improvement District No. 5. The disWhat the Resources board does with the Three Sisters project will be a good gauge of what's going to happen around here.'

— Paul Bates Canmore planner trict is managed by the provincial government. In late June, the planned facility became the first golf course project to go through the NRCB review process. Developers were still awaiting the NRCB's decision in early July.

"I don't think all the projects proposed will be approved," Bates said. "What the Resources board does with the Three Sisters project will be a good gauge of what's going to happen around here."

"There's a healthy split of opin-

ion within the community. Wildlife and the rivers are very important to many people. Some aren't sure golf courses are the best use of the land. Others don't like what they believe golf represents.

"But the Hyatt project got solid support. The course really seems to work with the land."

Canmore was mainly a coalmining town until the late 1970s. When that industry fell on hard times, tourism became the area's **Continued on next page**



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Banff region looks to attract hordes of golf-thirsty tourists

Continued from previous page economic lifeblood.

Real estate values have shot up the past decade, angering some residents and would-be residents opposed to Three Sisters and the 2,000 new homes it could add. A basic, three-bedroom home in the Canmore area has climbed to \$140,000, much higher than 10 years ago, Gunn said.

If growth continues, some fear Canmore could eventually mirror the town of Banff, a resort that rivals communities like Aspen and Vail, Colo., Gunn said.

"Banff looks like the West Edmonton mall without a roof," he said.

Kananaskis Country Golf Course was the first golf project to go before the NRCB, Director of Golf Brian Bygrave said. One golf course, no real estate and no re-zoning were involved. No one qualified for intervener status. Public hearings before the NRCB took four days. Some fear Canmore could eventually mirror the Banff, a resort that rivals communities like Aspen and Vail, Colo.

Three Sisters — with its four courses, 2,000 homes, resort hotel and re-zoning requirements for a portion of Wind Valley — was expected to take two months. "You can't compare the two projects," Bygrave said. "Three Sisters is a mega-project. Ours is a mini-project.

"Still, it was frustrating to have to go through that process since we are in an area that was already zoned for what we wanted to do. There was some opposition, but not much."

The same can't be said of Three Sisters. Big Horn Municipal Manager Sam Hall said the controversy surrounding the bigger project involves the perceived environmental sensitivity of Wind Valley; fears the hundreds of miles of abandoned coal mine tunnels that underlie the property render it unstable; and the fact that Three Sisters Calgary-based development company is not local.

"Some projects seem to get a lot of negative press and others don't," Hall said.

Attempts to reach Three Sisters officials were unsuccessful.

Perry Dye opens European office, inks first pact

DENVER, Colo. — Perry O. Dye Designs International, Inc., has broken ground on Dye's first project in Europe — Schloss Seltenheim Golf & Country Club near Klagenfurt, Austria.

The project will be a collaboration of Dye Designs, Kanovsky Golf Construction of Klagenfurt, and G.&G. Hauser Golf & Landscape of Vienna.

Dye will design the 18-hole championship golf course around a castle — Schloss Seltenheim — the baronial home of the Hapsburg family.

Dye will provide other services including construction supervision, shaping, and a maintenance consultant beginning with grow-in. The project will also include a nine-hole Romantic course and practice facility designed by Architect Ing. Gerold Hauser, president of The European Society of Golf Course Architects, and a clubhouse designed by Wien & Klimbacher.

With the establishment of a site office at Seltenheim, Dye expects to coordinate its other European business from this location.

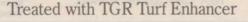
Legends opens North Course, readies South

FRANKLIN, Tenn. — The North Course at Legends Club of Tennessee opened for play June 27. The Club's South Course will open later this year.

Legends Club will be the permanent home of the Tennessee PGA, the Tennessee Golf Association and the Tennessee Golf Hall of Fame.

Legends Club of Tennessee is owned and operated by Kite/Cupp Golf Enterprises. Based in Atlanta, Ga., the board of directors of Kite/ Cupp Golf Enterprises is chaired by Robert E. Cupp and Tom Kite Jr.

Management of the clubs will be directed by the board of directors of Kite/Cupp Golf Enterprises, Inc., with their directions carried out by the club director. Members will be appointed to serve on the Clubs' Golf Committees to insure that they have teaching programs, tournaments, and events that actively promote the enjoyment of the game for the entire golf communities.



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total turfgrass program. For more information, contact him today. Or call 1-800-543-0006.



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Courses approved

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. When the planned courses are approved they will be listed again in this "Courses newly approved in the U.S." chart.

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

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

Under "Class" — R= Regulation; E=Executive; P=Par 3. Under "Work" - N=New; R=Renovation.

Location Colorado	Course Name	Туре	Holes	Class	Work	Contact
Denver	Kennedy GC	м	9	R	A	Richard Phelps
Georgia Rome	Berry College GC	D	18	R	N	Arthur Davis
Hawaii Kauai	Poipu Beach	N/A	18	R	N	Mark Dixon Ballif
Gibson City Oak Brook	Railside GC N/A	DD	18 N/A	N/A	ZZ	Gibson Golf Inc. DuPage Airport Authority
Kansas Lawrence	N/A	D	18	R	N	Jeff Gazaway
Massachusetts Stoneham	N/A	M	N/A	Р	N	Town Hall
Minnesota Owatonna	Hidden Creek GC	N/A	18	R	N	Midwest Golf Management
Missouri Savannah	Duncan Hills GC	М	9	R	А	Dave Ingersoll
Portland	Clear Creek Ranch	N/A	18	R	N	The Halton Co.
Virginia Brentsville	Bristow Manor GC	D	N/A	N/A	N	Bristow Manor Ltd. Partnership
Washington Bellingham Chelan	Shuksan GC Snowcreek GC	DD	18 18	R	ZZ	Golf Concepts Hale Irwin

Courses newly planned in U.S. and Canada

Location	Туре	Contact	New Mexico	
Alabama ——			Las Cruces	D
Gulf Shores N/A Tom Mason, Mobile		New York		
Madison	N/A	Willard Byrd	Manlius	D
Arkansas	1.		Mount Vernon	N/A
Hot Springs	M	Parks Dir. Cheryl Thornton	North Carolina –	-
Jonesboro	D	Adam Smith	Caswell County	Р
California	-		Ohio	
Desert Hot Springs		Victor Chartrand	Franklin	N/A
Marina	N/A	City Council	Lancaster	N/A
R'cho Palos Verdes	-	Pete Dye	Massilon	M
Redwood City	D	County Supervisors	Montville Twp.	N/A
Redwood City	N/A	San Mateo County Spysrs.	Oregon	
Stanislaus County	N/A	LSA Assn. of Point Richmond	Clark County	N/A
Temecula	D	Alex Michaels, Claremont	Reedville	P/D
Canada			Salem	N/A
Wolfe Island, Ont.	N/A	Matthews Group Ltd.	Salem	D
Colorado	-		Washington Cty.	N/A
Vail	D	Richard Phelps	Pennsylvania —	
Florida	-		Greensburg	N/A
Bonita Bay	P	Bonita Bay Properties	Latimore Twp.	N/A
Ocala	N/A	Marion County Commission	North Coventry	N/A
Orlando	M	Orange County Commission	Whitpain	N/A
Hawaii			South Carolina –	
Honolulu	N/A	Chalon International	Columbia	D
Indiana —			Tennessee	
Gary	M	Gary Park Dept.	Shelbyville	N/A
Louisiana			Texas	
Jefferson Parish	M	P.B. Dye	Austin	N/A
Michigan —			Corpus Christi	M
Ann Arbor	N/A	William Newcomb Assoc.	Laké Jackson	M
Emmet County	N/A	Matthews/Jorgensen Dev.	Port Lavaca	M
Muskegon	N/A	Norton Shores Plann. Comm.	Southlake	N/A
Missouri			Washington —	
Bridgeton	N/A	Lambert Fld Dir. Don. Bennett	Issaquah	N/A
New Jersey	1		Port Orchard	N/A
Bernards	P	The Hills Development Co.	Sammamish	N/A
Galloway Twp.	Р	Site Dev. Inc., Cherry Hill	Spokane	N/A
Galloway Twp.	N/A	Town Office	Wisconsin —	
Galloway Twp.	N/A	Renault Winery	Medary	N/A
Mullica Twp.	N/A	Hekemian & Co. Inc.	Merton	D
Vernon	N/A	John Lehman, Warwick	Racine County	D
			Waunakee	N/A



CIRCLE #128

D	Johnny Miller
D N/A	Earl Oot, Syracuse Sea-Van Investments
Ρ	Joe Poteat, Danville,Va.
N/A N/A N/A	Randy Saddler Richard Paulus N/A Tom Zupan
N/A P/DA D/A	Sheng Chi Cheng Tom Kite/Bob Cupp Larry Tokarski Peter Jacobsen Ken Bump
	Rees Jones Paul Pisula, Hanover Edward Gruber Toll Bros. Inc.
D	Dr. Larry Allen
N/A	Jess Rogers
N/A M M M A N/A	Billy Casper/Greg Nash City Mgr. Juan Garza City Council City Mgr. C.J. Webster Finger, Dye, Spann
	King Cnty. Env. Div. Ron Powers Taiyo Golf Dev. Co. Mike Moore, Puyallup
N/A DDZ/A	Mike Hutson MTS Golf Dev. Group Ives Grove Golf Links Golf Shares America Inc.

Mulligan nine looks to add through subtraction

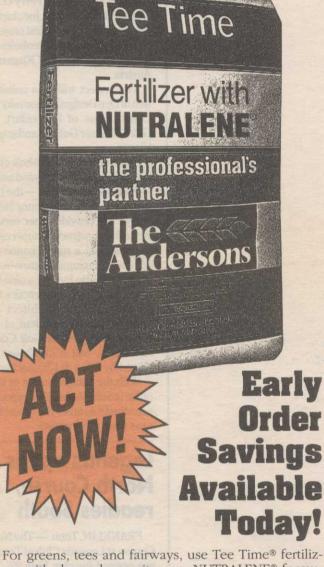
SLATERVILLE, Utah -There no longer is a 10th hole at Mulligan's Golf Course just north of Ogden, but the current nine-hole setup has length comparable to the previous yardage.

Two new holes, a par 4 and par 5, supplanted two short holes, and two par 3s became one dogleg par 4.

Jimmy Blair, Mulligan's owner/developer/professional, said land logistics meant the course had to be either ten or eight holes.

A new Mulligan's practice facility has opened in West Jordan, and the Mulligan's layout will expand to 18 holes within two years.

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Lenders may impose environmental liability insurance

Continued from page 1

past, "but it has not been routine," said Bill Love, a principal in the Maryland-based golf course architectural firm Ault, Clark & Associates.

"I can understand the reasoning. But I don't know what ramifications it might have on development. I can't see that amount of money stopping a project, although I know developers won't like it."

Denver-based environmental insurance company Eric Group Inc. helped design Fleet's program, according to Karen Scherger, Eric Group's communications director.

The policy, she said, will cover pre-ex-

isting conditions that went undetected before the loan was made; pollution that migrates onto or off from the property; and pollution caused by tenants.

At least 35 of the nation's 50 largest banks have indicated to the Eric Group they are considering requiring environmental liability insurance, Scherger said. So, too, have alternative funding sources like credit firms and mortgage companies.

"So far, Fleet is the only one to require it on a facility-wide basis," she said.

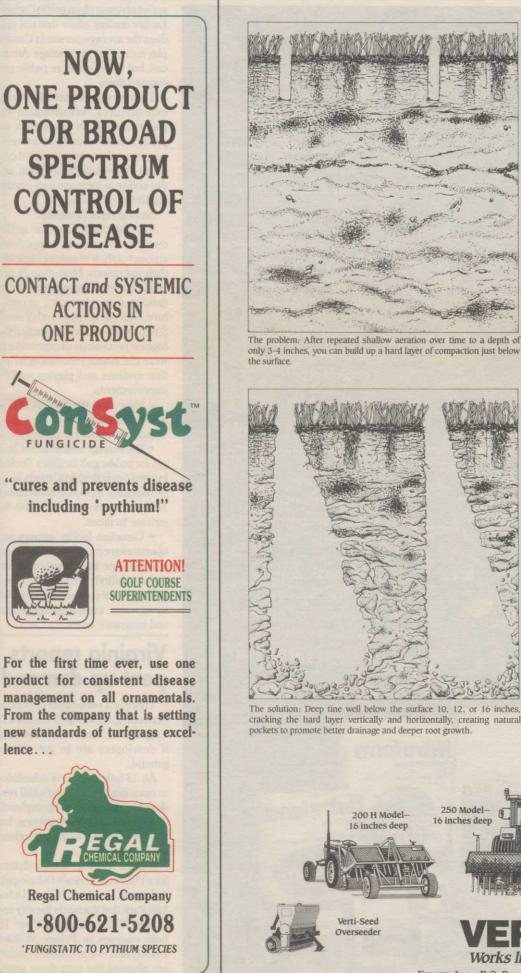
"We would consider a golf course as a qualifying project and require the insurance," said Fleet Vice President Joanne McClatchy. Fleet has not financed a golf course project in two years and considers courses "a discouraged credit," she added.

While the insurance policy protects banks in the event of foreclosure, the policy is primarily intended to shelter developers from getting burned for millions of dollars to clean up something they did not know was there, Eric Group Vice President Glen Sibley said.

Agriculture is an old industry known for running into undetected problems with leaking underground storage tanks or pesticide contamination. Golf courses are often built on former agricultural land. That makes golf developers an excellent audience for such a policy, whether a lender requires it or not, Sibley said.

Developers have used similar insurance policies as a substitute for an environmental indemnity clause in a sales contract, Sibley noted.

An environmental indemnity clause usually requires the seller to pay for cleaning up any pollution discovered after the developer buys the land. But such a clause may not stand up in court, or the seller may simply not have enough money to clean up the pollution. Unless he was insured, the developer would likely have to pay clean-up costs out of his own pocket.



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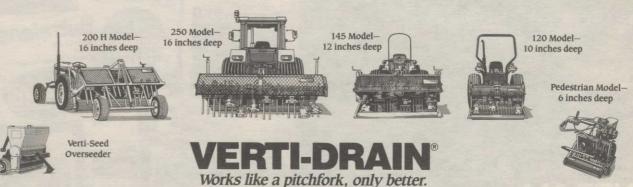
It is sometimes better to pull cores as opposed to solid tining. To be sure, the knowledgeable turf professional recognizes that selecting the appropriate aeration technique is a complex decision involving many factors. Fine textured soils, high sand-based soils, high silt and clay content soils all require special considerations regarding deep cultivation.

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CIRCLE #129

CIRCLE #139

DOGWOOD COURSE OPENS AT GARDEN VALLEY GOLF RESORT

Texas Golf Association Immediate Past President A.J. Triggs calls Garden Valley Golf Resort's new Dogwood Course "one of the premier courses built recently in Texas. Good design, unbelievable beautiful and a delight to play."

The 6,860-yard, par-72 layout, 75 miles east of Dallas, was designed by Sanford & Associates of Jupiter, Fla. It lies on heavily wooded, rolling terrain, along lakes, with water affecting 11 holes, and incorporates a variety of dogleg lefts and rights.



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Study: Average Canadian plays more than the average Yank

JUPITER, Fla.— Green fees are higher north of the border than in the United States.

The National Golf Foundation's new report on golf in Canada shows that the average weekend green fee at an 18-hole public facility there runs \$24.42 (Canadian) or about \$20 in U.S. currency, The average in the U.S. was \$16.44 in 1990.

NGF's survey of more than 1,700 facilities in Canada is the third in a series of research on golf in Canada. Earlier studies show that not only does the average person in Canada play more than the average American, but there are more public golf courses there.

The new report examines capital expenditures, maintenance expense, number of employees, capacity utilization, and how owners/ operators view environmental concerns, increased competition and the ability to increase fees impacting their operations.

Among report insights:

• A majority of Canadian facility owners reinvest an appreciable amount of their revenues back into their operations. More than 78 percent of survey respondents reported making a recent capital expenditure, with the average outlay about \$366,000 (Canadian). Attracting the highest percentage of expenditures were clubhouse renovation, irrigation systems and playing surface improvements.

• Since 1986, the average 18-hole weekend Canadian green fee at a public facility increased 52 percent.

• The average maintenance budget for public golf facilities (including semi-privates) in Canada is approximately \$115,300 (Canadian). This compares to \$370,300 for p;rivate facilities.

• Canadian facility owners and operators are most concerned about maintenance and labor costs and thneir abilityh to increase fees. Other ares of concern are availability of water, environmental issues and insurance costs.

Virginia reports pent-up demand

There is a consensus of pent-up demand for good golf courses in Virginia, but bankers must step up if developers are to get off the ground.

An 18-hole course is scheduled to open next year at Lee's Hill residential community in Spotsylvania County, near Fredericksburg, but there's a faraway look when others are mentioned.

A dollar shortage sidelined plans for a PGA of America's 18-hole public course on the 270-acre Union Mill Park that transects the city and Prince William County. Four 18hole courses in Prince William County and two in Stafford County are planned the next three years, the economy permitting.

GOLF COURSE NEWS



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Proposed wetlands changes would clarify definitions

Consistent with President Bush's Wetlands Protection Plan, which he issued last Aug. 9, the U.S. Environmental Protection Agency and the Army Corps of Engineers have issued a proposed rule they say would clarify and improve the wetlands regulatory program under Section 404 of the Clean Water Act.

The proposed rule would make three changes to the regulations. One would clarify the definition of "discharge of dredged material."

Another would clarify when the use of pilings in wetlands should be regulated. The third would codify that prior converted croplands are not regulated under Section 404.

The public has until Aug. 15 to provide comment to the agencies. "These proposed changes would

close a loophole in the Section 404 regulations that has allowed discharges of excavated material to go unregulated, resulting in the destruction of wetlands," said EPA Administrator William K. Reilly. "At the same time, we can ensure that some 60 million acres of prior converted cropland remains in productive use outside the scope of the Section 404 program."

The definition of "discharge of dredged material" would include discharges associated with landclearing, ditching, channelization and other excavation activities when those activities destroy or degrade wetlands or other U.S. waters. This proposed change would not affect the existing exemptions for normal farming, ranching and silviculture practices.

The agencies' current definition of "discharge of dredged material" excludes minimal, incidental soil movement occurring during normal dredging operations. Application of this language in the field has sometimes led to inconsistent results, they say.

For example, some small excavation discharges resulting from landclearing and drainage in wetlands have been excluded from regulation, even though the discharge was part of an activity that had significant effects on wetlands or other U.S. waters.

This proposal would continue to regulate only those activities that involve a discharge of dredged material in U.S. waters. EPA and the Corps believe the proposed revised definition of "discharge of dredged material" will improve regulatory consistency and wetlands protection.

The second proposed change incorporates existing Corps guidance on when the placement of pilings should be regulated. In the past, some development projects have been constructed on pilings in order to avoid Section 404 regulation, the agencies say. Under the proposal, pilings that support structures normally built on fill, such as office buildings and multi-family housing, would be regulated under Section 404 since the pilings serve the same function as "fill material." The third change would also incorporate Corps guidance issued in September 1990, stating that prior converted croplands are not waters of the United States and, as a result, are not regulated under the Clean Water Act. Prior converted croplands are areas that, prior to Dec. 23, 1985, were cropped and otherwise manipulated to the extent that they are inundated with water for no more than 14 days during the growing season.

Palm Harbor undergoing greens, tees renovation

PALM COAST, Fla. — Palm Coast's oldest golf course, Palm Harbor, is reconstructing its tees, greens and clubhouse.

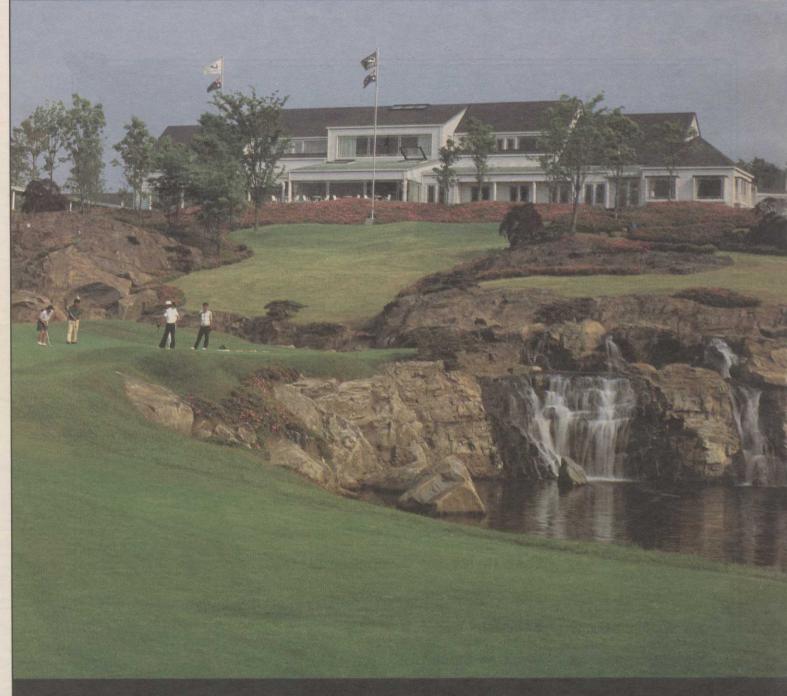
The course closed June 1 and is scheduled to reopen Dec. 1, according to Fred Kleinfelder, director of golf maintenance for SunSport Recreation. The ITT Community Development subsidiary operates Palm Coast's four golf courses, tennis clubs, marina and restaurants. All SunSport facilities are open to the public.

Palm Harbor's approximately 550 members have been offered full member privileges at either Cypress Knoll or Matanzas Woods golf clubs until Palm Harbor construction is complete. Matanzas and Palm Coast's fourth golf course, Pine Lakes Country Club, were designed by Arnold Palmer and Ed Seay, while Cypress Knoll is a Gary Player course.

The 6,572-yard Palm Harbor layout, designed by Bill Amick, opened its front nine in 1971 and back nine two years later.

Tifton Turf Farms, Inc., of Tifton, Ga., is rebuilding the tees and greens and restoring them to their original size. Kleinfelder said the work is necessary because hybrid Bermudagrass greens revert to unsuitable grasses after about 20 years, and tees and greens gradually lose their original shape and grade.

The Palm Harbor clubhouse expansion, being handled by ITT Community Construction, will put the pro shop, locker rooms and 19th Hole under one roof.



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Representative Projects: Dove Canyon Country Club, Orange County, CA; A Jack Nicklaus Signature Course • Tomisato Golf Club, Narita, Japan and Green Hill Seki Golf Club, Nagoya, Japan; J. Michael Poellot Golf Design Group • Kinojo Country Club, Okayama, Japan; Robert Trent Jones II • Wood Ranch Country Club, Simi Valley, CA; Theodore G. Robinson, Inc. • Art Lake Golf Club, Osaka, Japan; Golf Plan Incorporated • Rotary Golf Club, Kobe, Japan



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GOLF COURSE NEWS

CMX Golf formed

PHOENIX, Ariz. - CMX Group, Inc., a sports- and development-oriented engineering and project management company, has created CMX Golf.

Focusing on the golf engineering market, CMX Golf will facilitate and support design goals of the architect, coordinate owners' needs and integrate the course into the surrounding infrastructure.

It will be headed up by Darrell Wilson.

Graham signs for Indonesian project

PHOENIX, Ariz. - Former U.S. Open and PGA champion David Graham, along with Scottsdale golf course architect Gary Panks, have announced Scottsdale-based Graham/ Panks International has been retained to design a championship 18-hole layout in Indonesia.

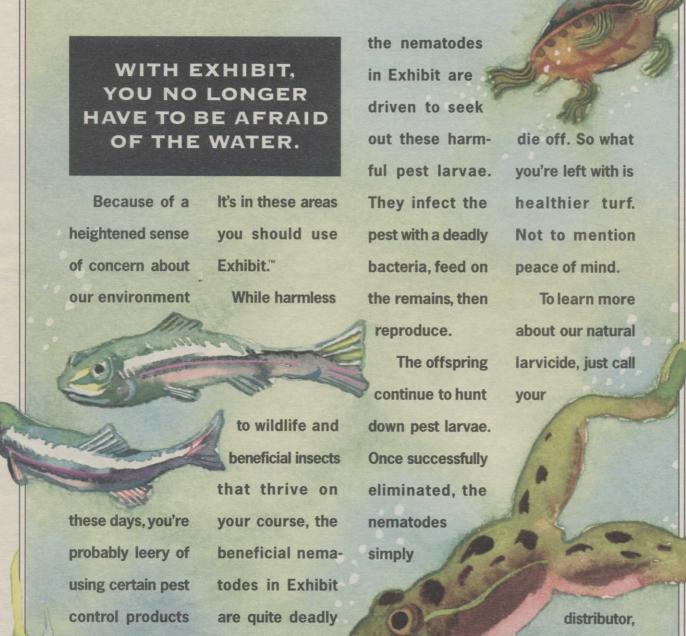
Located 24 miles southwest of the country's capitol city of Jakarta in the foothills of the Puncak Mountains, the Royal Jakarta Golf Club "will bring a whole new standard of golf course design to Indonesia," said Graham, a 20-year veteran of the PGA Tour.

"Indonesia has not seen much new golf course activity in the past decade," he said,

"certainly not of this caliber. We see a new trend developing. Indonesia is right on the heels of Thailand as far as its own golf boom is concerned. It will be the country to watch in the 1990s."

The Royal Jakarta Golf Club, scheduled to open in the fall of 1993, is being developed by P.T. Fajar Marga Permai, headquartered in Jakarta.

The site consists of 1,300 acres of rugged, hilly terrain in a tropical rain forest just south of the Equator. Master-planned for an elaborate golf course resort and residential community, groundbreaking is expected early this fall



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EXHIBIT

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Industry research Continued from page 10

but 3) is what gives an industry longevity," said Wilkinson. "Companies should start funding 3) and try to do 1) and 2) themselves.

"The bottom line is the industry needs to understand what will keep them on the cutting edge. More and more they'll have to pay for their futuristic research."

Some segments of the golf industry already employ these tactics. Many seed companies farm out their futuristic research to universities while tackling the practical and demonstrative research in-house. This is manageable for larger companies with the resources to fund inhouse research projects.

It's not so workable for the smaller firms.

"You can't take a small company and expect it to create that kind of research facility," Wilkinson admitted. "If you're a small company, you have to really focus your research dollars.

"Because if you don't develop it, you'll have to buy it."

Golt not insulated Continued from page 10

down the road a shopping mall, complete with acres of hot-top parking, went through the public-hearing process with nary a word of distaste.

Wouldn't it be wonderful if more of the general public thought of golf courses as Brendan Gill does? In the August issue of Architectural Digest he writes: "Golf courses are among the most pleasing objects that man has fashioned out of nature - in the arts jargon of our day, they are sculptural earthworks that happen also to function well in ecological terms, shielding from the gross asphalt intrusions of suburbia several million acres of grass, trees, ponds, streams and wetlands. As for tennis, from an aesthetic and ecological point of view it is virtually a cipher."

Oh, for more Brendan Gills in the world. Instead, we have people with no eyes to see, ears to hear, or hearts to receive the truth.

We have people who are quick to verbally assassinate a politician with the audacity to speak out against a rap singer who espoused the idea that black people should kill white people. How dare he? they asked.

We have people who loot even the businesses that have paid their wages.

We have roving gangs in the streets.

And, no, the golf industry is not insulated from insanity in this society of bizarrity.

Three years ago the late Don Rossi, then-executive director of the Golf Course Builders Association and former head of the National Golf Foundation, told me vandalism was a major problem on golf courses. And that was before the new era of hard-nosed, club-wielding, no-reason-needed rioters.

So, watch out, say your prayers, for you never know when this violence is coming your way.



near water or wooded areas.

to the cutworms, billbugs, and sod webworms that destroy it.

> Due to their parasitic nature,

DEVELOPMENT

GCSAA, McLoughlin settlement resolved

tee approved the letter, the judge

"Under these circumstances,

we believe the defendant may be

charged with knowingly or reck-

lessly disregarding the falsity of

In its appeal of the jury's judg-

ment, the GCSAA said accusations

of financial records being stolen

were untrue, and that McLoughlin had himself re-

moved records from the head-

the statements in question."

cording to court records.

wrote, adding:

Continued from page 6 and just let go.'

Speaking of the McLoughlin suit - one of four the GCSAA has lost in recent years - Ochs added, "Certainly with any major piece of litigation, it gives one a comfort level to have yesterday's business done."

He said "under no circumstances" would GCSAA members be assessed to help pay the bill, adding that "a substantial amount of insurance company money went into this (to pay) for the judgment."

For his part, McLoughlin said: "It's not a question of being pleased it's over. I'm primarily pleased because of the results which totally exonerate me and other good staff members at GCSAA at the time."

In his post-trial ruling on GCSAA's appeal of the verdict, Judge Rogers reaffirmed the jury's unanimous findings of several instances of "reckless and intentionally false" statements that had been made against McLoughlin.

Rogers wrote that attacks against McLoughlin began while he was executive director, when "a secret coalition of GCSAA members authored a paper which was distributed prior to the 1983 GCSAA convention.

"This document was an obvious attack against the financial management and leadership of plaintiff, particularly to the degree that plaintiff was identified with an effort to relocate the headquarters of GCSAA.'

The judge said GCSAA witnesses acknowledged that a deposition on McLoughlin's financial leadership was misquoted, and added:

"There was sufficient evidence for the jury to infer that the misquotation was recklessly or intentionally made, instead of being the result of negligence."

Rogers also mentioned three statements the GCSAA attorney submitted to the jury asserting that McLoughlin had checks written to himself for travel expenses or other items without sufficient documentation or prior approval to support such reimbursement.

"This information came from John Schilling, the successor to plaintiff as the executive director of defendant," the judge wrote. "There was evidence indicating that Mr. Schilling had animosity toward plaintiff. There was also evidence from plaintiff and Terry Ladesic, an accountant or business secretary for GCSAA, upon which a jury could reasonably find that these statements were recklessly or intentionally false ... "

Rogers went on to say Schilling gave this information to then-President James Timmerman, knowing Timmerman would relate it in a letter to another former president, James Wyllie.

The jury found several statements in the letter libelous, ac-GOLF COURSE NEWS

quarters. The GCSAA executive commit-

But the judge said this statement "came from information supplied by John Schilling.

There is evidence in the record from which the jury could decide that this statement was intentionally or recklessly false.

"In sum, we find there was evidence to support the jury's finding of malice in connection with the verdict upon plaintiff's libel claim."

Schilling did not return phone calls regarding the case.

Hills designing third 18 at Bonita Bay

BONITA BAY, Fla. - Bonita Bay plans to offer its members 54 holes of golf, building its reputation along with Bay Island, a third championship golf course built using nine holes of the existing Marsh course.

The Marsh, opened in January 1985, will be split, with nine new holes added to the back nine to create Bay Island, and nine new front holes built to recreate The Marsh.

Construction of the new course should begin in the spring of 1993, and Arthur Hills, who designed the other two courses, has already begun the design for the 18-hole course.

Like The Marsh and Creekside, the new course will complement the natural features of the Bonita Bay property.

A wetlands slough will frame many of the new holes and a few holes may have views of Estero Bay.

There will be a nice balance of lengths among the course," said Hills

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Photo courtesy of Nat Binns, golf course superintendent, Lakewood Country Club, Rockville, Maryland. (unretouched photo) Actual side-by-side comparisons prove . . .

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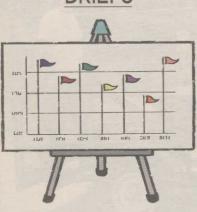
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BRIEFS



CASPER GOLF RETAINED AT SWAN POINT

VIENNA, Va. - Billy Casper Golf Management (BCGM) has been retained by USX Realty Development for its Swan Point Yacht and Country Club project in southern Maryland. BCGM was originally retained to do a thorough membership feasibility study for the club. As a result of the membership development program designed by Casper, USX retained the golf management firm to implement the membership program. Swan Point is an 18-hole championship golf course that was redesigned three years ago by Bob Cupp. *****

NORK TO MANAGE CLUB FOUNDATION

ALEXANDRIA, Va. - Mariana Nork has been appointed manager of The Club Foundation, formerly the Club Management Institute Foundation. She will act as a liaison for the foundation's board of governors and direct the foundation's national "Campaign for Excellence." Nork was director of development at the National Museum of Women in the Arts in Washington, D.C., where she directed corporate and major donor solicitations; initiated longrange planning; and designed and implemented a planned giving program.

HICKMAN HIRED ON AT BROADMOOR

Bob Hickman has been named director of golf operations for the Broadmoor in Colorado Springs. A PGA Master Professional with 40 years experience under his belt, Hickman is a former director of golf at Medinah Country Club outside Chicago.

DEL GIORNO NAMED GM AT FORSGATE

JAMESBURG, N.J. - Michael Del Giorno has been appointed general manager of Forsgate Country Club. Del Giorno brings more than 22 years of experience in the hospitality industry to the position. Prior to joining Forsgate, Del Giorno since 1989 served as general manager of the Holiday Inn-Center Point, off Exit 8A of the New Jersey Turnpike. Both properties are owned by Matrix Development Group and managed by Benchmark Hospitality Company.

HOPKINS MOVES UP AT RIVERSIDE

JACKSONVILLE, Fla. - William Hopkins has been named director of golf operations for Riverside Golf Group, a full-service golf course development and management firm based in Jacksonville. In his new role, Hopkins will be responsible for overseeing the day-to-day operations at golf courses across the Southeast. Hopkins will also play an integral role in the new acquisitions process for Riverside.

Maintenance for hire: Best of both worlds? Payroll woes solved at municipal complex



ISS Golf Services superintendent Jim Gorman (top right) reviews pesticide application with trainee Ken Gokey. In photo below, Jim Riesenberg of Cincinnati shows off his barnstorming equipment.

Marshall, Riesenberg barnstorm with personal HydroJects in tow

By PETER BLAIS

Peter Marshall was 56, without a pension plan and wondering what he was going to do about retirement when a Toro representative demonstrated the HydroJect Aerator last fall at Portland (Maine) Country Club.

Superintendent Pat Lewis was impressed with the water-injection aeration system and talked about renting one the next spring. That got Marshall think-

ing "I called a few

people down in Boston and Cape Cod," the former Portland CC maintenance employee recalled. "They had bought HydroJects and were doing very well subcontracting

their services to local golf courses "No one was doing it in Maine.

Five added to

city athletic clubs.

the border in Canada.

for CCA in 1992.

Club Corp. fleet

its growing national and interna-

tional roster of city, country and

the Capital City Club in Columbia,

S.C., and signed four management

agreements, which included the

With these additions, the num-

ber of new agreements totals 10

During May, CCA purchased

So I called a few superintendents, found out they were interested and decided to take a chance."

Marshall took out a \$40,000 second mortgage. He bought a HydroJect, truck and trailer. He advertised in golf publications, rented a

booth at March's Maine Turfgrass Conference and called on local superintendents. "I'm booked solid," he said in early June. "We're

way ahead of projections." Suddenly, a more comfort-

able retirement is at hand for the Freeport resident.

Entrepreneurs, Marshall and Cincinnati's Jim Riesenberg, have found profitable niches in the maintenance-for-hire business. Both Continued on page 40



By PETER BLAIS

others had 25 years.

When Ray Grady signed on as general manager in early 1989, the 45-hole Bobby Jones Municipal Golf Complex was losing money, the city was going broke paying the debt service on renovations, and the facility was in generally poor shape, despite a high maintenance budget.

One maintenance worker had 45 years on the Sarasota, Fla., city payroll. Three

"You had workers making enormous sala-

ries for basically driving a tractor," Grady

recalled. "They knew nothing about chemi-

cal application. Some couldn't even read and

write. We had an extremely high payroll for

Grady decided it was time to hire a golf

Continued on page 42

course maintenance company, an outside

the quality of work we were getting."

Ruling ensures equal-opportunity tee times

By HAL PHILLIPS

A Michigan ruling could change the way golf clubs nationwide organize their weekend tee times. Gov. John Engler recently signed his name to legislation giving women equal access at private clubs and to all the amenities offered by those clubs. Its effect is this: Clubs may no longer keep women from teeing off at certain times or exclude them from areas such as all-male bars and restaurants.

Violations will be reported to the Civil Rights Commission, and if discrimination is found, the club could lose its liquor license. State Sen. Lena Pollack, who proposed the bill last year, believes the new law is anything but a paper tiger.

"If they don't change their rules, they can try operating on dry premises," Pollack told the Detroit Free Press. "This is overdue. You wouldn't hang out a sign that

says African-American members cannot play golf at this time ... yet we still say women cannot."

State law has for some time outlawed discrimination based on race, gender, height, weight or marital status. Yet many clubs skirted this issue by claiming they were private. However, the new law signed in late May - categorizes most of the state's 1,092 private clubs as public. A club claiming it was private would encounter several obstacles in court, especially if it has restaurant or banquet facilities, allows guests, or has members whose dues are paid by employers.

Tee time discrimination isn't a charge exclusive to private clubs, nor is it leveled by women only. Senior citizen groups have voiced their dissatisfaction with tee time schedules, claiming they've been denied prime weekend slots.

'I'm booked solid. We're way ahead of

projections.'

- Peter Marshall

MANAGEMENT

New publication tracks trends in daily fee, resort management

Golf course managers and operators take heed: A recent publication warrants your attention.*Trends in Resort and Daily Fee Golf, 1992 Edition* is a statistical review incorporating operating and financial data on approximately 100 daily fee, resort and semi-private golf courses throughout the United States. The data used in this edition was compiled from the year ending Dec. 31, 1991.

This publication is designed as a reference and management/ operational aid for golf course operators and others in the golf industry. It shows results in the following categories: revenue per round, average income and expenses, golf course maintenance expenses, maintenance costs per hole, and average expense variations 1991 vs. 1990.

The results are reported by region and by type of course: resort, daily fee, semi-private. Pannell, Kerr, Forster, an international consulting firm, worked with the National Golf Course Owners Association (NGCOA) in developing the survey, collecting the results and putting together the report.

According to Mike Hughes, executive director of the NGCOA: "It details the actual financial results of a large number of daily fee operations. Now for the first time a golf course operator can compare their operations with others, both on a national and regional basis."

This report, especially when used with the NGCOA's Uniform System of Accounting for Daily Fee and Resort Golf Courses, allows the direct comparison of financial information between operations.

The Uniform System encourages the uniform categorization of revenues and expenses, plus the uniform presentation of financial statements to maximize the management information available to the operator. Most large and many smaller operators have already adopted the system.

The *Trends* report sells for \$50 to members of the NGCOA, \$75 to non-members. The *Uniform System of Accounting for Daily Fee and Resort Golf Courses* sells for \$20 to members, \$30 to nonmembers. To order either, call 1-800-933-4262.

Barnstormers Continued from page 39

men are former golf course maintenance professionals who have bought Toro HydroJect Aerators.

"I've got 10 to 15 golf courses lined up for June, July and August," said Riesenberg, former head superintendent at Cincinnati's Hyde Park Country Club. "Superintendents seem to like it better every time I do their courses. A lot of people who signed up for one visit this year are asking me to come back three times next year."

Both men have an assistant. Riesenberg said he can do 18 greens in as little as 14-1/2 hours. Marshall said he has done 15 greens in a single day, but prefers to do no more than nine because of the distances he must travel and set-up time.

Marshall charges 1.5 cents per square foot. Riesenberg's squarefoot rates vary from 0.8 cents 1.25 cents, depending on the total area.

Both men do their own maintenance on the machines to hold down costs and reduce down time. "You have to replace the water filters every 25 to 30 hours," Riesenberg said. "They cost about \$15 apiece. I've learned to bring along a couple of extras just in



Peter Marshall and his trusty, portable HydroJect.

case something goes wrong. The biggest problem can be the quality of water you pump out of the lake to use in the machine."

Both men want to expand their operations. Marshall would like to buy a second machine. Riesenberg hopes to add deep-tine aeration to his HydroJect services.

"The only thing I wish is that I'd started marketing last fall when courses were setting their budgets rather than waiting until January," Riesenberg said.

While golf courses are their primary customers, the two have found other clients as well.

Bowdoin College in nearby

Brunswick has contracted with Marshall to service its football field. The University of Maine was planning to monitor Bowdoin's results and could sign up as well, Marshall said. Several Portland CC members with oceanside homes have asked Marshall to aerate their lawns. He has also done lawn bowling and croquet fields.

Riesenberg said he has likewise serviced lawns and athletic fields.

As for Marshall, you'll probably find him draining long putts on those lush Maine greens when retirement beckons 10 years down the road.

When it comes to covering a lot of ground, the competition isn't the only thing

The ups & downs of regional buying

Somewhere between group and individual buying lies the purchasing hybrid of regional buying.

Management companies with a geographic concentration of courses have for years purchased chemicals on a regional basis. The same goes for sand and top-dressing - any maintenance need nearby courses might have in common.

If enough courses share needs, and the distance isn't too great, regional buying makes sense.

And with the advent of technology like the Hydroject and Verti-Drain, management firms have seen fit to buy one or two per region. The different courses can then schedule usage on a communal basis.

However, there are pitfalls.

"One of the dangers with this regional idea is you start getting into the trucking business," said Mike Heacock of American Golf Corp. "If you share too much, you need a fleet of trucks to keep up. We don't want to be in the trucking business - we're in the golf business.

"Butit can save you a lot of money. Not every course needs its own

Course owners explore intricacies of group purchasing

Continued from page 1 fashioned independence.

"Superintendents and club managers aren't used to being told what to buy," according to Mike Heacock, who administers centralized purchasing for American Golf Corp. "But it doesn't make sense for our 36 courses in Southern California to use different sand. So you've got to get everybody in a room and hash it out.

"This is why golf course superintendents associations aren't purchasing organizations. People can decide they don't want to spend as much this year, then someone else backs out and the deal is dead. What are you going to do? Sue them?"

The NGCOA recently entered into a partnership with Truck Centers, Inc., whereby NGCOA members can purchase GMC vehicles at a savings of 2 to 7 percent, depending on the option package. The NGCOA and its 1,1125 members have also arranged for volume deals with U.S. Sprint and Alamo rental cars.

Negotiations are underway on purchasing the following products in bulk: golf cars, maintenance equipment, golf course chemicals and uniforms. The job of negotiation falls to NGCOA Executive Director Mike Hughes.

"Because of our size, we've been received well by manufacturers," said Hughes. "What we've tried to do is concentrate on the 10 or 15 items that are most

It takes a long time to make these agreements work. It also takes time to convince people in your own company it's the right thing to do.'

- Mike Heacock, American Golf Corp.

significant on the expense side of the ledger. But we've really just started."

It's a long process, according to management company executives. Kemper Management, for example, didn't begin concentrating on group buying until three years ago — and the strategy is still evolving.

"We certainly haven't been doing it since day one," explained Steve Lesnick, president and CEO at Kemper. "You have to be a certain size to make it worthwhile. We're large enough now (14 clubs nationwide) that we can get the type of buying power that a group buyer can realize.'

Further, added Heacock, "It's not an easy deal. Everybody wants to do it, but the mechanics are very difficult. There are potential savings out there, but you have to manage it.

"It takes a long time to make these agreements work. It also takes time to convince people in your own company it's the right thing to do. Another problem is that local management maintains the responsibility. They're the ones that have to make it work — yet they're also the ones whose decision-making responsibilities have been curtailed."

Heacock is quick to point out the potential hazards, but there's no denying the savings. At one point, American Golf had been using 26 different kinds of paper cups, "Which is crazy," said Heacock.

AGC had been buying rakes on a local basis. Now the firm buys them centrally for its 136 courses in 23 states - at a savings of 15 to 20 percent, according to Heacock.

Kemper buys its chemical and heavier equipment in bulk, as does AGC. In fact, American Golf has entered into several long-term exclusive contracts for golf cars, mowers and seed.

The value of such a deal is not so much the price savings. The real value lies in allowing companies like AGC and Kemper - no longer hostage to distributors — to deal directly with factories.

"This allows us to go way beyond price," Heacock explained. "It comes down to a question of 'How does, say, Toro support American Golf?' and vice versa.'

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Maintenance companies hired on

Continued from page 39

firm paid to maintain the facility for the city. To avoid any political backlash, Requests For Proposal (RFP) required the maintenance company to offer employment to all course employees. If the employees refused, which the four senior staff members eventually did, they were offered transfers to other city departments, keeping their benefits intact.

"Things couldn't have worked out better," said Grady, who settled on Tampa, Fla.-based ISS Golf Services following a nationwide search.

The complex is making money. And it is in much better shape, he said, following

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spiking holes in a 3 foot width.

ISS renovations and additions that included flower beds, irrigation lines, rebuilt bunkers, new distance and out-of-bound markers, upgraded equipment and improved maintenance practices.

ADVANTAGES AND DISADVANTAGES

Golf course maintenance companies have been around for some time. ISS, which maintains 144 holes in Florida, has been in the business 10 years. California-based Environmental Golf took over DeBell Golf Course in Burbank 15 years ago and has since added two more courses for a total of 72 holes.

Professional Turf Managers Inc. of Lake-

land, Fla., (72 holes) and Serviscape of Michigan City, Ind., (27 holes) are two other experienced firms.

Generally, a maintenance company hires all employees (including the superintendent), provides most of the supplies and equipment and plans for future maintenance projects.

ISS Business Development Manager Steven Sanford said contracting maintenance services has several benefits for owners and managers, including:

• Fixed maintenance costs that are adhered to throughout the year.

• The ability to do additional projects bunker renovation or fairway aerification for instance — with special work teams employed by the contractor.

TERRA SOFT BROOM

• Access to expensive, occasional-maintenance equipment an individual course cannot afford, but a maintenance company can share between several facilities.

• Reduced liability exposure since employees work for and equipment belongs to the maintenance provider.

• Increased efficiency of operating in a competitive business environment.

"Boards of directors, pros and clubhouse managers may change. But by employing a maintenance company, at least the course quality stays consistent," said Serviscape President Peter Sinnott.

The disadvantage, at least from the existing crew members' viewpoint, is they may lose their jobs.

"We encourage the existing staff to make an application with our firm to continue employment at the same course," Sanford said. "When an existing employee is hired, it has proven mutually beneficial for the employee and our organization.

"We hope superintendents look upon the golf course contracting industry as an opportunity for growth and career advancement."

Salaries can also be affected.

"Sometimes pay and benefits have to be downgraded, especially with a municipal agency," said Bob Schofield, Environmental Golf's vice president of golf management.

Surrendering control is the biggest fear of owners, according to Schofield.

"Maintenance can be a very personal thing to an owner or board," he explained. "As homeowners, they have no problem hiring a landscaping company to maintain their lawns and ornamentals. But giving up maintenance control of their golf course can be a completely different matter...Still, no course has turned us down because of the control issue."

Control can sometimes work in the maintenance company's favor. An owner with personal or hired expertise in the pro shop or food and beverage operations may want to retain control in those areas, but is happy to turn over maintenance to an outside expert, Schofield added.

STEADY GROWTH SEEN

Management companies that run the entire golf operation, like American Golf Corp. and Club Corporation of America, have experienced tremendous growth in the last decade. Maintenance-only firms report a far less spectacular increase.

"I don't see maintenance companies taking over the golf market, but enjoying a steady growth," said Professional Turf Managers President Jim Sartain.

Tougher environmental, disability and employee laws are headaches owners will increasingly want to turn over to outside companies, Sartain predicted.

Municipal as well as low- and mid-priced daily-fee facilities looking to maximize profits are best suited for contract services, Sinnott said.

"I wouldn't rule out high-end daily-fee or private facilities. But private courses, at least, don't have the same profit motivation," he added.

A detailed RFP is the key to selecting the right maintenance company, Grady said.

"The more rigid the RFP, the better," the Bobby Jones general manager advised other managers and owners. "If the club says it will spend \$700,000 annually on maintenance, everyone applying will say they can stick to it. Make them specify what they will do for that money."



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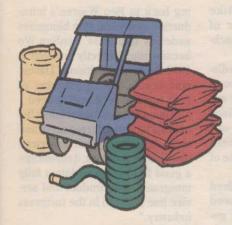
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BRIEFS



AMERICAN PRIDE TAPS RUSELOWSKI

MCPHERSON, Kan. - American Pride Golf Products, manufacturer of golf cars and accessories, recently named Pete Ruselowski as national sales manager in charge of golf car sales. "Pete's been selling golf cars for 21 years. Most people will remember him from Columbia Par Car," noted Rex Whitehill, American Pride president. "He has a reputation for taking care of his customers, on price and service. That will certainly continue, now that he's with American Pride."

BRYANT TO DIRECT PSI SALES

Dallas-based Pumping Systems, Inc. has appointed Bob Bryant director of sales. In his new position, Bryant will be responsible for maintaining customer relations and supervising sales promotion through PSI's world-wide sales and distribution network. He will also provide factory-level support to designers and specifiers of golf course and other turf irrigation systems.

..... FOLEY JOINS WEATHER-MATIC

DALLAS - Weather-matic has announced the appointment of Foley Flo Marketing as the regional sales representative for Weather-matic's Northeastern territory. The principals of Foley Flo are Bryan Foley and Steve Bridgewater. Foley Flo will assist and support distributors, contractors and specifiers.

API RELOCATES

Agricultural Products, Inc., has announced its relocation to a new, larger manufacturing facility in Ontario, Calif. Located near the junction of interstates 60 and 15, the new plant is approximately two miles from Ontario International Airport. The new location will provide room for API's ongoing expansion of their drip irrigation fittings, accessories, tubing, filter lines and other waterhandling products.

GIRARD MOVES UP AT RAINBIRD

GLENDORA, Calif. - Jackie Girard has been appointed senior marketing and customer service clerk for the Golf

Division of Rain **Bird Sales** Inc In her new position, Girard will be responsible for handling field inquiries and expediting all requested information. Prior to joining the golf team,

GOLF COURSE NEWS



Girard worked as an accounts payable processor for Rain Bird Corporate Services.

Composting makes sense; but will it make money?

By HAL PHILLIPS

Spurred on by necessity, the commercial composting industry is poised to make a lasting impression on golf courses interested in organic fertilizer, peat-substitutes and mulch products.

• In the case of J.C. McMaster, an impression has already been made. More than 160 golf courses in Texas and the Southeast have used McMaster's Rice Hull Compost in rootzone mixtures designed to meet those guidelines recommended by the United States Golf Association Green Section.

 During a recent symposium in Ohio, researchers reported instances where composted materials actually contributed to disease supression in bentgrass.

 And as landfill space dwindles across the nation, Ohio-based O.M. Scott Co. and Pennington Seed of Madison, Ga., have

each created composting stations where grass clippings, leaves and brush are removed from municipal dumps, decomposed, and sold to golf courses, farms and landscaping operations.

'What we've seen across the nation is an effort to reduce the amount of leaves and brush, yard trimmings and grass clippings in the country's landfills," explained Dr. Clark Gregory, better known as "Compost Man" to his faithful followers. "Municipalities have a responsibility to deal with this stuff when it's left on the sidewalk.

"Projects like these are especially interesting for golf courses because these materials tend to help water quality because of the slow-release nature of the product. Eventually, they could reduce dependence on inorganic fertilizer.'

Golf courses constitute an intriguing case Continued on page 46



LAYING THE GROUNDWORK

The TC4 Stitcher, new from Vermeer Manufacturing Co., is one of many new products featured in this month's issue. See pages 48 and 49.

Werner replaces retiring Wehner at Miles

Hermann Werner

PITTSBURGH — After more than 40 years of service, Heinz K. Wehner, executive vice president of Miles Inc. and president of its Agriculture Division, retired June 30. Succeeding Wehner is Hermann R. Werner.

Wehner began his career with Miles' Germany-based parent company in 1951 in his hometown of Lima, Peru. Successive promotions in Peru and Mexico brought him to Kansas City, Mo., as director of marketing for the Agricultural Chemicals Division of the former Mobay Corp.

head of both the Agricultural and Animal Health divisions in



Heinz Wehner

Kansas City and was named to the company's board of directors and executive committee.

Concurrent with the formation of Miles last Jan. 1, Wehner was named president of the company's Agriculture Division. The division encompasses the Crop Protection/ Specialty Products, Animal Health Products, and Consumer Household Products.

Werner joined Miles' parent company in 1953 and has held increasingly responsible management positions Germany and South America. In 1986, he joined the former Mobay Corp. as vice president and general manager of the Dyes, Pigments and Organics Division.

RISE Annual Meeting set for nation's capital, Sept. 12-14 WASHINGTON, D.C. -

RISE (Responsible Industry for a Sound Environment) will hold its Annual Meeting Sept. 12-14, at the Ritz Carlton Tysons Corner Hotel in McLean, Va.

"We anticipate highly productive and informative sessions covering current issues of keen interest to those involved in the specialty industry," said RISE Chairman Wil-H. Culpepper, liam commercial director of Specialty Products at DowElanco.

"This year's theme - Rising to the Challenges, 1992 reflects our commitment to address the concerns we are facing on the legislative and regulatory fronts and to become more proactive in promoting the benefits of our industry's products."

The first general session, "Where the Industry is Going," will include a panel discussion with EPA officials on the turf



ConSyst passes muster with EPA — finally

By HAL PHILLIPS

ALPHARETTA, Ga. - For the people at Regal Chemical Company, the long wait is over.

Four-and-a-half years after submitting the fungicide ConsSyst for federal inspection, the Environmental Protection Action finally granted approval in June. The EPA has never been known as streamlined bureaucracy, but the wait on ConSyst may have graduated from merely annoying to ridiculous.

"It was just one big paper trail," said Regal Vice President Will King. "It really shouldn't have taken more than about one-and-a-half years. But these things happen.

"At one point we were about three months away from approval and the data requirements were changed. That added about six months to the process."

ConSyst is designed to exhibit both contact and systematic actions in a single product. It is labeled for use on all types of ornamental Continued on page 47

> insecticide "cluster" analysis for benefits and granular effects. The second session, "Where RISE is Going", will concentrate on the association

plans for the coming year. Jon Stossel, ABC News 20/20 environmental reporter, will provide the banquet address entitled "Fear and Safety: Is Consumer Protection Out of Control."Congressman Charles Stenholm (D-Texas) will also address the audience on legislative issues.

"As we begin our third year of operation," said RISE Director Allen James, "we plan to focus on educating our attendees on current activities affecting our industry as well as receiving their input on programs RISE should develop in the future."

For further details and registration information, contact RISE at 202-872-3860, or write RISE, 1155 15th St., NW, Suite 900, Washington, D.C. 20005.

In 1990, Wehner became

SUPPLIER BUSINESS

Jacklin cultivates relations with Chinese turf industry

POST FALLS, Idaho — Jacklin Seed Co. has announced it will donate seed testing equipment to the Seed Testing Laboratory of Beijing Agricultural University.

The laboratory, valued at more than \$7,000, includes a MI S-100 Microscopic Inspection Station, a Unitron ZSM Microscope, and a 150W halogen fiberoptic light. The state-of-the-art equiment package was custom manufactured by Hoffman Manufacturing Company of Albany, Ore.

The donation was made in recognition of Beijing Agricultural University's position as the leading grass seed testing facility in China. Further, the equipment will assist with the development of seed testing standards and procedures which will be standardized with United States rules, thus facilitating joint seed trade between China and the U.S.

The donation was made during a recent trip to China by Jacklin Seed research and marketing officials. During the same trip, Jacklin was selected to be the first honorary international member of the China Pratacultural Association (CPA).

In selecting Jacklin, the CPA cited the firm's participation in and contribution to forwarding Association goals. The CPA composed of more than 6,000 producers and marketing companies involved in seed production and reclamation throughout China is dedicated to controlling China's seed quality standards.

Lisa Dacey and Rick Miller have joined the Domestic Marketing Department at Jacklin Seed Co.

Dacey comes to Jacklin from Eastern Washington University, where she served as program manager for External Professional Development programs. Her ex-

ITODA names Davis executive director

The Independent Turf and Ornamental Distributors Association (ITODA) has announced the appointment of Robert H. Davis as its first executive director.

The two-year-old, non-profit incorporated association, representing independent distributors whose total annual chemical purchases exceed \$45 million, required professional management to guide its growth and expanded agenda, according to ITODA President Herbert Lea of Lea Green Meadows Inc. of Temple Hills, Md.

Davis comes to ITODA with more than 17 years of association management experience and will provide ITODA with a base of operations just outside Washington, D.C. For more information on the ITODA, call1-703-360-2554.

perience includes extensive public relations work plus advertising account management with the Spokane-based firms of WhiteRunkleZack and Gross-Hatch & Associates.

Miller recently received his certification from Pennsylvania Life Insurance Corporation in Coeur D'Alene, Idaho, where he specialized in outside sales and account management.

Turf Merchants sold to Warren's Nurseries

The Genesis Group has reached an agreement in principle to sell its wholly owned subsidiary, Turf Merchants, Inc., to Warren's Turf Nurseries of Crystal Lake, Ill.

From the company's headquarters in Tangent, Ore., TMI General Manager Steve Tubbs explained that "customers and growers should expect 'business as usual' in their dealings with TMI." Management, sales and operations personnel are all expected to stay on, he added.

From Warren's corporate of-

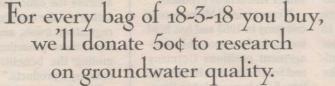
fices in Crystal Lake, Mike Holmes, general manager of Warren's , offered some background on the acquisition:

"We have been involved in discussions with the Genesis Group for several weeks now, and are pleased that these discussions have resulted in the signing of a formal purchase agreement (which took effect at the close of business on July 10).

"Warren's has been involved to a small extent in the turf seed business for nearly 30 years, going back to Ben Warren's introduction of several elite bluegrass varieties like A-34 BenSun.We became more directly involved in 1990 via the acquisition of Davenport Seed Corp., a producer of both turf and reclamation seed. "Given TMI's broad product list

"Given TMI's broad product list of proprietary turfgrass seed, and their extensive North American distribution network, it seems like a good fit to bring us into a fully integrated, full product and service line position in the turfgrass industry."

Introducing a fertilizer to help avoid a more serious water hazard.



Maintaining the quality of our groundwater is an effort we can't afford to make compromises on.

That's why we're donating 50¢ on every bag of Country Club® 18-3-18 to the GCSAA Scholarship & Research Fund, for research on groundwater quality.

Of course, there are other reasons to buy 18-3-18. Including its balanced, one-to-one nitrogen/ potassium ratio. And homogeneous granules for



other responsibilities will direct the overall

vice president-field sales, Golf Car Division.

vice president-marketing, Golf Car Division.

• J.R. "Jim" Moran has been promoted to

• J. Bryan Taylor has been promoted to

Shirley E. Wilson has been promoted to

• C.K. "Charlie" Emery has been appointed

operations of the Golf Car Division.

corporate controller.

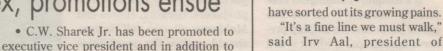
regional manager.

Sharek retires from Melex; promotions ensue

Executive Vice President C. W. Sharek, one of the original incorporators of Melex USA, Inc., retired, effective May 31.

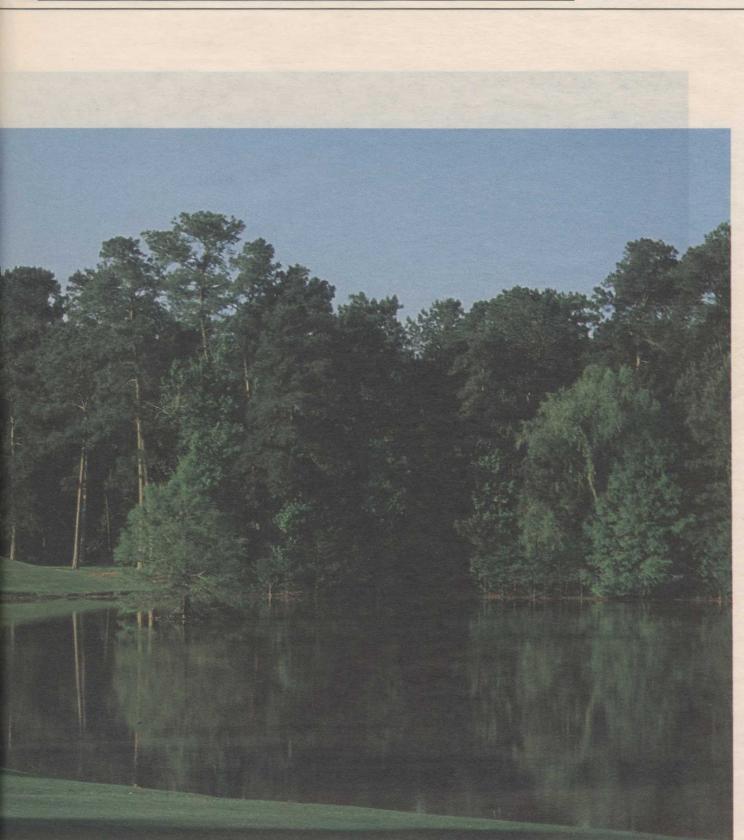
Sharek has been responsible for directing the overall operations of the Golf Car Division since the company's inception in 1973. He will continue to serve as corporate adviser to the company. Sharek was a principal involved in the original design production and introduction of the Melex golf car.

President Marek Tralik also announced the following promotions and appointments:



marketplace.

with a strategy that will get our name out while preserving our



even nutrient distribution.

When you use 18-3-18, a slow-release methylene urea product, you're also being kinder to the environment.

For information on Country Club 18-3-18, contact your local Country Club distributor. Or call Lebanon Turf Products at 1-800-233-0628.

Because while it might be fun to play over a water hazard, we don't want our groundwater becoming one.



CIRCLE# 140

© 1993 Lebanon Turf Products

Ransomes' corporate identity

Continued from page 1

"It's a fine line we must walk," said Irv Aal, president of Ransomes America. "We obviously have a tremendous amount of brand equity in terms of Cushman, Brouwer, Steiner and Ryan. I think, at the moment, it may be confusing. In fact, I can understand the confusion in the

"But we're trying to come up

brand equity. It's an ongoing thing. But we're in the final stage of deciding just how to present ourselves to the public.

"Our goal is to have a corporate brand identity by the 1993 GCSAA Show in Anaheim.'

The internal portion of this strategy happened in June, when Ransomes restructured into four primary business units: turf, professional lawn care, consumer, and industrial/commercial.

When all is said and done, Aal explained, superintendents will deal with one distributor - in the Turf Division - for all Ransomes products, be they Cushman (Ryan), Steiner or Brouwer.

Internally, the reorganization is a fait accompli. Ransomes America - part of the Ransomes Group established by Ransomes plc of Ipswich, England - started by moving its headquarters to Minneapolis earlier this year. In addition to Aal, who joined the corporation in 1991, top managementincludes Doug McCormick, vice president of sales and marketing; Ed Nachtsheim, vice president of finance; Mike Bruggeman, vice president of human resources and public affairs; and Marv Jaques, director of engineering and technology.

Prior to joining Ransomes, Aal co-founded the Phoenix International Corp., a specialized electronics company based in Fargo, N.D. Previously, he was involved in the farm equipment industry, serving in executive positions with Sperry New Holland, International Harvester and Steiger Tractor Inc.

"I felt it was important that we reassess where Ransomes was going. To that end, we reorganized internally before we reorganized externally," Aal continued. "I suppose it's an overused term, but we would like to think Ransomes is a product-driven company."

For superintendents caught off guard by the corporate transition, product questions remain: "Is my Ransomes dealer currently selling Cushman?" "Does my Cushman dealer now sell Steiner and Brouwer, or just Ryan and Cushman?" These are some of the queries that prompted the shakeup at Ransomes, and Aal answered them this way:

"We're aware of these problems. We really had three strong organizations selling through three separate distribution channels. And they overlapped.

"If I'm a superintendent, I should be able to go to one source for all of those products. That's our goal. It's happening even as we speak, but we still have a long way to go."

It may sound trivial compared to the corporate overhaul currently underway, but the 'paint question' also remains unresolved. "Ultimately, we're going to have one family color," Aal explained.

Will it be the green and red of Ransomes, Cushman green or perhaps a combination of the two? Stay tuned.

Industry takes an interest in composting

Continued from page 43

because they occupy both ends of the composting spectrum. They create large amounts of grass clippings and brush — and when it comes to composted mulch and fertilizer, golf courses are potential users too.

"Every superintendent with a little bit of land should be composting on the golf course," according to Dr. Doug Hawes, a Dallas-based turf consultant. "Many golf courses don't have the available land, so industry can compost and sell it back to the courses. There's certainly a market there."

Hawes — formerly a consulting agronomist to the USGA Green Section, Mid-Continent Region — believes composting is more than responsible waste reduction. In addition to indicating its disease-suppression capabilities, studies have shown compost to be helpful in snow mold reduction.

"Down the road, it may be an alternative to mercury," said Hawes.

...

According to 1990 figures supplied by the Professional Lawn Care Association of America (PLCAA), lawn and yard waste constitutes 20 percent of all solid waste; and grass clippings constitute a full 50 percent of the lawn and yard waste. Twelve states have effectively banned the landfilling of yard trimmings; and expect that

If you put your mind to it, you can put almost anything back into the soil.' - J.D. McMaster

the year 2,000. Enter companies like McMaster, Scott and Pennington, who drive the "debris" away and recycle it into organic mulch, peat and manure products. **McMasterhas** been in the composting business

number

double before

to

nearly 30 years.

"I'm 62 years old," he said. "And being born in 1930, you don't throw nothin' away. If you put your mind to it, you can put almost anything back into the soil."

The rice hull — the husk of a rice grain — was considered useless by the commericial rice industry before McMaster came along. Now his rice hull product routinely replaces peat in the soilmixing process.

According to Brooks Pennington, president of Pennington Seed, aggressive, industrial composting is a win-win situation. "We've been going to municipalities and saying, 'Hey, you're hauling grass clippings and leaves to your landfill. We can take that and put it to use.' "It's unique," Pennington continued, "because it serves two useful purposes. It's helping preserve landfill space, which is at a premium these days, and at the same time producing organic fertilizers and mulch products."

At this point, towns are paying Scott and Pennington to take the "waste" off their hands. But Gregory believes the situation will reverse itself if companies can create a viable market for composted mulch and manure.

Landfill bans are beginning to

put the burden back on the waste producers. Gregory, Hawes and McMaster all said golf courses should explore the possibilities of creating their own composting operations.

"One thing you have to remember," said Gregory. "Composting is waste reduction. And I believe golf courses could take care of their fairway and rough fertilizing with their own trimmings.

"Courses should start a compost heap this spring. It would be ready by next year."

Jake earns Governor's Award

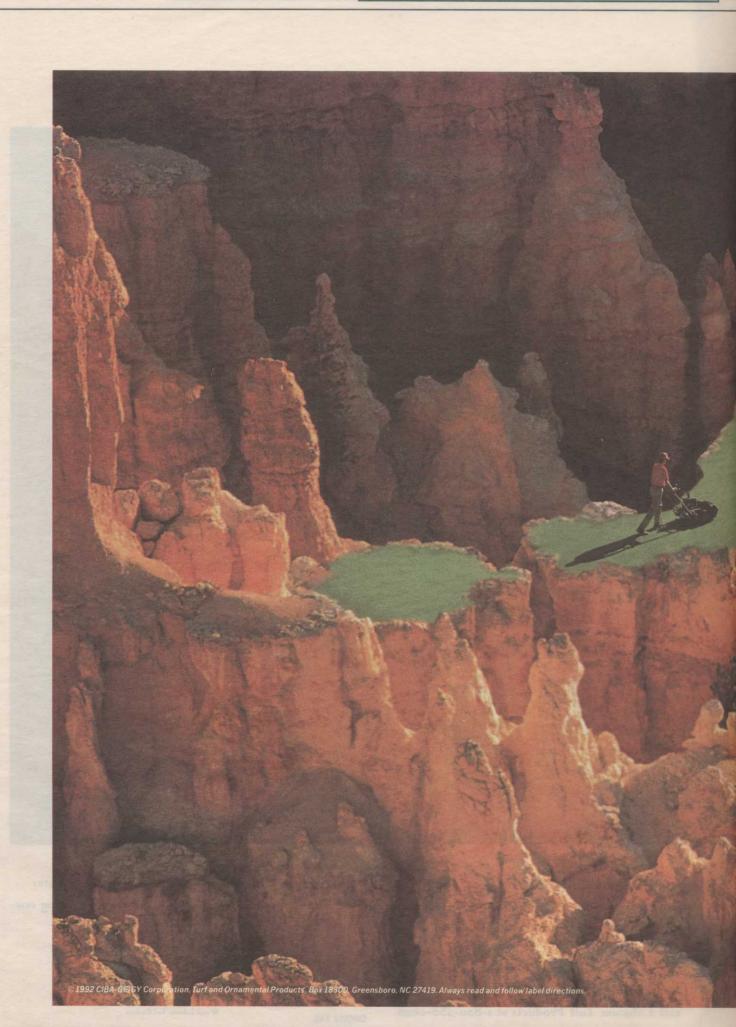
RACINE, Wis. — The Jacobsen Division of Textron has won the 1992 Wisconsin Governor's Award for Excellence in Hazardous Waste Reduction.

The turf equipment manufacturer earned the honor by reducing the amount of hazardous waste it generates by 75 percent since 1988.

Jacobsen achieved this substantial waste reduction by improving its performance in several environmental areas. Among them, the firm installed a still to recycle and reuse cleaning solvents.

Jacobsen also converted its system for preparing undercoating and painting parts to use environmentally safe cleaners, sealers and paint formulations.

In addition, water-based cleaning solutions replaced mineral spirit solutions in the plant's part washers.



Irrigation Assoc. plans seminars to complement November conference

The Irrigation Association's 1992 International Exposition and Technical Conference - scheduled for Nov. 1-4, in New Orleans - will feature a variety of technical sessions covering topics of relevance to those involved in agricultural, turf and landscape irrigation.

Topics covered in agricultural sessions include: "Surge Flow: The American Irrigation Success Story" by Joe Denggeler of the Texas A&M Extension Service; "Agriculture: The Dilemma of

Water Conservation vs. Irrigation Management" by Shlomo Pleban of Orange Enterprises; and "Soilwick Self Regulating Sub-surface Irrigation" by Samir Ismail of the College of Agriculture, Alexandria, Egypt.

In sessions devoted to turf and landscape, topics include: "Alternatives for Conserving Landscape Water Dollars" by Robert Beccard of Aqua Engineering; "The Use of Emitter Lines in Landscape Irrigation" by Tom Bressan of The Urban Farmer Store; and "Gray

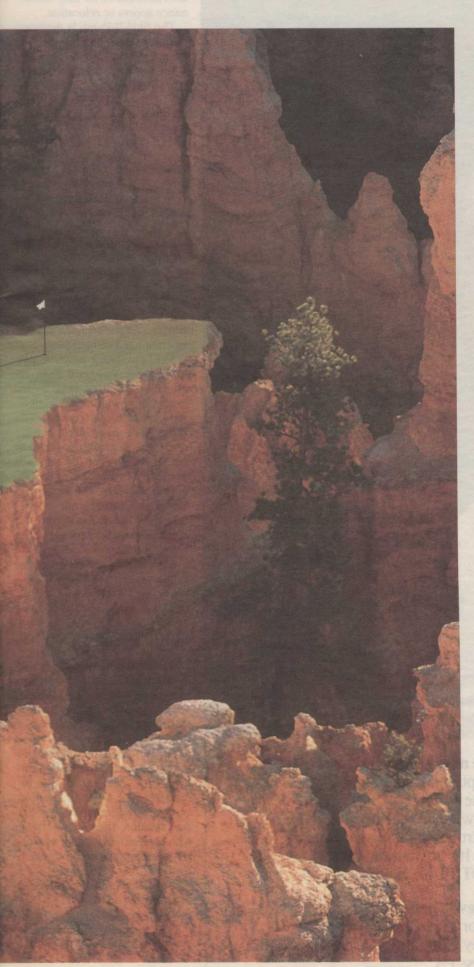
IRRIGATION UPDATE

Water - A Secure Future for Landscapes?" by Larry Farwell of the California Department of Water Resources, Water Conservation Office.

The conference will also host three business seminars designed to be beneficial to everyone. They include: "Stress Management" by Dr. Chrisman Wilson of the Psychology Department at Tulane University; "Building a Winning Team" by independent consultant Jim Whitt; and "Motivation" by Dr. John Keller.

For more information about the programs and registration, contact Martha Lindauer at 703-524-1200, or fax your correspondence to her at 703-524-9544.

The Irrigation Association is also hosting a series of educa-



WITH ALL THAT
HAS TO BE DONE
το μαινταιν
A CHALLENGING
COURSE, WHO
HAS TIME TO
NURSE DISEASED
TURFGRASS?

golf courses in the United States use Banner."

intendents have discovered is that a preventive turf program that includes Banner is more efficient. Not just because it's effective against a broad spectrum of diseases like Summer Patch, Dollar Spot, and Anthracnose. But because of its low effective rates and long residual.

Which means that when you use Banner, you treat on your own schedule. Not the disease's.



Virtually all of the top

What these course super-



tional programs in conjunction but preceding - the Association's 1992 Technical Conference in New Orleans.

On Friday and Saturday, Oct. 30 and 31, the IA will hold a two-day School of Irrigation which will cover the basics of water movement, infiltration and evapotranspiration rates for system design.

The registration fee for IA members is \$150. The fee for non-members is \$175.

The IA will also offer a one-day Micro-Spray Design Workshop on Saturday, Oct. 31. The course is being taught by Dr. Charles Burt of Cal Poly State University, San Luis Obispo.

The registration is \$150 for IA members and \$200 for non-members

Finally, the IA will offer a fullday Water Auditor Training course on Oct. 30. The session covers the basics of landscape irrigation water auditing. The course, which addresses evaluating the performance of irrigation systems, will cost IA members \$150 and non-members \$200.

All the above courses can be used to help irrigation professionals participating in the Association's School of Irrigation.

For more information or to register for a course, contact Denise Stone at 703-524-1200.

EPA gives the 'OK' on ConSyst

Continued from page 43

turfgrasses and many ornamentals. Designed to be both curative and preventive for a broad spectrum of disease, ConSyst is also fungistatic to pythium species.

However, the product was useless until June, when the EPA freed it from 54 months of bureaucratic bondage. Yet it was another branch of the federal monolith that pushed the waiting game into another overtime period.

"We had several (EPA) project managers overseeing ConSyst they kept switching project managers," King explained. "In fact, last year the particular project manager was called away by Desert Storm and that set us back. "What can you do about that?"

GREENSBORO, N.C. - The EPA has also approved a new formulation - for turf - of Ciba-Geigy's systemic fungicide, Subdue.

The new incarnation is called Subdue+ WSP.

Said Owen Towne, Ciba-Geigy project manager: "The new formulation offers an alternative that features less potential applicator exposure and easier container disposal. We listened to turf managers' concerns, and we think Subdue+ WSP's package helps the industry address those concerns head-on.

CIRCLE# 141

Reduced spray drift

The Wind Cone, new from Environmental Technologies, is designed to control spray drift and can be retrofitted to any sprayer to reduce off-target drift by up to 300 percent. Made from durable polyethylene plastic for years of trouble-free service, it's designed to let you spray when you want to not just when the wind lets you. For more information, call 1-306-343-7811.

CIRCLE# 205

Controlling snow mold

Grace-Sierra Horticultural Products Company has introduced Penstar PCNB turf fungicide for long-lasting control of snow mold, brown patch and other key turf diseases. New Penstar 75WP and 10G turffungicides have the same label and use rates as other PCNB products.

Penstar 75WP is a preventive, wettable powder soil fungicide. It's available in granular form. Both products are not yet available in California. For more information, call 1-800-492-8255. CIRCLE# 204



The Skid-N-Pump from Greenscape Pump Services

Hidden water works

The Skid-N-Pump from Greenscape Pump Services, Inc. is designed to provide an unobtrusive, cost-effective package for water transfer, fountains, waterfalls and irrigation applications.

Skid-N-Pump can be designed with either a submersible turbine or submersible trash-style pump and comes with a U.L. Listed Control Panel.

The skid is also designed to keep the pump intake approximately one foot off the bottom of the water source, and the flexible SBR hose allows for easy maintenance access or relocation.

The Skid-N-Pump is designed to eliminate the need for wet well structures and concrete pump slabs. For more information, call 1-214-393-0346.

CIRCLE# 203

Turning on a dime

Ransomes newest riding mower, the Lynx 2000, features zero turning radius and optional clippings pick-up.

With the Lynx 2000, an operator has the option of collecting clippings or - by changing a pin and removing a quick-change panel - discharging clippings back to the turf. Changing from side-discharge to blower pick-up takes just a few seconds and can be completed without tools.

The Lynx 2000 is powered a 16horsepower Vanguard Twin engine and features twin hydro ground drive with individual steering control to each wheel. The three-blade deep draft cutting deck cuts a 42-inch swath, and cutting height can be adjusted from 1 1/2 to 4 1/2 inches in 1/4inch increments. The 11.5-cubicfoot dump catcher has a "seethrough" poly tank, so the operator can tell when the hopper is full.

For more details on the Lynx, call Ransomes at 800-228-4444. CIRCLE# 202

Fingertip reel control

To speed up the reel-lifting and lowering cycles on fairway mowing, John Deere has developed a singled-lever lift control system for its model 3365 Professional Turf Mower.

The system controls all five reel mowers - two front reels, two outrigger reels and a midmounted reel. It raises them on command and immediately stops reel rotation, then lowers them with the reels rotating for aggressive mowing as soon as they reach the turf.

Electro-hydraulic controls raise and lower the outrigger reels. The reel speed is 1250 rpm.

For more information, call 1-309-765-4459. CIRCLE# 201

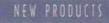
ROOTS™ Concentrate was instrumental in keeping the multiple golf courses



Matthew Shaffer Director of Golf Operations Hershey Country Club Hershey, PA

Please call us toll-free at 1-800-342-6173 for additional information. CIRCLE# 142

GOLF COURSE NEWS



Determining soil moisture

Ditch n' Stitch

toration results.

down to 26 inches.

CIRCLE# 207

information.

Automata, Inc. of Grass Valley, Calif., has introduced its new Aqua-Tel soil moisture sensor capable of a distributed measurement averaged over 30 inches (Model Aqua-Tel 1), thus replacing several one-point sensors needed for averaging soil moisture.

The distributed measurement allowed by Aqua-Tel, as opposed to one-point measurements, is designed to improve the chance of getting a reading representative of the growing area.

For more information, contact Automata at 916-273-

CIRCLE# 208

Power screens

GLENDORA, Calif. - Power Screens, a new graphics interface package for use with Maxi System V computer controllers, has been introduced by the Golf Division of Rain Bird Sales, Inc.

The new program offers direct access to key screens, increased visibility of databases via windows and a full selection of interactive time- and labor-saving features.

The simultaneous multi-station satellite control is designed to increase watering flexibility while reducing system operating time. A mouse is also available.

For more information, call 1-818-963-9311. CIRCLE# 209

Toro on the road

The Workman currently stars in a five-month, crosscountry tour designed to showcase Toro's new multi-purpose vehicle.

The Toro Roadeo, which kicked off in mid-July, features onsite video orientations, vehicle/accessory demonstrations, test drives, and questionand-answer sessions.

The Workman features an extra large, full-size bed or split cargo system designed to haul 27 percent more bulk and 25 percent more weight than what users were previously used to.

As with all Toro products, the new work vehicle will be backed by the firm's 48-Hour Delivery Program, in which any part not immediately available from Toro distributors can be delivered within 48 hours anywhere in the contiguous United States.

For more information on the Workman, the Roadeo or other Toro products, call 612-887-8350. CIRCLE# 210



The F1098 soft-side sweeper from Kubota

Easy clean-up

COMPTON, Calif. - Kubota Tractor Corporation recently unveiled its new F1098, an economy soft-sided enclosure for F Series front mowers with two-post ROPS.

With replaceable reinforced vinyl sides with Velcro edging standard, the F1098 can be easily removed for warm weather use. The F1098 is also equipped with tapered, full-length windshield safety glass and single-speed electric wiper.

For more information, call 1-213-444-7000.

CIRCLE# 206

BEFORE YOU BUY JUST ANY BENTGRASS, GO BY THE BOOK.

Penn Pals Bentgrass Catalogue

Phone 1-800-547-0255 today for your complimentary copy of the Penn Pals catalogue. You'll see why Penncross, Penneagle, PennLinks and Pennway blend set the standard for bentgrass on golf courses.

> Tee-2-Green Corp. PO Box 250, Hubbard, OR 97032 FAX 503-981-5626 1-800-547-0255

Golf Course Marketplace

A D V E R T I S I N G R E A L ESTATEF 0 R S E **BUSINESS SERVICES** INFORMATION

1992 Rates 2X 6X 12X \$55.00 \$50.00 \$40.00 Per col. inch: Add-on per 1/4": \$13.75 \$12.50 \$10.00 Logo incl. in ad: \$30.00 \$30.00 \$30.00

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***** **DEADLINE TO PLACE A CLASSIFIED** AD IN THE SEPTEMBER ISSUE IS MONDAY, AUGUST 17TH

EMPLOYMENT

PROGRESSIVE SALES PERSON Leading Mid-Atlantic manufacturer seeking a sales representative with golf course experience. Individual must be self starter who can introduce established firm with innovative ideas into golf course market. For consideration, send resume with salary requirements to: Box M-792, c/o Golf Course News, 7901 4th St. N., #311, St.

Petersburg, FL 33702.

CONSTRUCTION SUPERVISORS & SHAPERS

International golf course architect seeking internationally-experienced construction personnel. Send resume to Golfplan, P.O. Box 1823, Santa Rosa, CA, 95402-1823, Attn: Mr. Rick Kroeger.

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REQUEST FOR QUALIFICATIONS The Redevelopment Agency of the City of Long Beach, CA requests Qualifications from Developers interested in Golf Center. Developers are invited to submit their qualifications to the Redevelopment Agency of the City of Long Beach, CA for the development of a golf center consisting of a golf driving range, miniature golf course, clubhouse, & parking. The Agency will lease13 acres +/- for the golf center as a component of a multi-use redevelopment project consisting of 600,000 sq. ft. +/- of retail, an office complex, & a gas processing plant. The project site is centrally located & offers excellent I-405 access. For a copy of the Request for Qualifications (RFQ) please send a facsimile to Arnold Tchira, Redevelopment Agency, (310) 590-6215. The deadline for the RFQ is 4:30 p.m. PDT, September 4, 1992.

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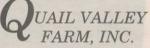


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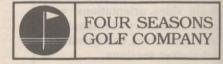
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Golf Course Marketplace





Doak designs second career as book author

Praise is coming from many corners for golf course architect Tom Doak's new book, Anatomy of a Golf Course: The Art of Golf Architecture.

"Tom Doak is a practicing golf architect and a dedicated student of golf design," said noted course designer Tom Fazio. "He is also quite good at explaining many of the more technical aspects of golf architecture in easily understood terms.

"This book will appeal to the many golfers who find golf architecture a fascinating subject and want to learn more about it."

Doak is known to many as architecture editor for GOLF Magazine. Said Editor-in-Chief George Peper: "On one level, this is a lucid book inside the mind of a golf architect. On a second, more important level, it's an instruction book - it tells you how to read a course."

A Traverse City, Mich.-based designer, Doak is considered one of the brightest young stars on the architectural horizon. Among his best-known works is Black Forest at Wilderness Valley in Gaylord, Mich., listed as one of the Top 10 New Courses You Can Play in GOLF Magazine.

He has also done High Pointe Golf Club in Williamsburg, Mich., and The Heathland Course at The Legends in Myrtle Beach, S.C. He is working on facilities in Charlotte, N.C., and Elverson, Pa., 45 minutes west of Philadelphia.

Shortly after graduating from Cornell University, Doak worked for architect Pete Dye, getting involved in such projects as PGA West. "Of all the things I learned from Pete," Doak wrote, "the most important was just how much was involved in getting a great golf course from the dream to the ground. That is one lesson I hope will come across clearly in this book."

It does.

Doak delves deeply into the areas of routing, esthetics, design psychology, greens, tees, fairways, hazards, practice facilities, redesigns and restorations.

Superintendents and developers might find the chapter "Maintenance - The Architect's Perspective" particularly interesting.

"The golf architect has a vested interest in maintenance because, as conditions change, so does a golfer's perception of the design," Doak wrote.

"The architect must be careful not to design features which are impossible to maintain, or are so costly that they undermine the economics of the project."

The 256-page book contains 50 illustrations and a foreword by Ben Crenshaw. The cost is \$22.95. Anatomy of a Golf Course is available from Lyford & Burford Publishers, 31 West 21 Street, New York, N.Y. 10010; telephone 212-620-9580.



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6 — New Jersey Turfgrass Research Field Day in North Brunswick.

9-12 — Cornell Compost Management Symposium for Professionals in Ithaca, N.Y. Contact Ken Cobb at 607-255-1185.

9-12 — 47th Annual Soil & Water Conservation Society Meeting in Baltimore. Contact 515-289-2331.

17-19 — Golf East Expo in Orlando, Fla. Contact 800-443-8318.

18 — Golf Course Design/Construction and Golf Day in Delhi, N.Y. Contact 800-873-TURF.

19—*Rhode Island Annual Turfgrass Field Day in Kingston*. Contact Dr. Noel Jackson at 401-792-2932.

19-21 — Field Diagnosis: Insects and Diseases of Trees and Shrubs seminar in Ithaca, N.Y. Contact 518-783-1322.

20—Michigan State University Turfgrass Field Day in East Lansing. Contact Frank Rossi at 517-353-0860.

22 — PGA of America's National Golf Day. Contact Julius Mason at 407-624-8444. 26 — Landscaping for Wildlife seminar in

Cook College in New Brunswick, N.J. Contact 908-932-9271.

28-30 — Golfing '92 Indonesia in Jakarta. Contact 62 21 420-4300.

September

10-13 — Asian Golf Course '92 — Asian Golf Course Conference & Exhibition in Kuala Lumpur, Malaysia. Contact in Singapore 65 4473680.

20-23 — Florida Turfgrass Association annual conference and trade show in Jacksonville. Contact 800-882-6712.

23—Oklahoma State University Turfgrass Field Day in Stillwater, Okla. Contact Dennis Martin at 405-744-5419.

October

3-6 — Golf '92 International Golf Trade Fair in Dusseldorf, Germany. Contact 312-781-5180.

4-6 — Marketing to Golf Facilities Seminar in Oak Brook, Ill. Contact Rebecca Quinlan, Golf Course News at 207-846-0600.

5-7 — International Golf & Resort Development Show in Acapulco, Mexico. Contact 800-285-2332.

7 — GCSAA spray technician training program in Falmouth, Mass.*

9 — GCSAA spray technician training program in Penfield, N.Y.*

15 — GCSAA spray technician training program in Lincoln, Neb.*

15-19—Congress for Recreation and Parks in Cincinnati. Contact Pat Phillips at 703-820-4940.

21 — GCSAA spray technician training program in Lawrence, Kansas.*

21-23 — National Golf Foundation Golf Summit in Orlando, Fla. Contact NGF at 407-744-6006.

29 — GCSAA spray technician training program in Pleasanton, Calif.*

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.

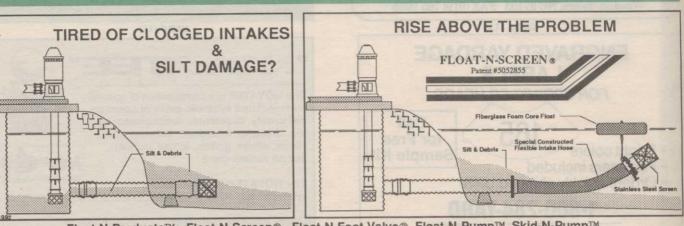
1-4—International Irrigation Exposition and Technical Conference in New Orleans. Contact 703-524-1200.

4-5 — Annual Oklahoma Turfgrass Conference in Tulsa. Contact Dennis Martin at 405-744-5419.

Continued on page 53

Golf Course Marketplace

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Continued from page 52

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.*

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.*

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.

8 — GCSAA spray technician training program in Las Vegas, Nev.*

10 — GCSAA spray technician training program in Scottsdale, Ariz.*

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

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 Gruttadaurio at 607-255-1792.

12 — GCSAA spray technician training program in Galena, Ohio.*

4-16—*Mid-America Horticultural Trade Show in Chicago*. Contact Donn Sanford at 708-526-2010.

February

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.*

March

2 — GCSAA spray technician training program in Owings Mills, Md.*

4 — GCSAA spray technician training program in Aurora, Ill.*

10 — GCSAA spray technician training program in Helena, Mont.*

15-21 — Pacific Rim Golf Course Conference and Show in Singapore. Contact 913-841-2240.

* — For more information or to register, contact the Golf Course Superintendents Association of America education office at 800-472-7878 or 913-841-2240.

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CIRCLE #173

ON THE GREEN

Hammering away at a maintenance nightmare

Burning Tree CC staff solves drainage problem

By STEVEN RENZETTI

The *ultimate* in deep-tine aerification? That's what a seasoned and sympathetic maintenance worker might have thought we were up to last fall as a jackhammer rammed up and down through the surface of the 15th green at Burning Tree Country Club in Greenwich, Conn.

Either that, or maybe we'd just spent too much time around the 19th hole. But as crazy as we may have appeared,

there was a method to our madness. Developers built Burning Tree's greens from native soil back in 1962. Subsurface drain tile was omitted. That proved particularly troublesome on the 15th green, where a wet spot and discolored turf appeared from time to

time. Checking past maintenance records and U.S. Golf Association reports, we discovered former superintendent Robert Alonzi (now at Winged Foot Golf Club)

had isolated the problem. He noted the green was built over a natural spring. In addition to occasionally large amounts of water, it also released extremely high concentrations of iron.



Rather than surfacing in one spot, the iron-laden liquid created a large, soggy patch measuring almost 30 square feet. This created an inconsistent green, where it was near impossible to maintain quality grass.

Rebuilding the green seemed inevitable. But first we decided to open it up and investigate.

Lady Luck looked to be on our side when our first test hole hit what appeared to be the main source of water. The simple solution — run drainage tile down the middle of the green, trap the water below the surface and run it out the back before it had the chance to Workers at Burning Tree CC install PVC pipe to solve a drainage problem on the 15th green. They first had to drill through the putting surface and underlying ledge with a jackhammer. Superintendent Steve Renzetti reports the 15th is now one of the top greens on the Greenwich, Conn., layout.

reach the top.

We brought in plywood sheets, sod cutters, shovels, edgers, utility vehicles and our most experienced crew. An hour into the project, the foreman called on the radio.

"Boss, we hit some rock," he said. "Well, take it out," I answered.

"No. You don't understand," he came back. "We hit **ROCK**."

He was right. Ten inches down were huge boulders, some the size of large office desks. So much for the simple solution.

Having committed ourselves to the investigation-before-rebuilding route, we headed to the rental store. There we picked up a 75-cubic feet per minute compressor and jackhammer with carbide tip bits.

Knowing the granite-like rock would not chip easily, the three-man crew settled into what they knew would be a lengthy job. They took turns hammering the stone. Two days and many tired muscles later, they broke through.

A slow trickle of water passed through the trench they created down the green's center. We laid 4-inch perforated PVC drainage pipe back-filled with pea gravel. That was covered with filter fabric overlaid with 10 inches of top mix.

Even though the rest of the green was formed from native soil, we went with a 80-15-5 topdress mix over the reconstructed area to maximize water percolation into the drain tile.

Such a sandy top mix could have created an impermeable layer between the native soil and new materials. To reduce the likelihood of that occurring, we added a wetting agent and highphosphorous fertilizer to help the roots dig deeply into the soil.

Solid-tine aerification over the trenched area helped further break down any possible layering in the resodded area.

Six weeks later, I dared anyone to spot the drain tile. Today, the 15th green is considered one of the better and more consistent greens on the course.

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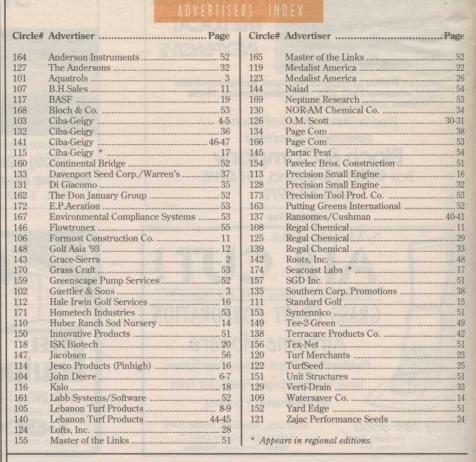
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