

GOLF COURSE NEWS

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Architects pick The
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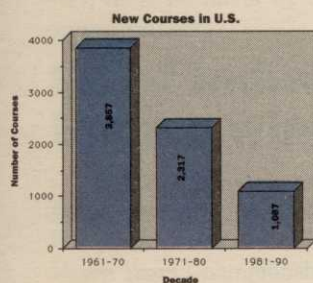
The Best of 1989!

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the best alive



Source: NGF

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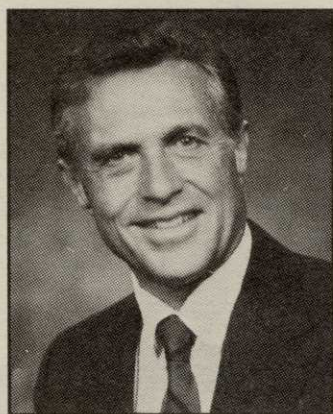
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Wadsworth voted No. 1 builder of '89

BY PETER BLAIS
"We've always felt that how well we've done our job depends on how the architects see what we've accomplished. We want to see them get what they want out of their design."

That's how company founder and chairman of the board Brent Wadsworth explains the success of Wadsworth Golf Construction Co., voted 1989 Builder of the Year in *Golf Course News*' survey of architects.



Brent Wadsworth
Voted Best Builder of 1989

Wadsworth received nearly one-fourth of the votes cast, more
Continued on page 29

Fazio named top architect of the year

BY PETER BLAIS
This has been a good year for Tom Fazio. But so was last year, and the year before that and the year before that and... "They all kind of blend together for me," answered the man voted the 1989 Architect of the Year in *Golf Course News* 'first survey of course designers, when asked if this year was special.

"I'm just amazed at the quality of products we (architects)



Tom Fazio
Voted Best Architect of 1989

are able to build today. High quality is what developers and owners
Continued on page 28

Subsurface injection project wins raves

BY MARK LESLIE
The success of work on equipment that injects pesticides below the surface of the turf where grubs live should prod researchers to develop a wide range of new products to fight pests.

Ohio State University Professors Harry Niemczyk, an entomologist, and Erdal Ozkan, an agricultural engineer, have completed a season of research on their project and are excited by its prospects.

Niemczyk cited data showing that the "liquid injection subsurface placing system" they are developing can put the product
Continued on page 31



A panoramic view of Pinon Hills Golf Course in Farmington, N.M., shows the 11th green in the foreground and the elevation changes on No. 15 tees in the background. For more information on this course, designed by Finger Dye Spann of Houston, Texas, and others, see pages 10 and 11.

Florida project targets families

BY MARK LESLIE
The family orientation of a proposed golf facility turned it from a loser to a winner in the zoning process and will turn it into a reality this spring in Orlando, Fla.

Golf Unlimited will start construction in January on the Lake Under Hill Golf Center, which will include a fully lighted, nine-hole par 3 course, complete driving range, putting course and miniature golf layout.

But the 26-acre facility was a wipeout in June when heavy opposition from neighbors contributed to an Orange County Commission denial of zoning approval on the grounds the project was too commercial for the mainly residential area.

"We got an extension of the request," said

Golf Unlimited's Jack Irwin, "and met with homeowners and told them the facility would enhance, not hurt, their neighborhood. We went back to the commission with neighborhood support and got unanimous (5-0) approval."

The turning point, Irwin believes, came when neighbors realized the project will stress the family.

"We planned it with the family in mind," he said. "Dad can bring the kids out and teach them or let them play miniature golf while he and his wife are playing."

It is a concept Irwin expects to continue working with. He already plans a second family golf center in Orlando and may look for other opportunities working out of his

Orlando and Knoxville, Tenn., offices. The idea of lighting a course has been successful at two facilities in Myrtle Beach, N.C., and another in Daytona, Fla.

But the Orlando project is believed the first with its particular amenities.

"We'll give the average player — who can't afford to belong to a country club and works all day — and the beginner a chance to play in the winter and summer. It will be great for seniors," Irwin said.

The longest of the nine holes will be 160 yards, and Irwin said: "The lights will be very high-quality; you'll be able to follow the flight of the ball all the way. It will be a first-class course with wall-to-wall irrigation..."

Continued on page 8

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HYUNDAI

News

Panel advises new course in Kansas City

Building a new golf course was the unanimous recommendation of the Kansas City (Kan.) Golf Course Advisory Committee to the city commissioners in early November.

The possibility of a nine-hole addition to Sunflower Hills Golf Course, the site of the meeting, was considered. But the advisory committee made it clear it preferred an 18-hole course that could be located along Interstate 435.

Sunflower Hills is a profitable municipal course where 55,000 rounds are played annually.

The advisory committee discussed the possibility of bringing in a private developer and opening the area around the course to residential development. Any decision on course expansion, however, must be made by the city commissioners.

CC of Indiana team a winner

A team from the Country Club of Indiana in Baton Rouge, La., won first place in the third annual John Deere Team Championship, Nov. 18-19 at the Jack Nicklaus Resort at PGA West.

The tournament is the only PGA-sanctioned competition that provides an opportunity for golf professionals and golf course superintendents to team up with other club officials in a national championship.

The winning team of Tolby Strahan, Dean Alexander, Luis Romero, Ben Skillman and John Deere golf and turf distributor Howard Ruiz, beat 35 other teams in the two-day, 36-hole event. More than 700 teams competed in sectional tournaments through the year to determine the 36 finalists for the modified scramble tournament.

Rounding out the top 10 were teams from Twin Oaks Country Club in Springfield, Mo.; Elm Grove GC in Lubbock, Texas; Marbella Golf and Country Club in San Juan Capistrano, Calif.; Olympia Golf and Country Club in Olympia, Wash.; Seven Springs Resort in Champion, Pa.; Schuyler Meadows Club in Loudonville, N.Y.; Bob O'Link GC in Highland Park, Ill.; Madden Golf Courses in Dayton, Ohio; and Mission Hills Country Club in Rancho Mirage, Calif.

NE supers net research money

The Golf Course Superintendents Association of New England reports a successful first Turfgrass Research Fund Golf Tournament, held at the Dedham Polo and Country Club in Dedham, Mass.

The September event netted approximately \$20,000 from the tournament and contributions.

USGA 'perfect course' exhibit open at Far Hills

A new exhibit, "In Search of the Perfect Course," is on display at Golf House, the U.S. Golf Association's museum in Far Hills, N.J.

The new exhibit, which opened Nov. 27, is the fourth in a series of special exhibits at Golf House. "In Search of the Perfect Course" is a review of golf course architecture. The display features quotes, photographs and paintings of a number of prominent architects, such as

A.W. Tillinghast, Donald Ross, Alister Mackenzie, Robert Trent Jones, Jack Nicklaus and Arnold Palmer, as well as paintings and sketches of some of the courses they designed.

Included in the display is a drawing on silk, a recent acquisition, of the layout of Glenaeles in Scotland. The exhibit also includes original diagrams and paintings.

The new display will be on exhibit until the fall of 1990.

Citizens group forms to stop planned project

A Huntington Beach, Calif., citizens group has started a petition drive to block a proposed golf course in the city's Central Park.

Huntington Beach Tomorrow/Save Our Parks filed a petition with the city in late October calling for an amendment to the city charter that would require voter approval of any action affecting passive use of the city's parks and beaches.

The City Council's Sept. 5 approval in concept of an 18-hole, 105-acre golf course on unimproved land in Central Park is at the root of the controversy.

The council approved the plan as a way to turn unimproved land into developed parkland at no cost to the city. The \$20 million to build the course would be borne by a developer who would lease the land.

Opponents counter with surveys revealing that most citizens want the land to remain set aside for passive use. Their petition, which needs 20,000 signatures to appear on the ballot, would require a majority of both the city council and voters before development could take place.

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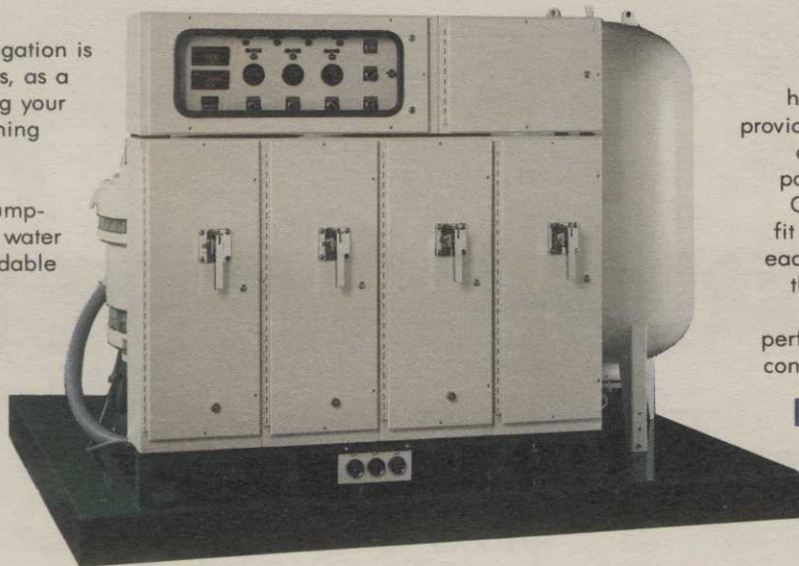
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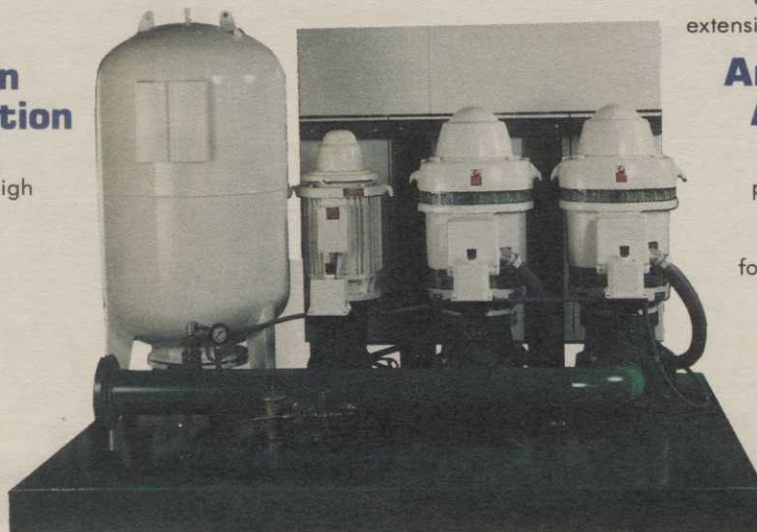
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Nematode test begins at Fla. courses

Florida researchers will begin releasing the most promising biological control agent available for mole crickets this month on 23 test golf courses throughout the state.

It is hoped the microscopic worms called nematodes will help eliminate the pesky insects which cause an estimated \$46 million damage annually to Florida courses, lawns, pastures and fields.

Among the courses participating in the nematode release program are Bay Hill, TPC in Jacksonville, Fiddlesticks in Fort Myers, Royal Poinciana in Naples, Interlachen Country Club in Orlando and Cypress Run Country Club in

Tarpon Springs.

"Mole crickets just ruin our putting, tees and fairways. Not only do they wear and tear at the grass roots, and prevent grass from growing, but their tunneling makes very, very bad spots on the fairways," said Robert J. Yount, vice president of development for the 800-member Florida Turfgrass Association.

The FTA, through its funding arm, The Florida Turfgrass Research Foundation, is funding research and the release of the Uruguayan nematode through a \$100,000 grant to the University of Florida's Institute of Food and Agricultural Sciences. Owners of

each of the participating golf courses will also provide \$8,000 to the foundation to help finance the release and further biological research.

Unlike other types of nematodes, the Uruguayan variety is not harmful to man, plants, animals or other insects. It preys solely on mole crickets.

The nematode enters the tiny, tan insect and releases a bacterium that kills the mole cricket. The nematodes feed on the bacteria, which multiply rapidly in the body of the mole cricket. The nematode undergoes two complete life cycles inside the cricket, with about 50,000 juvenile nematodes

leaving the cadaver to infect other mole crickets.

IFAS scientists J. Howard Frank and Grover Smart will release 3 million nematodes on the first course. They will use electronic sound emitters that mimic the mole cricket's mating call to lure them to the waiting nematodes. Frank said he will try three different methods of spreading the nematodes near the sound emitter to trap the mole crickets.

Many chemical pesticides to control the pest are still being evaluated by regulatory agencies and may not be available for some time, making a biological control agent all the more attractive. The Florida

NEWS

Turfgrass Research Foundation provided \$145,000 to the IFAS over the past five years to find a biological alternative.

The Uruguayan nematode has proven very effective. The release of nematodes at five sites in Gainesville pastures has decreased mole cricket populations by 95 percent.

Oklahoma remodeling courses

BY PETER BLAIS

Oklahoma is spiffing up its nine state-owned resort golf courses to cash in on the game's growing popularity.

"The people here (state tourism department) are aware of the growth in golf," said Art Proctor, the department's golf director since April. "They want to enhance our courses' image so we can attract more people."

That image was slightly tarnished by poor playing conditions at many courses. Proctor, who has played the PGA and Senior tours and served as head pro at Kickingbird GC in Edmond the past 16 years, often heard complaints about state courses from Kickingbird members. Improper fertilizing, over-watering, poorly cut greens, and too-frequent changing of cup placements were among the gripes.

"It was just a general lack of technical knowledge," said Proctor. "They created this position to take the courses out of the control of the parks and give it to experts."

A \$5-million bond issue, approved in November, includes \$800,000 for expanding three state courses from nine to 18 holes. Although it generally costs much more to build a single nine-hole course, the state can take advantage of such cost savings as inmate labor, use of state equipment, and in-house expertise to design and lay out the additions.

The three courses up for expansion are Quartz Mountain State Park near Altus, Lake Murray State Park near Ardmore and Hochatown State Park near Broken Bow. Three greens were rebuilt at Sequoyah with more expected to get similar treatment as funds become available.

Proctor also plans to install cart trails and buy new equipment at the remaining courses. Driving ranges are on tap for some facilities, with Lake Texoma State Park's expected to open this spring.

Rifitted pro shops, new signs, fresh paint, 1,400 newly planted trees and new benches have been spread out among the courses. Lessons will be made more available and PGA members only hired as new golf managers, a move Proctor expects will improve turf quality.

Continued on page 5

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Karsten reports analysis breakthrough

BY MARK LESLIE

Karsten Turf Co. has introduced an advanced technology that allows superintendents to quickly analyze the health of their turf at the source: the grass itself.

Karsten's research team has used near infrared (NIR) spectroscopy instrumentation to develop the Model 491 Scanner to analyze the nutrient content of grass tissue samples.

Research Manager Dr. David York said the scanner now analyzes 10 nutrient elements: nitrogen, phosphorous, potassium, calcium, magnesium, sulfur, iron, zinc, manganese and boron. The researchers are investigating the possibility of adding sodium, molybdenum, cobalt and silica to the scanner's capability.

The prevailing method of analysis is testing the soil. As successful as this has been, York said it does have drawbacks. He said that while a soil test finds what is in the soil, those nutrients don't necessarily get to the grass.

The pH and chemistry of soils and the soil texture — whether it is clay or sand — influence the availability of the essential nutrients to the grass.

"We think this is much more useful," York said, speaking of the \$14,000 scanner which is IBM computer-compatible. "We're very optimistic. The initial response is that this is something that will really help superintendents better manage their golf courses."

The procedure is simple and fast. The superintendent takes a small (50- to 100-gram) sample of grass, rinses it in water and dries it in a microwave oven. The dried sample is ground into a fine powder using a small cyclone grinding mill. The sample is placed in a small cup and inserted into the Model 491 Scanner. The preparation of the sample to this point takes about 15 to 20 minutes.

One minute after the sample is placed in the scanner, the computer it is connected to displays a complete nutrient profile.

"For the first time, this gives the superintendent a tool with which he can attempt to apply or meet the actual fertilization/nutrient requirements of his golf course," York said. "He can provide that grass with what it needs to keep it growing in a healthy, vigorous state."

"Until now he had to send a sample off to a lab and wait, perhaps for weeks. Now if he has had a serious problem with nutritional deficiency or excess he can find out quickly and get a jump on resolving it."

Citing Karsten's accompanying liquid nutrient products, York said: "We don't worry about soil pH because we have a lot of things in our nutrients that buffer the plant from pH. We are putting nutrients on the leaf so they react foliarly. We're attempting to bypass the problems that occur when granular fertilizer is applied to the soil and the problems of nutrient tie-up."

While many companies offer nutrients, Karsten's scanner is unique to the industry and to turfgrass analysis. The infrared tech-

Oklahoma

Continued from page 4

Proctor estimates the state has saved 13 percent on new purchases since the courses started buying as a group.

Each course had its own way of tracking sales, golfers, free passes, number of members, gift certificates, etc. before this year. Proctor installed uniform cash registers and financial record-keeping at all nine courses shortly after assuming his new position.

"Now we can all pull together as one," he said.



Dr. David York with Model 491 Scanner

'The initial response is that this is something that will really help superintendents better manage their golf courses.'
— Dr. David York

nology has been used in the agriculture industry for 10 years, analyzing forage for protein, crude fiber, digestibility, et cetera.

York worked with project coordinator Bernie Atutis, Penn State Professor John Shenk of Shenk's Infrasoftware International, and Karsten's research staff on the scanner. He feels the equipment is a breakthrough for groundskeepers, providing them an ecologically and environmentally sound approach to maintaining healthy turf.



LPGA choosing course architect

The Ladies Professional Golf Association is reviewing applications for an architect to build the group's new, 36-hole home course in Daytona Beach, Fla. LPGA media services coordinator Beth McCombs said it wasn't known when a decision would be made among the 37 applicants. The course, scheduled to open in 1991, will host the annual LPGA qualifying tournament.

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News

Rutgers royalties support research

Lofts' Seed Inc.'s annual royalty payment to Rutgers University this winter amounted to \$288,000 to support the school's turfgrass research.

The royalties are generated from international and domestic sales of Lofts' proprietary turfgrass varieties. The money is used to support several research, teaching and extension programs at Rutgers.

'Come one, come all,' investors told

BY PETER BLAIS

Unlike many proposed golf course projects, **money**, not environmental approval, is the stumbling block to building a new 18-hole course in Yakima, Wash.

County officials cleared the way for a course and residential lots on the 200-acre Hull family site back in 1986. But the money wasn't there.

Then last fall, a group of three local businessmen took an option on the property. They pared down the project to just the golf course, then offered 1,000 shares in the course for \$3,800 apiece to the general public, hoping to raise the

\$3.8 million needed to build the facility. But only 100 people signed the letters of intent by the Dec. 1 deadline.

"Now it's on to Plan B," said Don Powell, one of the members of the executive committee.

Plan B calls for just 100 shares at the same \$3,800 apiece. That \$380,000, plus the investors' personal guarantee for another \$18,000 per share should the project fail, would be used to secure a \$1.8-million loan toward construction of a no-frills, \$3.2-million course. The remaining \$1 million would come from the sale of land originally set aside for house lots.

In exchange for their \$3,800 and personal guarantee on the loan (which Powell estimates would be paid off from the course's cash flow within 20 years), the investors would receive a \$380-per-share discount on their yearly membership fee and a percentage of the profits once the loan was retired.

It sounds good on paper. But paper may be as far as the Apple Creek Golf Course gets unless Powell and partners Scott Wilson and Louis Wishert have their option on the property extended past the Dec. 26 expiration date.

"Our only hammer in this is the information we've gathered over

the past few months," said Powell. "We've talked to a lot of developers from outside the area who might be interested in doing something here. The owners are evaluating whether to extend our option. We're trying to decide whether to sit on our thumbs until then or keep on trying to get more information."

One of the things Powell would like to get a better handle on, if his group is to continue, is the annual expense of maintaining the course. That figure will be very important to the bank he approaches for a loan. His research has revealed costs ranging from \$10,000 to \$25,000 per hole.

"Right now I'm figuring about \$17,500 a hole. But I really believe we can do it for less," said Powell, referring to the \$10,000 figure used by a local course.

It's the crowded conditions at such local courses, plus the willingness of Seattle golfers to drive long distances (2-1/2 hours in this case) to escape the even-more-crowded conditions in the state's largest city, that lead Powell and his associates to believe the West Valley needs a new 18.

"We'd like to be playing on the course by 1991," said Powell, secretary-treasurer of a heavy construction equipment rental company. "I have an excavator sitting in the yard right now. If someone comes in with the money today, we'll have it out there moving earth tomorrow."

Dedrick named Man of Year

The Irrigation Association handed out several awards during its International Irrigation Exposition & Technical Conference in Anaheim, Calif.

Agricultural engineer Dr. Allen R. Dedrick was named 1989 Man of the Year, while Robert Morgan received the Industry Achievement Award and Professor Jan Feyen received the sixth Crawford Reid Memorial Award for his achievements in promoting proper irrigation techniques and procedures, and for bringing about major advancements of the irrigation industry outside the United States.

Dedrick, who has worked at the USDA's Agricultural Research Service since 1962, has played an integral role in promoting industry professionalism through the IA's certification program and involvement with national and international standards development.

Morgan was honored for outstanding contributions to the development of the irrigation industry and the products it uses. His career spans six decades. He became the IA's sixth president in 1957. The IA's historian since 1987, the Portland, Ore., native is assembling the first documented history of American irrigation for IA.

Feyen teaches soil and water engineering at Katholieke Universiteit Leuven in Leuven, Belgium, where he has been a professor in the Department of Land Management since 1984.

BENTGRASS



"We planted the 12th hole on Singing Hills' Willow Glen Course to SR 1020 two years ago, and it performed admirably. What's really significant is that members keep asking what we've done to the 12th hole that makes it putt so well! The members like SR 1020's performance from the players' point of view; we like that too, but we also value that we

haven't had to change our normal greens maintenance program to achieve the results."

David Fleming

David Fleming, C.G.C.S.
Superintendent, Singing Hills Country Club
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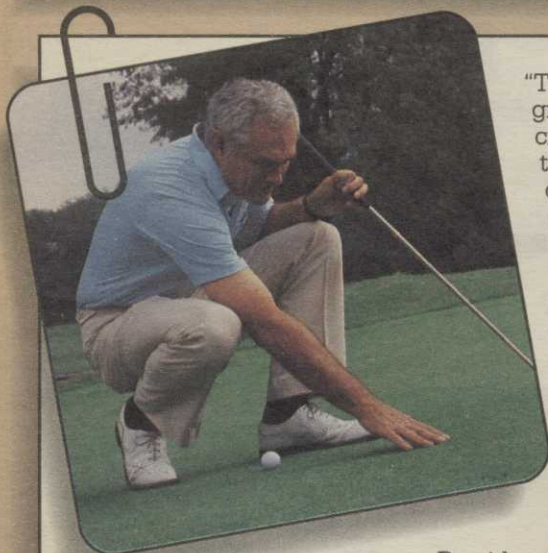
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"The newer golf course greens planted to Penn-cross look beautiful, but they don't putt like the old South German Bent greens. The putting surface of those old greens is fine-textured, not thatchy or grainy, and the old greens don't show the spike marks like Penn-cross. We've been needing bent-grasses bred for golf quality as well as turf quality for a long time, and it looks like SR 1020 and Providence fill the bill!"

Pete Trenham

Peter Trenham
President, Philadelphia Section PGA
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Harold H. Short, Jr.



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Golf Course News will arrive quicker

Happy New Year. Our first-ever January issue begins the year with a very healthy list of readers and advertising clientele. A recent direct mail campaign has increased our direct-request circulation to over 10,000 of our 20,000 total distribution.

As you will see, this issue includes a list of prestigious products and services from a wide spectrum of the

industry. Sixty-five advertising clients contracted for over 40 advertising pages in this issue. What does this mean to you?

It means we will continue to build on our success and improve our publication with every issue with our added resources. We have laid plans for furthering the development of our editorial features. The circula-

tion increase will allow us to mail via 2nd class rather than 3rd, which will speed the delivery time of Golf Course News to you, offering news of the industry even quicker.

You'll see evidence of our increased editorial focus in this issue with the GCSAA show information provided in an easy-reading format. The February issue plan is to offer a "pull-out"

insert which will guide you through the Orlando Convention Center with ease.

All in all, I think you are in for an interesting and information-filled period with Golf Course News, and I wish you the best year ever.

Sincerely
Charles E. von Brecht
Publisher

Stronger families, stronger industry

BY MARK LESLIE

A number of Americans in the golf industry have been traveling to Europe, exporting their knowledge and cashing in on their talent.

Meanwhile, we in the United States can learn one major lesson from the Europeans: Keep the family strong.

Speakers at Golf Course Europe in West Germany last fall spoke about the importance of the family unit in their countries. Families there actually spend leisure time together. Sound like America 30 or 40 years ago?

That family bond not only translates into a better society but — if golf course builders and golf community developers plan correctly — it can mean higher revenues at their facilities.

If a golfing facility can draw an entire family to a course instead of just Dad, or Mom and Dad for that matter, the profits can soar: both for the family and the facility.

Over the years in the United States, all too often golf has pulled families apart.

The term "golf widow" is not an unfounded term.

"Golf orphans" was never coined but could be in many families. It's Saturday and Dad's off to the golf course. Eighteen holes equals four to five hours away from wife and

kids. Lunch and drinks — count off another hour or two.

When day dawns on Sunday: ditto.

Some simple yet innovative projects around the country will help the situation. Others by their very nature will surely bring many families together.

Example 1: Golf Unlimited's Lake Under Hill Golf Center (see page 1 story) in Orlando, Fla., was formulated on the idea of drawing on the entire family. Owner Jack Irwin said, "Dad can bring the kids out and teach them or let them play miniature golf while he and his wife are playing."

The center will include a fully lighted par 3 course, complete heated or cooled driving range with landing greens, miniature golf course and a huge green that will serve as an 18-hole putting "course."

The par 3 layout is short enough so that the whole family can play it together yet challenge the adults. And Irwin plans to offer beginners' instruction.

Golf Unlimited hopes to build similar facilities elsewhere.

Example 2: In Panama City, Fla., Bay Point Yacht and Country Club expects this year to complete a similar "family golf center," featuring a 58-tee lighted driving, all-weather tees, a large putting area, two 18-hole

miniature golf courses, teaching facilities, golf arcade and snack bar.

Example 3: Jim McLoughlin of The McLoughlin Group in Pleasantville, N.Y., a consultant to golf course developers, is reporting success with this idea: Next the clubhouse set aside 20 acres for a double-ended driving range surrounded by three holes — a par 3, par 4 and par 5 — that are not part of the 18. Make those holes the best in the facility, McLoughlin suggests, adding that while some members of the family practice off the tees, the others are nearby playing those three extra holes.

Example 4: Modified distance or Cayman ball courses, the brainchild of Jack Nicklaus, equalize good and average golfers and could mean more families playing together. Architect Bill Amick of Daytona Beach, Fla., is a major proponent of the Cayman courses.

Example 5: Pitch and put courses offer wonderful opportunities for parents to take their children out to a learning — and family — environment.

Meanwhile, the burgeoning number of "golf course communities" should strengthen families by the very nature of the communities — residents live where they golf. No more travel time away from family. A better chance to take along the chil-

dren who, in turn, can play just nine if 18 is too much.

Managers of these communities can organize family events, creating healthy family as well as community ties. Marketing can be a major force for change, treating golf as a social happening for the entire family and tournaments as family outings: father-son, mother-daughter, husband-wife, father-daughter, brother-sister; the possibilities are lengthy.

Shifts in societal makeup, such as the aging of the population, make golf a game that can evenly place grandfather and grandson together in a twosome.

Sir Henry Cotton wanted a string of nine-holes, economically built and maintained, so that young golfers could learn the rudiments of play and the etiquette of the game. All hail that idea!

The National Golf Foundation for four years has declared a Family Golf Week in the summer to encourage golfers to share the experience with family members. Good going.

I'll never forget the "sign-off" of a sports show I watched while growing up.

Maine outdoorsman Bud Leavitt would end each show with this refrain: "The family that plays together and prays together, stays together."

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LETTERS

Ross Society generating interest

To the Editor:

Thank you very much for the wonderful coverage you afforded my society. I received a number of inquiries already, proving your paper is carefully read, and that the Donald Ross Society is of interest to your subscribers.

I also read with interest the piece on my friend, Ed Connor, and his work in computerized restoration models. It might interest you to

know that we coined the phrase "Dead Architects" one night at a dinner party with Ben Wright of CBS Sports after many toasts to the memories and works of Ross, McKenzie, Tillinghast, MacDonald and others. I may have to bring a motion before our board in the future to rename our fledgling group to reflect that consideration... who knows?

Thanks again for the tremen-

dous article.

Sincerely,
Barry J. Palm
Executive Vice President
Donald Ross Society
Seven Fairlee Road
West Hartford, Conn.

Architect overlooked

To the Editor:

I am enclosing a copy of your computer-addressed mailing to our office. As you can see, within your own listing, our office is a golf architectural firm. Your Volume 1, Number 9 issue for November 1989 listed architects responding to a survey and then listed other golf architects. We have practiced golf

architecture for 11 years and are currently engaged in 27 golf course designs. We are listed with NGF and I cannot see how you missed at least a mention of our firm.

This is not that important to our office, but if you are listing architects, I guess you should know that somehow you missed one doing courses in five countries and one of the largest in staff. Last, but not least, we are on the leading edge of computer technology in golf architecture and if you ever need an article along this line, let me know.

Sincerely,
Cal Olson, P.E., L.A.
Golf Course Architect
Costa Mesa, Calif.

Readers praise GCN

To the Editor:

Thank you for the very fine article concerning golf course architecture and the selection of name professionals. We found the article to be fairly written and well researched.

Keep up the good work on behalf of the golf industry.

Sincerely,
Jim Applegate, president
Gary Player Design Co.
Palm Beach Gardens, Fla.

To the Editor:

We have really enjoyed your new Golf Course News magazine. Your articles have not only been very interesting, but very informative. Keep up the good work!

Gordon C. Lewis
Golf Course Architect
Fort Myers, Fla.

To the Editor:

I would like to thank you and the staff at Golf Course News for the outstanding publication of a terrific new trade newspaper. It is a quick-reading, in-depth education I look forward to each month.

Sincerely,
Cal Roth, Director
Course Maint. Operations
TPC/PGA Tour

To the Editor:

I just returned from western Canada and want to say I enjoy reading Golf Course News. It is sure great to have a publication that gives the golf course contractors the news of the industry.

Thank you,
Wilford S. Hall
Hall & Lindsay, Dev. Ltd.
Victoria, B.C.

Correction

In the November commentary by former American Society of Golf Course Architects President Michael Hurdzan about professional golfers designing courses, a quote was attributed to Robert Trent Jones Sr. instead of its originator — Robert Tyre Jones Jr., the great professional better known as "Bobby" Jones.

The quote: "I think (Alister) Mackenzie and I manage to work as a completely sympathetic team. Of course, there was never any question that he was the architect and I his advisor and consultant. No man learns to design a golf course simply by playing golf, no matter how well."

Florida

Continued from page 1

"... And we have an excellent architect in Loyd Clifton and Associates of Deland, Fla.

The driving range will have target greens, while the tees will have both natural grass and mats and will be heated and cooled according to the season.

A 50,000-square-foot putting green will serve as an 18-hole putting course with holes from 20 to 100 feet apart.

Irwin also plans to provide lessons at the facility as part of his philosophy to "market it for the whole family."

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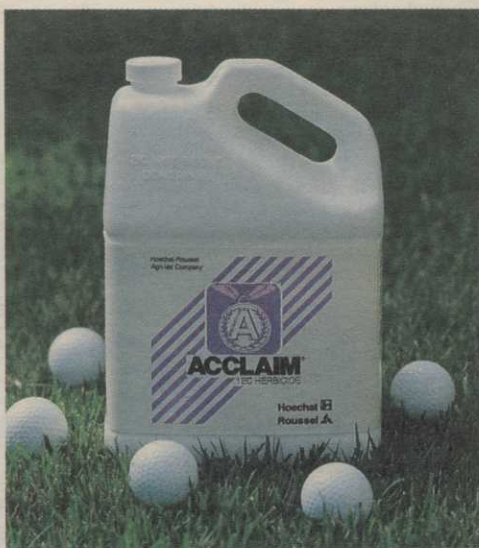
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Holliday overcomes odds, aims ever higher

BY VERN PUTNEY

As a girl, Tracy Holliday flew gliders. It was smooth sailing.

Not so when she entered the golf course business.

The current superintendent at Sterling Farms Golf Club in Stamford, Conn., encountered rough winds on her first job as assistant superintendent.

When her boss introduced her to the green chairman, Holliday extended her right hand, but it wasn't accepted. The man looked her up and down, uttered an oath, then remarked: "I hope you start lifting weights. You're awful skinny."

"After six months under his close scrutiny, I somehow won his respect and praise without greatly increasing the size of my biceps," recalls Holliday.

Holliday had two-year assistant superintendent tenures at the Country Club of Fairfield, Conn., and at Sterling Farms before assuming her present role in March 1988.

She said highlights of her job have included upgrading irrigation pumping stations, designing visually attractive golf car traffic controls to reduce compaction areas around greens, implementing an extensive tree replacement program, being fully responsible for golf course maintenance budget and hiring decisions, and the same for pesticide applications, irrigation system and equipment maintenance.

Glider pilot Holliday has her feet on the ground in other areas. She has a supervisor's commercial applicator's license for pesticide spraying, is a member of national, Connecticut and Metropolitan golf course superintendent associations, and is a contributing reporter for the Metropolitan and Connecticut GCSA newsletters.

Though she grew up on the family's five acres in Pennsylvania, her Dad never let her mow the lawn with the wheelhorse. "That was my brother's job, and he hated it."

"In fact, I never touched a lawn mower until I was 19 and on a golf course. Now, tractors, loaders and mowers are like driv-



Tracy Holliday at Sterling Farms Golf Club in Stamford, Conn.

ing a car," Holliday noted.

Since childhood, Holliday has been outnumbered by men. After majoring in painting and drawing at the College of Wooster (Ohio) from 1979 to 1981, she enrolled at the University of Massachusetts' Stockbridge School of Agriculture.

She was the only woman. Focusing on agronomy, irrigation design, small engine mechanics and business law, she graduated in 1984 as the top student in turf management with a 3.9 grade point average.

Summer jobs those three years were at Longshore Club Park in Westport, Conn.; Plantscapes, Inc.; and placement training at Westchester Hills (N.Y.) Golf Club.

Sterling Farms, an 18-hole public course, accommodates 60,000 rounds annually.

Holliday has a staff of nine during the busiest season.

SUPER FOCUS

Holliday likes the public course because of exposure to the people who live in the city. "It's a great way to meet all kinds."

Athletics have been an important part of Holliday's life. "I like team work and discipline," she said. "Working on a golf course is a lot like athletics. It is a team effort among your grounds staff and your governing board. It is an endurance game come mid-summer, when managing stress becomes the discipline."

"There always is something more to be learned. The skills one can acquire are endless. That's why I love it. I am glad to see that more women are getting into the golf course business. We need a peer group with which to share 'Bear Stories.'"

Sharing camaraderie in a male-dominated profession can be an adventure.

"At many educational slide presentations, the end of the lecture is punctuated by flashing on the big screen a picture of a very shapely woman wearing not much more than a bikini," she said. "What is funny is that the men seated around me turn to catch my reaction before they respond. The lecturer usually is unaware that a woman might be in the audience."

Better somewhat-embarrassed laughter, Holliday philosophizes, than the stony silence that greeted her first venture into the field of golf and men.

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The 13th green at Emerald River Golf Course, designed by Tom Clark in Laughlin, Nev.

NEW COURSES

'Spectacular' site for Pinon Hills GC

Finger Dye Spann, Inc. of Houston, Texas, completed work on Pinon Hills Golf Course in Farmington, N.M., in time for a fall opening.

The rugged northwest New Mexico terrain provides a spectacular backdrop for the 28-hole championship municipal course for which architect Ken Dye has already received critical acclaim.

The contoured playing areas are blended into massive sandstone

outcroppings and around a large arroyo that divides the site from north to south.

Southwest Golf was the course builder.

Native vegetation and Indian archaeological sites are also an integral part of the design giving the course a unique character.

Multiple teeing areas provide maximum flexibility for the par 72 layout. The course length ranges from 5,430 to 7,100 yards.

Two other Finger Dye Spann-designed courses opened in November—Cedar Creek Municipal Golf Course in San Antonio, Texas, and Martindale Golf Club in Buenos Aires, Argentina.

The 7,150-yard Cedar Creek layout was built by RDM Construction.

Ault, Clark busy on jobs nationwide

Emerald River, an 18-hole regulation course, opened in December in Laughlin, Nev. The daily fee course was designed by Tom Clark of Ault, Clark & Associates.

The Wheaton, Md.-based firm had several other courses open recently including Bray Links Par 3 in Williamsburg, Va.; Flatbush GC in Littleton, Pa.; Lone Pine GC in Washington, Pa.; Highlands in Bellavista, Ark.; Klin Creek in Newport News, Va.; and Charles

T. Myers GC in Charlotte, N.C.

Among those under construction are Kingswood Golf & Country Club in Wolfeboro, N.H.; Whittingham GC in Middlesex County, N.J.

Also, Knob Hill Country Club in Freehold, N.J.; Bavarian Hills in St. Mary's, Pa.; Turf Valley Country Club in Ellicott City, Md.; Ponce De Leon in Hot Springs Village, Ark.; Wild Quail Golf & Country Club in Dover, Del.; Mercer

County GC in Mercer, N.J.; Lakeridge GC in Virginia Beach, Va.; and Highland Greens GC in Cleveland, Ohio.

Projects in the planning stage are located in Cape Charles, Chesapeake, Williamsburg, Roanoke, Sterling, Isle of Wright, Prince William County, Loudoun County and Spotsylvania County, Va.; Washington, N.C.; Athens, Greece; Knoxville, Tellico Village and Loudon, Tenn.; Blairsville, Pa.;

Martinsburg, W. Va.; St. Mary's County, Anne Arundel County, Carroll County, Salisbury, Olney and Frederick, Md.; and McCormick City, S.C.

Please let us know your plans

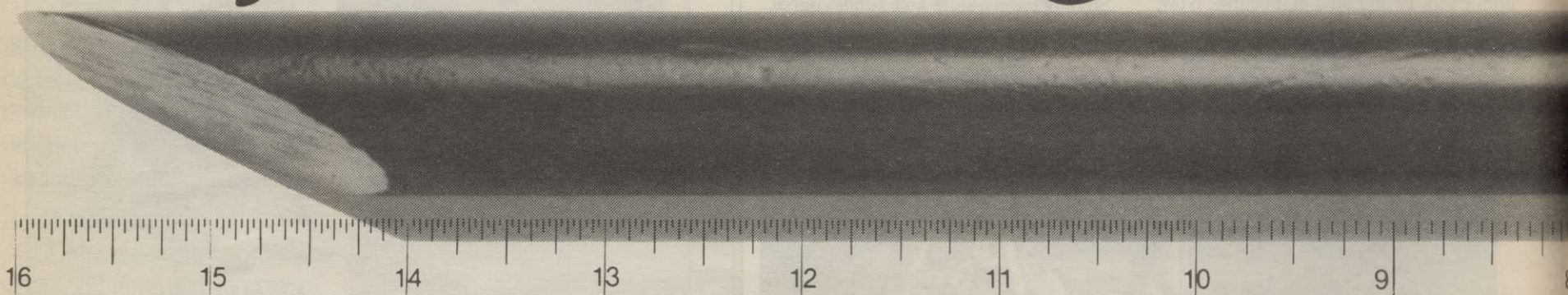
Each month *Golf Course News* publishes news stories on new courses being built.

We are asking people who are planning or have begun construc-

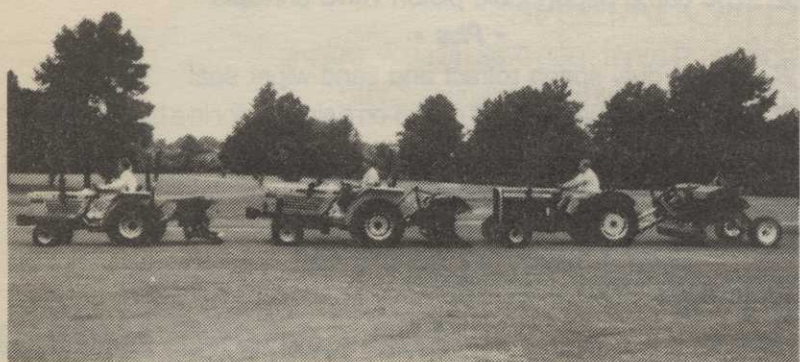
tion on new courses, or building or expanding existing ones, to write to:

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Courses newly planned in U.S.

Location	Course Name	Type	Holes	Address	Architect/Contact
Alabama					
Huntsville	Hampton Cove Lakes	N/A	N/A	N/A	Jack Nicklaus
Arizona					
Goodyear	N/A	D	18	N/A	Arthur Hills
Scottsdale	Troon North	P	36	N/A	Weiskopf/Moorish
California					
Valencia	N/A	D	18	N/A	Ted Robinson
Florida					
Bonita Bay	N/A	N/A	18	N/A	Arthur Hills
Cocoa Beach	Cocoa Beach	D	9	N/A	Gordon G. Lewis
Lake Wales	Lake Village	P	18	N/A	Gordon G. Lewis
Miami	Cutler Bay	P	18	N/A	Jack Nicklaus
Naples	Naples Golf Estates	P	18	N/A	Gordon G. Lewis
Naples	Southampton	P	18	N/A	Gordon G. Lewis
Orlando	Lake Nona GC	N/A	18	N/A	Tom Fazio
Illinois					
Fairview Heights	Royal Oaks GC	N/A	18	N/A	Cass Keller
Lake County	N/A	N/A	18	Mundelin Park and Rec. Dist.	Killian Design Group
Lemont	Ruffled Feathers	P	18	Derby Road	Pete & P.B. Dye
Tinley Park	N/A	N/A	9	163rd St. & Harlem Ave.	Dick Habersteich
Massachusetts					
Ayer	Shaker Hills GC	N/A	18	Shaker Rd.	Robert McGinty
Michigan					
New Buffalo	Whittaker Woods GC	D	18	Wilson Rd.	Daniel O'Brien Sr.
New Jersey					
Skillman	Cherry Valley CC	N/A	18	1544 The Great Rd.	Rees Jones
Ohio					
Aurora	Barrington CC	N/A	36	N/A	Jack Nicklaus
Oklahoma					
Altus	Quartz Mountain	D	9	QM State Park	Art Proctor
Ardmore	Lake Murray	D	9	LM State Park	Art Proctor
Broken Bow	Hochatown	D	9	Hochatown State Park	Art Proctor
Oregon					
Bend	Seventh Mountain Golf Village	N/A	18	Inn of the Seventh Mountain	Robert Muir Graves
Wilsonville	Sandelie GC	D	9	N/A	William Kaiser
Pennsylvania					
Allentown	N/A	P	18	Stabler Exec Park	Geoffrey Cornish
East Donegal Tnp.	N/A	D	18	650 Pinkerton Rd.	Betty Groff
Freeport	River Forest CC	P	18	N/A	Wynn Tredway
Texas					
San Antonio	N/A	D	36	N/A	Frank Hutchinson

From Golf Course News sources

Dyes design Kearney Hill

Pete and P.B. Dye, the father-son architects who have combined on other projects in the past, have a new creation in Lexington, Ky.

Kearney Hill Golf Links, a municipal course operated by the Lexington-Fayette Division of Parks & Recreation, is open featuring two man-made lakes, 71 sand bunkers, and various mounding over 200 acres of open, rolling terrain.

Penncross bentgrass tees and fairways, and Pennlinks bentgrass greens help give the \$3.5-million course championship standards, as do mounds around greens that allow for natural amphitheatre seating.

The par 72 layout plays 6,987 yards from the tiger tees, 6,501 from the white and 5,362 from the forward tees.

For the golfer, a plus is the \$18 green fee.

Meanwhile, P.B. Dye has been hired to design a golf course for the Fisher Island residential and resort community on Biscayne Bay, south of Miami Beach, Fla.

Golfers on the nine-hole, 3,105-yard course will have to contend with prevailing ocean winds and because of this "there's nothing short about it," according to Dye.

Fisher Island will be better manicured than the normal Scottish links-style courses Dye normally designs. Dye refers to it as "The Augusta National Look," and he will incorporate several grasses into the design, including Tifdwarf putting surfaces and Tifgreen 328 fairways.

The golf course and other amenities, including a dinner theater and a European-style spa, are scheduled to open next summer.

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GOVERNMENT UPDATE

Task force wants tighter rein on development in Honolulu

A recent report by the Honolulu Department of Land Utilization calls for tighter scrutiny of golf course developments.

A city task force consisting of members of several agencies suggested the city develop tougher procedures, including public hearings, for developers.

With 40 courses in the planning or construction phase, the City Council is trying to develop a new policy on golf course con-

struction.

A major concern is irrigation water, estimated at 500,000 to 1 million gallons daily for an average course. The use of non-potable water or sewage effluent mixed with water has been suggested. But it isn't certain there is enough available.

The land utilization board is also concerned about new golf courses removing agricultural land.

Sherman Hollow fiasco continues

BY PETER BLAIS

The Sherman Hollow golf course continues its five-year trek through the Vermont regulatory system with little chance of receiving final approval to begin construction before spring, according to the developer.

What happens in the Green Mountain State could affect new golf course development nationwide.

"There's a District 4 Environmental Commission public hearing tonight and there's another scheduled Jan. 26," said Sherman Hollow, Inc. President Paul Truax, while preparing for the Dec. 6 meeting that would help decide the fate of his Huntington, Vt., project. "We'll probably need another in February. That means the earliest we could get approval is March or April... If that happened, we could probably open in the summer of 1992."

But that's a best-case scenario, conceded Truax, who has already spent \$2 million (well over the budgeted \$150,000) on the regulatory process. He pegs his carrying costs at another \$30,000 a month over the past five years. He calls the amount of lost revenue due to the delays "astronomical."

"We've lost five construction seasons already. I hope we don't lose another. But the opponents of this project are hoping it will drag through the summer," he said.

At issue is the proposed \$22-million development, featuring an 18-hole course, luxury condominiums, hotel, conference center, theater, sports center and chapel that would all be located next to the Sherman Hollow ski area.

The plan has danced back and forth between state and district boards since the district commission originally rejected it back in October 1987 because, it felt, developers couldn't ensure that no harm would be done to the environment. District commission fears involved possible pesticide contamination of ground water and the impact of logging activities while clearing the site.

The state board upheld that decision un-

'We've lost five construction seasons already.'

— Paul Truax

til, under heavy pressure from citizens of the financially strapped town of Huntington, it referred the issue back to the district commission last February. A survey revealed that 80 percent of the town's residents approved of the project.

In addition to the economic impact, Truax estimated the golf course complex would supply \$500,000 in annual property taxes, about half of Huntington's total tax collections.

The state board also outlined in February corrective steps developers must take to assure the project complied with regulations.

After six months of intensive study, developers submitted to the district board the results of hydro-geologic studies, aerial mapping, on-site five-foot contours, water-movement tests, and mathematical modeling to determine the fate of pesticides. Truax and his partners then asked for reconsideration of the proposal.

The first district public hearing was held Nov. 6. Truax said the state board had ruled in February that issues already considered positively, could not be re-examined at subsequent district meetings. But at the November hearing, Truax complained the district board allowed discussion of three items that had already been favorably received: the project's impact on town services, water conservation, and air quality resulting from pesticide spraying.

"It bothered me that the district could reopen something the state had ordered closed. It's time-consuming... The hearings are limited to three hours and the opposition spent as much time as possible getting answers to questions on issues that had already been approved," said Truax.

The Dec. 6 meeting also resolved less than hoped, with only two of the four expert witnesses hired by Sherman Hollow getting the opportunity to testify because of prolonged cross-examination by the opponents' lawyer, according to Truax.

Commissioners discussed the possibility of extending the Jan. 26 public hearing past the three-hour time limit in order to speed the process along.

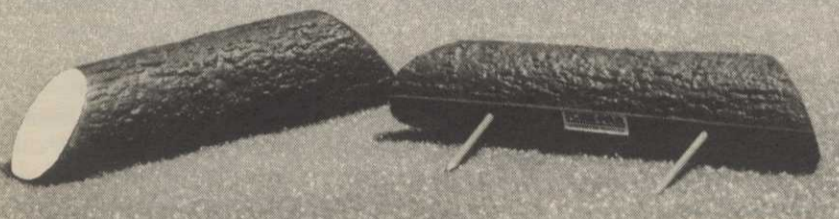
The delays have led to charges by Truax of political misuse of Act 250 (the state's main development control law) and an anti-development attitude that permeates all agencies of Gov. Madeline Kunin's administration.

"The system there will drive development right out of the state," said project architect Paul Ankrom of Florida. "The system can be encumbered by almost anyone."

"Here's Paul with a 1,200-acre site. He only wants to develop 200 acres and leave the rest natural. Most other states would jump at it. But other states are more regulated when it comes to development and can get answers for you faster. Decisions can be made quicker because people know what they're doing. You just don't get firm answers to questions up there (Vermont)."

Ankrom estimated that Truax's project would have taken six months to be approved in his native Florida. Truax might wish he'd taken his plans South when he first headed down Regulation Road five years ago.

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Richart renominated head of ladies' panel

Betty Richart of Ann Arbor, Mich., has been renominated as chairwoman of the Women's Committee of the United States Golf Association.

Members of the committee will be elected Jan. 27 during the USGA's 96th annual meeting in San Diego.

Nominated as vice chairman was Ann Beard of Essex Falls, N.J. These will be the second one-year terms for both Richart and Beard.

Three new members to the Women's Committee were also nominated — Pam Emory of Berwyn, Pa., Marcia Luigs of Indianapolis, Ind., and Lois McTurk of Scarborough, N.Y.

Emory has been a member of the USGA's Girls' Committee since 1984 and served as a member of the 1989 U.S. Amateur Championship Committee at the Merion Golf Club.

Luigs, also a member of the USGA's Girls' Junior Committee, is a past president of the Indianapolis Women's Golf Association.

McTurk has been active in golf administration at local and district levels, with special interest in course rating and rules. She is a member of the USGA Women's Handicap Procedures Committee and the USGA Senior Women's Championship Committee.

ASSOCIATION NEWS

Seminars, honors to spice architects' annual conclave

The American Society of Golf Course Architects will hold its 44th annual meeting March 25-29 at the Inn at Spanish Bay at Pebble Beach, Calif.

Seven professional development seminars will be presented during the course of the California meeting, according to ASGCA President Robert Trent Jones Jr.

In addition, the society will present its

Donald Ross Award to a person who has made significant contributions to the profession of golf course architecture at a special banquet on Monday, March 26.

Another highlight of the Monday meeting will be a roundtable featuring representatives of the Allied Associations of Golf.

The ASGCA board of governors will meet Thursday morning, March 29.

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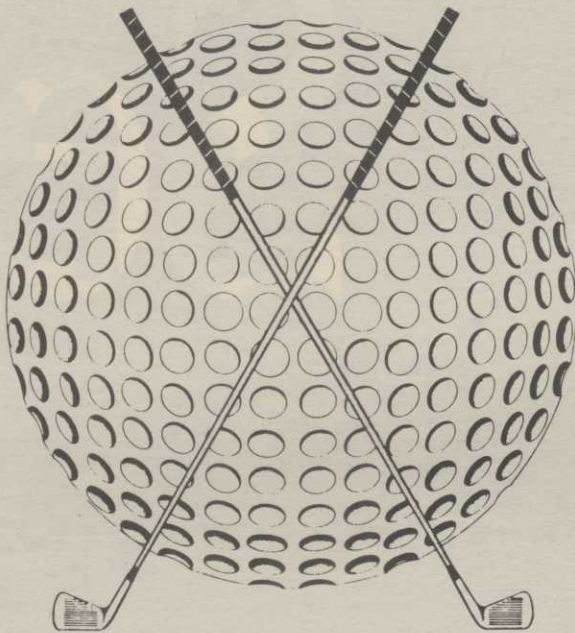
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Spaeth nominated USGA president

C. Grant Spaeth has been nominated the 51st president of the United States Golf Association.

Spaeth joined the USGA's Executive Committee in 1978, serving as both treasurer and secretary before becoming vice president four years ago.

A 1954 Stanford University graduate, he also graduated cum laude from Harvard Law School. He was deputy assistant secretary of the Department of Health, Education and Welfare from 1977 to 1979. An accomplished golfer, he captained Stanford's 1953 NCAA champions and is a former San Francisco junior champion.

The other nominated officers are Stuart F. Bloch of Wheeling, W.Va., and Reg Murphy of Baltimore, Md., as vice presidents; B.P. Russell of Morristown, N.J., for his second term as secretary; and Eugene M. Howerdd of Atlanta for his second term as treasurer.

The Executive Committee will be elected on Jan. 27 at the USGA's 96th annual meeting in San Diego. Three new members have been nominated — Thomas Chisholm of Birmingham, Mich., Jerry Stahl of Rochester, N.Y., and Peter Trenchard of Sister Way, Wis.

Chisholm, 50, is vice president of Eaton Corp., an automotive marketing firm in Southfield, Mich. He is president of the Golf Association of Michigan and will serve

CBS Sports to get award

The board of directors of the Golf Course Association has voted unanimously to award GCA's Award of Merit to CBS Sports. The award will be presented by awards committee chairman Jeff Hoag to Neal Pilson, president of CBS Sports.

The award is presented annually "for achievements which reflect the proud traditions, elevate public awareness and contribute to the advancement of golf as a lifelong recreational and competitive activity."

The award will be presented Jan. 12 at the Wyndham Hotel in Palm Springs, Calif., during the GCA's 8th Annual Conference. Prior recipients have included Nancy Lopez, Chi Chi Rodriguez, Bob Hope, Jack Kidwell, Calvin Peete and the National Golf Foundation.

Seed association starts scholarships

The American Seed Trade Association's Executive Committee has approved a proposal for the organization to provide \$4,000 annually to support the Future Farmers of America scholarship program.

To be administered by the FAA, the program is structured to provide one \$1,000 scholarship for study toward an advanced degree, two \$1,000 scholarships for undergraduate study at four-year colleges or universities, and two \$500 scholarships at junior colleges or vocational schools.

his second term this year.

Stahl, also 50, is a member of Oak Hill Country Club in Rochester, N.Y., where he served as vice president in 1981 and 1982 and president in 1983 and 1984. He also served as co-chairman of the 1989 U.S. Open Championship. He is president of Rochester Lumber Co.

Trenchard, 51, is the owner and manager of Bay Ridge Golf Course and Cherry Hills Golf Course, both in Sturgeon Bay, Wis. He is also president of the board of directors of the Golf Course Association.

USGA giving Kirk Bell distinguished award

Peggy Kirk Bell, cited as a relentless champion of junior golf, will be presented the highest honor given by the USGA — the Bob Jones Award for distinguished sportsmanship in golf — at the association's annual meeting Jan. 27 in San Diego, Calif.

Eugene M. Howerdd Jr., chairman of the Jones award committee, announced the selection of Bell, who is perhaps best known for her efforts at Pine Needles resort

and teaching center in Southern Pines, N.C.

After she and her late husband remodeled Pine Needles in the 1950s, she taught the game to thousands of golfers. The LPGA named her Teacher of the Year and Professional of the Year, and in 1981 she received the National Golf Foundation's Joe Graffis Award, which is given for demonstrating outstanding service and dedication to the educational advancement of golf.

Nebraska group markets calendar

A 1990 calendar featuring 12 golf courses in the state is being marketed as a fund-raiser for the Nebraska Turfgrass Foundation.

Superintendent William Bieck of Heritage Hills Golf Club chaired the calendar committee that included Tom Baker of Field Club of Omaha, Craig Ferguson of Lochland Country Club and John Hadwick of Grand Island Municipal Golf Course.

Funds raised through sales of the calendar will support turfgrass research in Nebraska.

The calendar is available for \$8 from NTF, Box 2118, Hastings, Neb. 68902.

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And, as effective as CHIPCO® SEVIMOL® brand is on turf pests, it's equally reliable against 86 insects known to attack a wide variety of trees

IA installs new officers

The Irrigation Association appointed a handful of new officials, including its new president, Glenn O. Tribe, during its International Irrigation Exposition & Technical Conference in Anaheim, Calif.

Tribe, president of Cornell Pump Co. in Portland, Ore., has been an IA officer the past four years. He also served on its board of directors.

Three new members were also elected to three-year terms on the IA's board of directors. They are Joe Goecke of Valmont Industries, Jack Buzzard of Rain Bird International and Sam Duke of Russell Daniel Irrigation.

USGA eyes environment in future research efforts

The United States Golf Association Turfgrass Research Committee has decided that beginning this year it will participate and act to protect and improve the environment as it relates to golf courses and new golf course construction.

The committee voted, when it met in early December at The Cloisters in Sea Island, Ga., that as a first step in addressing environmental issues, 1990's Turfgrass Research Committee budget will include funds to study what has and has not been

accomplished in environmental research, and what should be done. The USGA will work in cooperation with the GCSAA

The USGA Turfgrass Research Committee, which was formed in 1982, distributes research funds to colleges to further the development and refinement of turfgrasses. The USGA is providing grants totaling \$750,300, covering 20 projects, in 1990.

That will increase the total allocated since 1983 to more than \$3.6 million.

CMAA accredits seven

The Club Managers Association of America has accredited seven people as Certified Club Managers (CCM).

Earning the accreditation were Sharon A. Burwash of Pecan Plantation Country Club, Dennis M. Ebert of Crestwicke Country Club, Catherine Evans of Heather Ridge Country Club, Daniel J. Farrell of Cavalry Club.

Also, Sandra Gervais of The Graduate Club, Graham Laxton of Vancouver Lawn Tennis & Badminton Club, and William L. Turner of Wheeler Consolidate Open Mess.

They qualified for certification by fulfilling requirements over a

period of years in management, experience, education and CMAA activity.

The CCM examination contains 13 subject areas such as private club administration, managerial accounting, food and beverage operations and principles of management.

PLCAA starts new policy for foreign companies

The Professional Lawn Care Association of America has adopted a new policy regarding memberships of international companies and franchise operators.

Franchisors may now join and renew by paying annual membership dues based upon the system-wide sales dollar volume of the franchise. Franchisees join and renew by paying a reduced fee, based upon the direct cost of supplying membership mailings.

The new policy allows the parent company to ensure that each franchisee is kept abreast of the latest training information, customer literature and issues management projects of PLCAA.

Any lawn care company based outside the United States will also be eligible for membership as an international member. Such members have the same privileges and voting rights as regular members, provided all criteria for regular membership classification have been met.

International members are eligible for a flat membership fee, rather than one based on sales volume. For more information, call the PLCAA at 1-800-458-3466 or, outside the United States, 404-977-5222.

Fla. mechanics establish association

The North Florida Turf Equipment Service Technicians Association has been established to raise the professional level of turf equipment mechanics.

The introduction of sophisticated hydraulic systems, safety devices, diesel engines and on-board computers require golf course mechanics to constantly familiarize themselves with new innovations.

NFTESTA will seek to educate members and program participants through the exchange of ideas and procedures involving equipment maintenance and repair.

Long-range goals include the formation of state and national organizations, along with the development of a certification program. Meetings are currently held bi-monthly at various golf courses.

People interested in participating or helping develop additional programs should contact NFTESTA, P.O. Box 16081, Jacksonville, Fla. 32245-6081.

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ON THE MOVE

Landmark Land Co. promotes Brotherton

Jim Brotherton Jr., vice president of resort promotions for Landmark Land Co., Inc., in La Quinta, Calif., has been named director of golf for Oak Valley and Moreno Valley Ranch.

He will continue to supervise and direct Landmark Resort Promotions and for the upcoming months will divide his time between offices in La Quinta, and the two golf developments.

Brotherton joined Landmark in January 1988 as director of resort promotions. Prior to joining Landmark, he was manager of marketing and public relations with the PGA of America. He held several other positions with the PGA and also served as head professional of Indian Spring Country Club in Boynton Beach, Fla. for six years.

Moreno Valley Ranch, the first public course developed by Landmark Land, opened for play in the fall of 1988. The 27-hole Pete Dye

Gift, other officials take posts at Lake Nona

Officials at Lake Nona Estate and Golf Club in Orlando, Fla., have named Jess Gift executive vice president/chief operating officer, John Mallard vice president of sales and marketing, and Dale Gibbons vice president of club operations.

Gift, with more than 17 years experience in real estate, will oversee all club operations and product development for the 6,735-acre planned development.

Mallard, who has 21 years experience in real estate, served as chief operating officer for the national operation of Previews, Inc., an international real-estate marketing firm that specializes in upscale properties.

Gibbons served as general manager at Quail Creek Country Club in Naples, Fla.

Taylor accepts marketing post with Neogen Corp.

Neogen Corp. of Lansing, Mich., has appointed Dr. John Taylor of San Diego, Calif., as a marketing consultant.

Taylor will work exclusively with the EnviroCaster, Neogen's disease-predicting instrument for agricultural product manufacturers.

Formerly with the marketing department at DeKalb, Taylor will represent the biotechnology company throughout the West Coast territory.

design also offers a lighted, 25-acre practice facility.

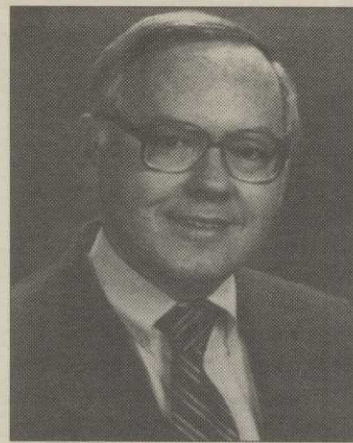
Oak Valley is the largest golf-centered development undertaken to date by Landmark. It is 6,725 acres that will include residential and office areas as well as recreation facilities. The first course is scheduled to open in the summer of 1990. Three others are planned.

Ransomes appoints Norton vice president

Dewey H. Norton has been appointed vice president of finance for Ransomes America Corp., the holding company for Cushman Inc. of Lincoln, Neb., Ransomes Inc. of Johnson Creek, Wis., and Steiner Turf Equipment of Orrville, Ohio.

Norton worked previously for GKN, an international automotive products manufacturer headquartered in Great Britain. Norton is a 1972 graduate of the Wharton School of Finance and a certified management accountant.

He will relocate to Lincoln from Grosse Pointe Woods, Mich.



Dewey H. Norton

Spyglass names Davis super

William Davis of Palm Springs has been named golf course superintendent at Spyglass Hill Golf Course in Pebble Beach, Calif.

Davis has more than 15 years of golf course management at both private and public courses, most recently as equipment supervisor at the Vintage Club in Palm Springs.

He is a certified Class A member of the Golf Course Superintendents Association of America and holds a graduate degree in turf management from Michigan State University.

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All those golfers who blame the green when they miss a putt have just lost their last excuse. Introducing the Greensmaster® 1000 from Toro. The most advanced walk greens mower ever built. Now you can manicure your putting surfaces to a level you've never experienced before. And achieve superior playability as evidenced by a faster, truer ball roll.

A special air-flow basket design packs clippings evenly and keeps them from being deposited back on your greens. Accessories for the Greensmaster 1000 add all the finishing touches to your greens, including a micro-cut bedknife and optional quick up, quick down grooming reel.

Ease of operation is essential for a consistent quality of cut. That's just the reason for Toro's exclusive loop handle. It's ergonomically designed to fit the operator's natural hand position for easy steering. Greater handle area allows short or tall operators the same comfort. Even turn arounds are easier which keeps the operator from having to struggle with the machine.



First Pacific show proves huge success

BY BOB SPIWAK

The first annual Pacific Coast Turf and Landscape Conference was held in Seattle on Dec. 5-7. Enconced in the city's brand new convention center, the show was sponsored by the Western Washington Chapter of GCSAA, Washington State University's Cooperative Extension Services and Jones and Associates, a Spokane consulting firm.

Seventy companies exhibited their wares for almost 250 attendees representing golf courses, municipal entities and private landscapers.

Lectures included chemical mixing, with a focus on safety and equipment, plant disease identification and control, herbicide damage, and pest management.

The latter explored alternatives to chemicals for pest control and effective work with concerned individuals and groups.

Wednesday's session opened with a presentation on toxic waste disposal. A problem confronting all who deal with chemical substances, the discussion centered on details of paperwork, costs and regulations involved in toxic waste disposal. At a subsequent ques-

tion and answer panel discussion, this topic engendered the greatest number of questions from attendees.

There was consensus that household use of small quantities of toxic chemicals, and failure to heed disposal warnings on the packaging, represented an environmental threat equal to or greater than commercial disposal. It was felt that an educational campaign aimed at the homemaker should be begun.

A discussion of groundwater contamination featured the factors and processes involved in the

breakdown of fertilizers and pesticides, how this process impacts groundwater, and what legally constitutes groundwater contamination.

During the following panel discussion, a question was raised about contamination by fungicides. This is a vital issue in a geographic area where various snow molds breed under snow cover, and fungicide applications begin in early autumn.

The speaker, Gwen Stahnke, Ph.D., responded that there has been very little research done on this facet of turfgrass management,

but that it currently is being addressed.

Cliff Weed, Washington Dept of Agriculture, brought the audience up to date on the latest pesticide regulations.

He announced a toughening of penalties in Washington for violations incurred in the use of toxic chemicals (The civil penalty for each violation has been increased from \$1,000 to \$7,500).

The states are obliged to follow the mandate of the federal insecticide, fungicide, rodenticide law (FIRA) but may exceed this law to whatever degree the legislatures impose.

PIRT, a new state panel going into operation in 1990, is the acronym for Pesticide Incident Review and Tracking.

Comprised of various environmentally-involved state agencies, the panel's operation will be funded by increases in licensing and certification fees for applicators of toxic chemicals, as well as a new surcharge to accompany the licenses.

The final day featured a discussion of practical mathematics in turf and landscape management dealing with calculation of the size of an area, spray calibrations and area measurement conversion.

Erosion control, reduced use of chemicals, irrigation and water conservation were the ingredients of the final session. Entitled "Sound Horticultural Practices, the talk centered on mitigation of groundwater contamination.

The conference attendees had ample time during the three-day seminar to view the wares of the exhibitors, especially during an exhibitor-hosted reception after the Dec. 6 session. Exhibits ranged from the latest high-tech tractors to the newest in minute bentgrass seeds.

Helen Jones, of Jones and Associates of Spokane, who was a co-sponsor and in charge of logistics, considered this first show of its kind in Seattle a success. So much so, that Dec. 12-14, 1990 has been set for the second show.

Bob Spiwak is a freelance writer based in Winthrop, Wash.

IAGA honors member Rossi

The International Association of Golf Administrators has honored Don Rossi of Palm Beach Gardens, Fla., with a special award.

Rossi, executive director of Golf Course Builders of America and the National Golf Car Manufacturers Association, was cited for "special recognition for his service and dedication to the IAGA."

The executive director of the National Golf Foundation from 1970 to 1984, Rossi has been a member of the 20-year-old IAGA since 1971.

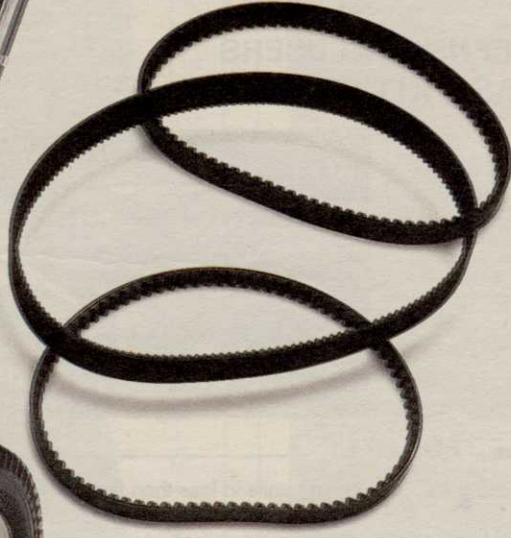
The IAGA membership consists of state, regional and local executive directors of golf associations in the United States as well as Canada, Mexico, Sweden and Great Britain.

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GOLF COURSE NEWS

Ease, safety critical issues to industry

BY NEIL MATTHEWS

Insecticide companies can be divided into two groups: manufacturers and formulators. And issues differ significantly between the two groups.

First, the groups must be defined. Manufacturers, as the name implies, create the final product - biological or chemical - that controls insects. Formulators may re-work a manufacturer's product slightly, add it to other products (e.g. fertilizers) or add other products to it.

That's why issues for one group don't necessarily affect the other.

"Our primary concern is making a product that maintains the manufacturer's intent for the product," said Paul Mengle, manager in Lebanon Chemical Corp.'s Total Turf Care, an insecticide formulator. "For example, if we add an insecticide to a fertilizer, we have to be sure the fertilizer has no negative effect on the insecticide."

Packaging is another area of high interest among formulators because packaging is one way formulators differentiate their products from others on the market. "Insecticides must be delivered to the end user in packages that are easy and safe to use, but they also must not degrade the product inside the package," said Mengle.

This is where common threads begin emerging between the two groups. Like formulators, manufacturers are becoming more sensitive to packaging issues.

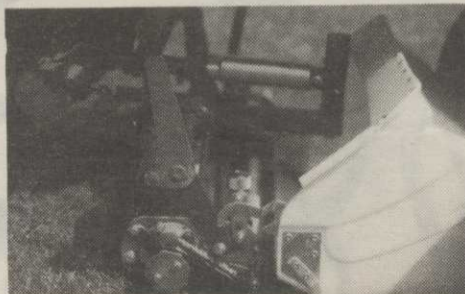
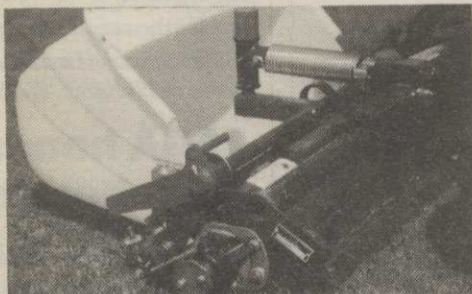
"We've had a water-soluble packet for

Continued on page 19

— The symbols for areas of a golf course that the listed insecticides are used on are: G (greens); T (tees), F (fairways), and R (roughs).

Company	Trade Names	Active Ingredients	Market Area	Area of Course	Liquid or Granular	Contact Person
Ciba-Geigy P.O. Box 18300 Greensboro, N.C. 27419 919-547-1160 Circle No 200	Triumph	Isazofos	Nat'l	GT	L	Joe Prochaska
Creative Sales P.O. Box 501 Fremont, Neb. 68025 800-759-7739 Circle No 201	ACECAP	Acephate (Orhtne)	N. America	FR	N/A	Bryan K. Wolfe
DowElanco 4040 Vincennes Circle Indianapolis, Ind. 800-373-2369 Circle No 202	Dursban	Chloropyrifos	Nat'l	GTFR	Both	Ken Rose
Kincaid Enterprises P.O. Box 549 Nitro, W.Va. 25143 304-755-3377 Circle No 203	Marlate	50% Methoxychlor	Int'l	GTFR	N/A	Jim Ratcliff
Lebanon Chemical P.O. Box 180 Lebanon, Pa. 17042 800-233-0628 Circle No 204	Lebanon, Country Club, Lebanon Pro	Dursban, Dylox, Oftanol, Sevin	Nat'l	GTFR	Both	Greenline
Lesco, Inc. 20005 Lake Rd. Rocky River, Ohio 800-825-3726 Circle No 205	Lesco Oftanol, Sevin SL, Granular Dursban, Granular Sevin	Isofenfos, Chlorpyrofos, Trichlorfon Carbaryl, Horticultural oil	Nat'l	GTFR	N/A	Greg Richards
Midwest Spraying P.O. Box 519 Long Lake, Minn. 55356 800-448-8525 Circle No 206	MSSI	Pyrethrin, d-phenothrin resmethrein,	Int'l	GTFR	L	Ed Meehan
Rhone-Poulenc P.O. Box 12014 Research Triangle Park, N.C. 27709 800-334-9745 Circle No 207	Chipco Mocap, Chipco Sevimol	Mocap-Ethoprop, Semivol-Carbaryl	Nat'l	GTFR	Both	N/A
Sanex Chemicals 15 Webster St. N.Tonawanda, N.Y. 14120 416-677-4890 Circle No 208	Fosran 2E, Prox 1.5, Diazinon 5G and 4E Malathion 50%	Chlorpyrifos, Propoxur	Nat'l	N/A	Both	Philip Lysack
O.M. Scott & Sons 14111 Scottslawn Rd. Marysville, Ohio 43041 513-644-0011 Circle No 209	Fertilizer Plus	Chloropyrifos, Diazinon, Isofenphos Trichlorfon, Carbaryl	Nat'l	GTFR	Both	Joe Bell
Seacoast Laboratories P.O. Box 323 Dayton, N.J. 08810 800-522-4769 Circle No 210	Twin Light	Diazinon, Dursban, Dylox, Oftanol, Sevin	N'East, Mid-Atlantic	FR	G	Irv Baker, Bob Atkin

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Insecticide

Continued from page 18

one of our products available for three years, and we recently received Environmental Protection Agency registration for the first dry flowable insecticide in the industry," said Dr. Mike Shaw, product technical manager in DowElanco's Turf and Ornamental Products. "We're continuing to look at packaging as an important issue in the 1990s."

Joe Prochaska, senior product manager in Ciba-Geigy's Turf and Ornamental Products group, agrees, but puts packaging under a larger heading: product stewardship.

"We're reviewing packaging, formulations and new application techniques as part of our role in the green industry to help it address environmental concerns," said Pro-

chaska. "We're also trying to supply more product information regarding timing and rates for our products."

This concern for product and environmental stewardship stems from the high visibility of the green industry, according to DowElanco's Shaw.

"Regulations are imposed on our industry that might not be placed on others because turf is in our backyards and at our golf courses," said Shaw.

The industry is making efforts to educate the public about its products and their benefits. "As an industry, we've tended to bury our heads in the sand when it comes to educating those outside the industry," said Shaw.

Chemical companies are also trying to be more pro-active by working closely with the EPA and staying aware of local restrictions.

"Federal registration is generally pretty

clear-cut," said Shaw. "Local registrations, where states impose inconsistent regulations, can be more difficult."

The cornerstone of the green industry's education process is research, according to Ciba-Geigy's Prochaska. Pennsylvania State

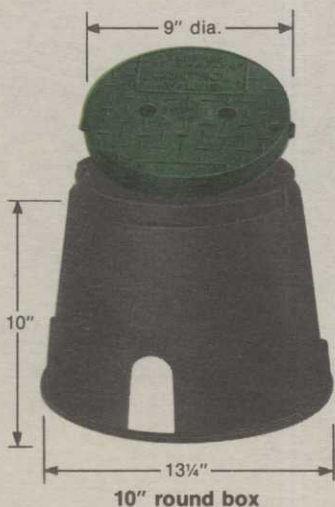
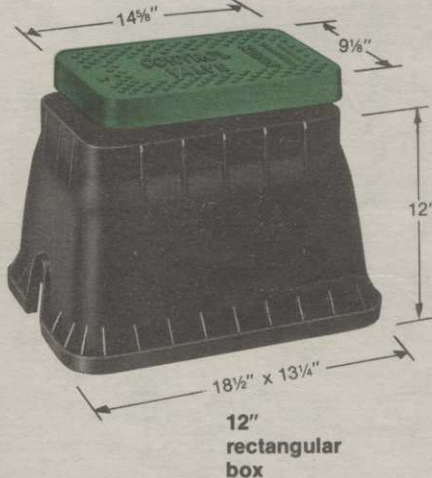
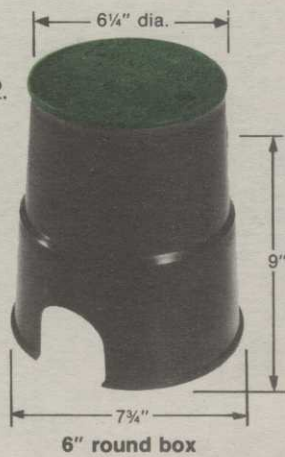
University's Dr. Tom Watschke, Cornell University's Dr. Marty Petrovic and others are working hard to show that lush, healthy turf actually benefits the environment. A solid research base will make educating the public much easier.

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Violating hazardous materials laws

BY MARK LESLIE

Maintaining a hazardous materials safety and waste disposal program correctly is expensive, but it's "much more expensive to handle it wrongly," an expert told lawn care professionals in Ohio in December.

Spending time and money to do the job right may save a golf course superintendent big money, time and headaches that could last for years, Mary Malotke told an audience at the Ohio Turfgrass Conference and Show.

"Some violations can bring a \$25,000 fine and three years in prison, or both, for the owner of the business or for the employee who mismanages chemicals," said Malotke, president of Tencon, Inc., a technical environmental consulting firm in Cincinnati, Ohio.

People who handle chemicals have to worry about breaking the hazardous waste laws, Malotke said.

"Once you can get caught you get on what I call the National Hit List," she said. "Soon the EPA, immigration, sewer inspectors, will all pay a visit... Even if you have no violations, you must lose time with them and with lawyers in the process."

Malotke said the Occupational Safety and Health Administration's

most issued citations in hazardous communication are handed down for:

- 1) No written program.
- 2) No employee training.
- 3) No material safety data sheets (MSDS).
- 4) No in-plant labels on containers storing chemicals.
- 5) MSDS files not up-to-date.
- 6) No chemical inventory.
- 7) No written chemical hazardous determination.

Malotke said superintendents and other managers must train existing employees as soon as possible and new employees be-

fore they start work. "And you must retrain when new chemicals or new hazards are added to the workplace," she said.

Keep a log of training and have the employees sign a statement that they were at the training, she suggested. Also maintain records of any employee exposure, test each employee, and make a note of any questions along with your answers.

While saying that regulations regarding hazardous materials, hazardous substances, hazardous chemicals and hazardous waste are "a maze we don't really know how

to walk our way through or that takes a tremendous amount of time to walk through," it must be done. Or the superintendent might face dire consequences.

"Become familiar with the laws dealing with hazardous wastes," she recommended. "Learn to recognize hazardous materials and situations. Learn how to protect yourselves."

The Department of Transportation regulates transportation of hazardous materials, labeling, quantity size and packaging.

OSHA deals with how people use materials in the workplace;

Federal and state emergency response numbers:
Federal Spill Response 800-424-8802; DOT 202-426-1830.

how to keep the workers safe and how to store the materials; administers compliance with the federal right to know ordinance; and is a place employees can contact to get safety help.

And, once chemicals are used and no longer useful (such as outdated pesticides or chemicals a superintendent doesn't like) they become a waste and are regulated

Anhydrous ammonia not poisonous

The Department of Transportation has announced that it will not classify anhydrous ammonia as a poisonous gas, as it had originally proposed nearly two years ago.

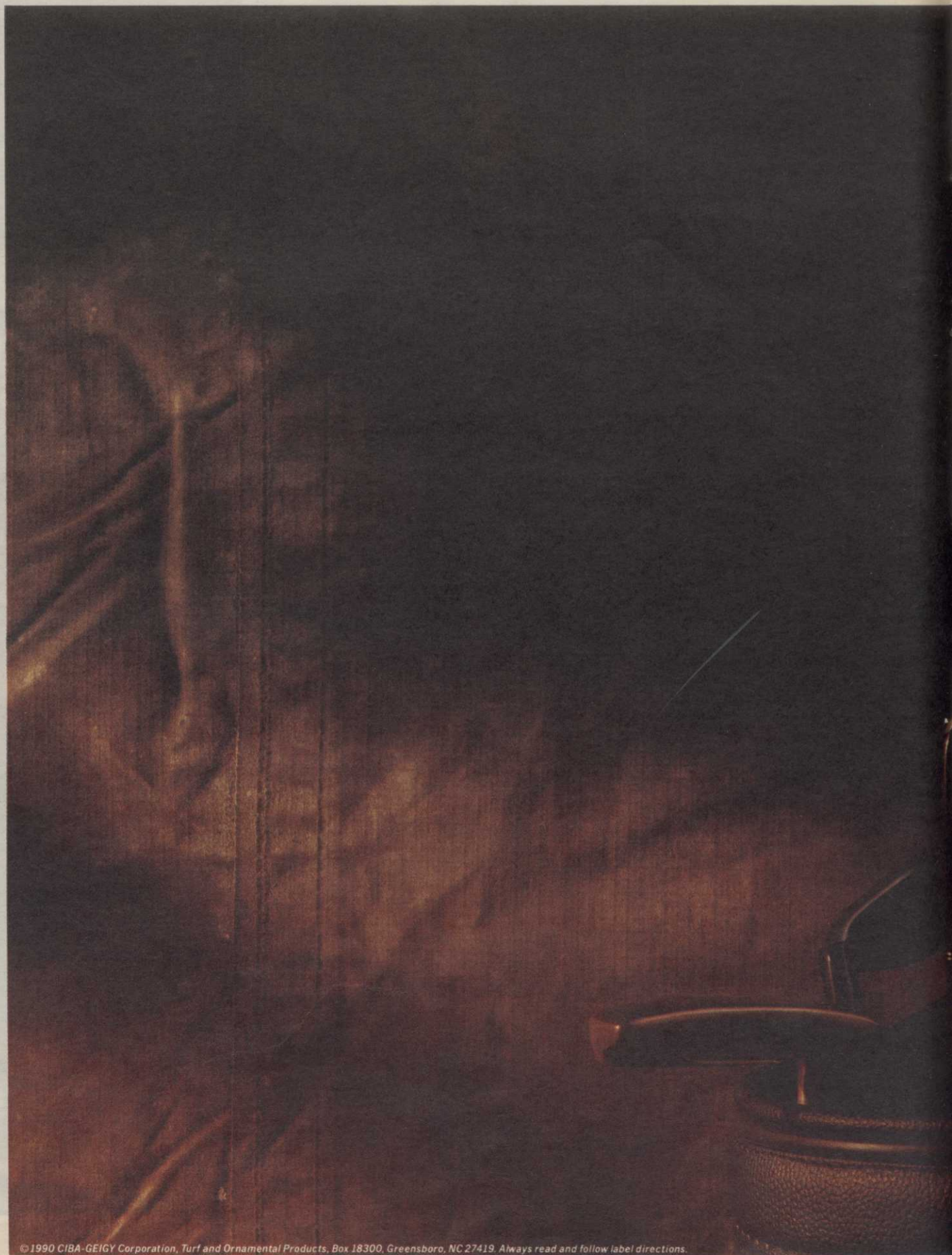
DOT's plan to alter the classification of this key agricultural nitrogen source had been opposed by farm groups and congressional leaders serving on the House and Senate Agriculture committees.

The agency said ammonia will retain its current "nonflammable gas" designation, but it also announced a proposed rule that all ammonia transport tanks must bare the words "inhalation hazard" to underscore the need for special handling precautions necessary to ensure safe transport.

Anhydrous ammonia is a popular source of nitrogen fertilizer containing the highest nutrient value of any commercial nitrogen. For decades, its use, handling and transport have been based on recommended safety practices, the Fertilizer Institute said.

DOT's earlier plan to impose the highly provocative poison label would have meant higher shipping and insurance costs, inclusion of the skull-and-crossbones symbol for this essential plant food, and elevated costs for growers.

Although ammonia has long been termed a nonflammable gas and an inhalation hazard, transport vessels have not carried the inhalation precaution. The proposed rule adds this labeling requirement to the existing standard.



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under the Environmental Protection Agency's 40 CFR rules governing waste products.

"Pesticides, fertilizers, fungicides, herbicides, insecticides — you have all of these and I suspect you recognize these as things you should worry about," Malotke said. "But you also have to be concerned about your maintenance chemicals — the degreasers, the gas, the oil, the blade-honing compounds ... as well as underground tanks.

"You use a lot of different types of chemicals to maintain your equipment. Improperly managed, those can cause you significant

and costly problems."

Malotke cited a local cemetery her company inspected where Tencon found 750 chemicals on the premises. In another inspection some 200 chemicals were in use at a lawn-care company.

Malotke said each handler of chemicals has certain responsibilities under the OSHA law.

The chemical manufacturer or supplier determines which products are hazardous, then must provide for safe packaging and shipping, clearly label the chemicals and provide an accurate material safety data sheet (MSDS), she

said.

The superintendent, as part of his hazardous communication and safety program, must make a list of all chemicals and hazardous materials and where they are ("If you wouldn't put it in your mouth, it goes on the list."); label all containers, including safety cans and tanks; train his employees; create a safe work environment with appropriate safety equipment; and provide MSDS to OSHA, DEP and DOT.

And, she warned: "This is not a do-it-once-and-forget-it job. It's your problem to stay on top of it,

always."

In case of a chemical spill, should you contact the government?

"Yes, the law says you have to call. If you don't, some disgruntled employee may call, and then you're really in trouble," Malotke said.

She said if a superintendent acts responsibly — first, implementing and keeping a hazardous materials program; and, second, contacting authorities when a problem arises — those enforcing the laws usually respond much more leniently in imposing penalties.

"It's the only way to go," she said.

Advice from a pro

Tencon, Inc. President Mary Malotke's talk at the Ohio Turfgrass Conference and Show included some sage advice to golf course superintendents and others in the lawn-care industry.

- "Many in your business buy concentrated chemicals and mix them up," she said. Superintendents should ask producers for labels, put those labels on containers when the chemical is out and in use.

- "Gasoline is a very common and dangerous chemical if you don't use it safely," she said. She said one death a year in Ohio is caused by a gasoline explosion. Gas fumes stay near the ground and can ignite easily, she said.

- Irritants and corrosives must be handled with care, she said, recommending protective clothing. Battery acid can be a problem, especially since batteries can no longer legally be thrown out without precautions. Malotke said 20 batteries explode — from wrongly jump-starting, overloading, or other reasons — every winter in Ohio.

- "Know the symptoms of the chemicals you use," she said.

- Most forms of toxics are invisible.

- Chemicals can't always be detected by sight or smell.

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Ex-astronaut Irwin to speak at GCSAA show

Apollo 15 astronaut Col. James B. Irwin, one of 12 people to walk on the moon, will speak at the Prayer Breakfast during the Golf Course Superintendents Association of America's 61st International Golf Course Conference and Show in Orlando, Fla.

Irwin, who participated in the fourth manned lunar landing, will speak from 7:30 to 9 a.m. Sunday, Feb. 25, at the Orlando Peabody Hotel. The breakfast is open to all faiths.

John Ebel of Barrington Hills (Ill.) Country Club, who heads the breakfast organizers, said, "There should be a lot of families with kids in Orlando," Ebel said. "This will be a great experience for the parents and children."

After retiring from the Air Force in 1972, Irwin founded High Flight Foundation to "inspire and motivate individuals to attain their 'highest flight' in life."

He has written three motivational books, spoken in 55 countries, including the Soviet Union.

About his lunar landing, Irwin said: "The hours that I spent on the moon were the most thrilling of my life. Not because I was there but because I could feel the presence of God. There were times when I was faced with new challenges, and help from God was immediate."

GCSAA conference to stress environment

The environmental impact of golf courses will be a major topic of discussion at the 61st International Golf Course Conference and Show in Orlando, Fla., on Feb. 19-26.

Sponsored by the Golf Course Superintendents Association of America, the conference and show will feature seminars, speakers and forums for GCSAA members

to enhance their understanding of environmental management.

More than 15,000 professional turf managers and other industry leaders are expected to attend the event.

Some of the environmental topics to be discussed are water quality and conservation; integrated pest management; hazard

communication; underground petroleum tanks; and the storage, disposal and recycling of chemicals.

Expert presentations on these and other topics will be made during the Friday session on "Managing Today's Environment."

A special government relations open forum will also be held at the conference.

Attended by GCSAA members, federal regulatory officials and leading scientific researchers, the forum will detail ways to monitor regulation.

It will also inform and educate governmental personnel on the day-to-day management practices at golf courses and facilities.

Events range from learning seminars to dinners

Monday, Feb. 19

- 8 A.M. Monday and Tuesday Two-Day Seminars
- Basic principles of turfgrass management
- Business communication and assertiveness techniques
- Disease identification and control
- Environmental considerations in golf course management
- Golf course design principles
- Insect pests on golf course trees and shrubs
- Introduction to surveying
- Irrigation I: Equipment and technology
- Managerial productivity
- Turfgrasses: Qualities, uses and sources
- Noon Seminar Luncheon

Tuesday, Feb. 20

- 8 A.M. Two-Day Seminars Continue
- One-Day Seminar
- Golf course safety, security and risk management

Wednesday, Feb. 21

- 8 a.m. One-Day Seminars
- Biology of turfgrass soils
- Calculations and practical mathematics to use in turfgrass
- Employee training
- Financial management

- USGA golf course rating system
- Water quality and irrigation scheduling

Wednesday and Thursday Two-Day Seminars

- Basic turfgrass botany and physiology
- Golf car fleet operations
- Golf course construction techniques and management
- Golf course restoration, renovation and construction projects
- Integrated pest management
- Introduction to soil science
- Irrigation II: Systems design and management
- Landscape plant materials
- Plant nutrition and fertilizers
- Public relations and public speaking
- Turfgrass insects: Basic and advanced principles
- Weed control
- Noon Seminar Luncheon

Thursday, Feb. 22

- 8 A.M. Two-Day Seminars Continue
- One-Day Seminars
- Budgeting and forecasting
- Cardiopulmonary resuscitation
- Certification exam study guidelines
- Effective business writing
- Developing your hazard communication program

- Negotiating
- Safe pesticide management
- USGA intermediate rules of golf
- 11 A.M. Conference and Show Registration
- Past Presidents' Luncheon Meeting
- Noon Seminar Luncheon
- 2 P.M. International Reception
- 5:15 P.M. Opening Session and Reception

Friday, Feb. 23

- Education Sessions
- Critically evaluating your needs
- Golf course management techniques
- Managing today's environment
- 11:30 A.M. Certification Luncheon
- 1 P.M. Education Sessions
- Golf course management techniques II
- Southern turfgrass management
- Water quality and distribution
- 5:15 P.M. Members Briefing/Meet the Candidates

Saturday, Feb. 24

- 7:30 A.M. Conference and Show Registration
- 9 A.M. Ribbon Cutting Ceremony
- Certification Examination
- 11 A.M. International Round-Table
- Noon Voting Delegates' Luncheon
- 1 P.M. Symposium
- Paul Rieke, Ph.D and Dr. Robert Carrow "Sand topdressing and cultivation"
- Katy Moss Warner "Disney's commitment to professional horticulture"
- Golf Course Builders of America Session
- Voting Delegate Check-In (Open From 1-4 p.m.)

Sunday, Feb. 25

- 7:30 A.M. Conference and Show Registration
- Prayer Breakfast
- 9 A.M. Trade Show Opens
- Major Speaker Sessions

- Dr. Gayle Carson "Making time work for you"
- Joe Griffith "Grass won't grow if you won't"
- 10 A.M. Government Relations Open Forum
- 1 P.M. American Society of Golf Course Architects Session
- Certification Open Forum
- Golf Course Mechanics Session
- Computer Special Interest Group Meeting
- 7 P.M. President's Reception (By Invitation)

Monday, Feb. 26

- 7:30 A.M. Conference and show registration
- 8 A.M. All Exhibitors Continental Breakfast Meeting
- USGA Green Section Program
- 9 A.M. Trade Show Opens
- Certification Examination
- 1 P.M. Annual Meeting
- 6 P.M. Banquet Reception
- 7 P.M. Annual Banquet

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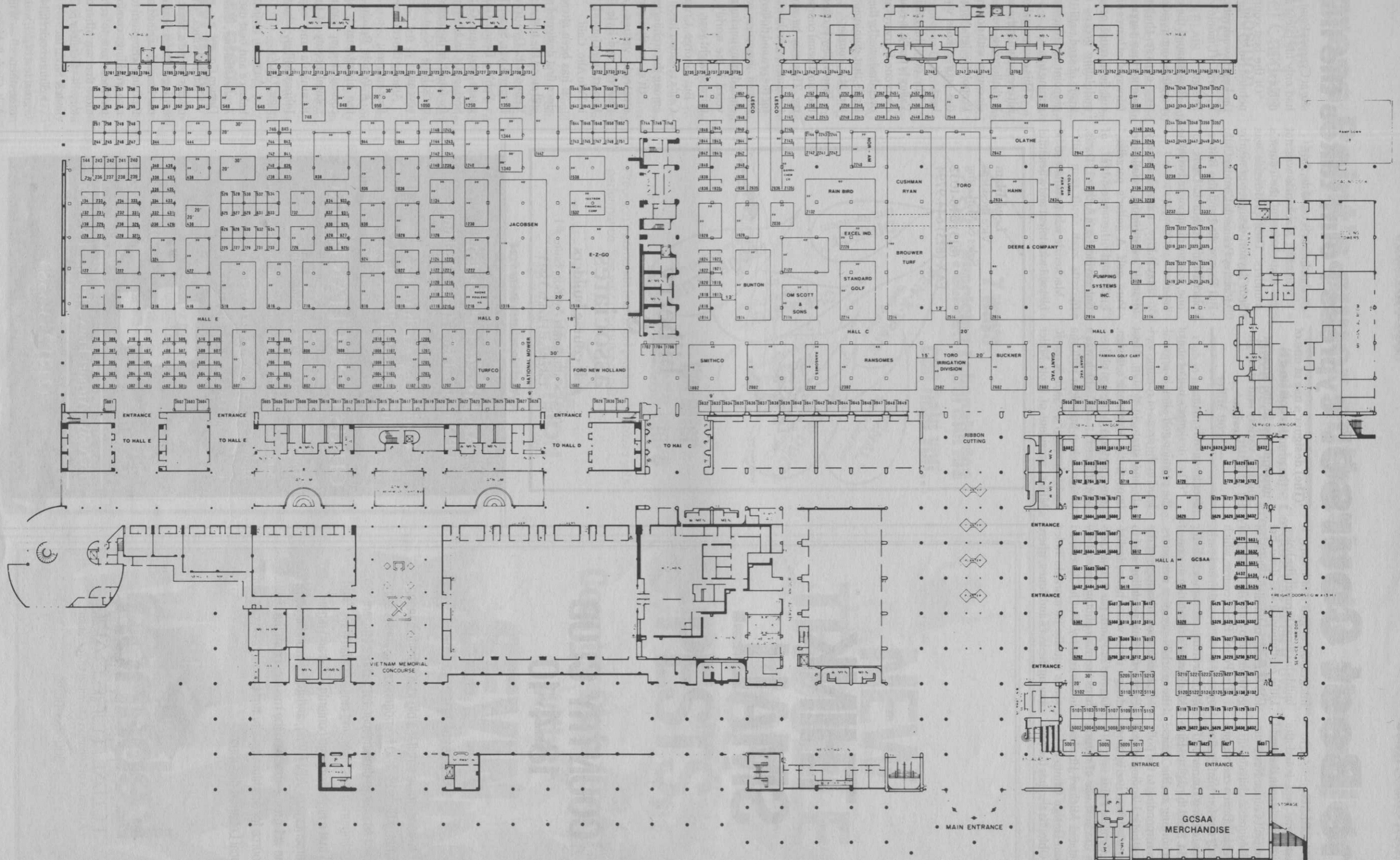
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Courtesy of the Golf Course Superintendents Association of America

The Best Course: Cypress Point takes the honors

BY PETER BLAIS

Cypress Point was voted the best-designed course in the world in a recent Golf Course News survey of golf course architects.

The Pebble Beach course garnered nearly one-fourth of the first-place votes, edging runner-up Pinehurst No. 2 and third-place Pine Valley, according to the course designers responding to the poll.

The aesthetic blending of golf and nature was often cited by those selecting Cypress Point.

"It has the best use of natural assets," stated Michael Hurdzan of Hurdzan Design Group in Columbus, Ohio. "It also has the best

integration of golf and nature. It builds in climax through the holes. Little earthmoving was done, but lots of great, naturalistic fitting of golf holes into a site."

The Pebble Beach course, which opened in 1928, established early, globetrotting designer Alister Mackenzie's reputation as one of the world's premier designers. Mackenzie took advantage of the Pacific Ocean's pounding surf to design three water holes, including the 220-yard, par 3, 16th, perhaps the most-photographed hole in the country. But he developed some equally memorable holes among the trees and dunes, where

'(The) designer's use of one of the premier golf sites is unparalleled in the areas of routing, variety and strategic design.'

— Scott Miller

deer frequently roam.

"(The) designer's use of one of the premier golf sites is unparalleled in the areas of routing, variety and strategic design. Most importantly, Mackenzie's design, to me, portrays the design philosophy of 'less is more,' which was a design axiom prevalent with the early designers," said Scott R. Miller, president of Scott Miller

Design Inc. in Scottsdale, Ariz.

Ironically, Mackenzie was not the first choice of the course's founders. Their preference was Seth Raynor, designer of nearby Monterey Peninsula Country Club. But Raynor died and the Brit replaced him. Arthur L. Davis, for one, was not disappointed with the results.

"Playability, natural beauty, drama, excitement, challenge. Pure golf. A golfer's paradise," enthused the president of Gainesville, Ga.'s Arthur L. Davis, Inc.

Mackenzie was fortunate to be blessed with talent and a beautiful

site at Cypress Point. Donald Ross had only his talent at hand at Pinehurst No. 2.

"Of the best courses, this (Pinehurst No. 2) is the best job with the least to work with," said Ronald E. Forse of Uniontown, Pa.'s Forse Design.

Ross shaped the central North Carolina countryside into a deceptive course that plays much tougher than it appears. An errant fairway shot leaves one with a difficult lie in rough or woods. Small, undulating greens (which were made of sand until 1936), require pinpoint approaches and a deft putting touch.

"This course makes each golfer hit every club in the bag. Each hole is challenging, yet fair. It is a classic course with no gimmicks," said Progolfs' Bruce Borland of the course Ross considered his best.

The only thing fair about Pine Valley is that it is equally unfair to everyone. Fairways and greens are overshadowed by the sandy wastelands that dominate the Clementon, N.J., course.

Pine Valley is often considered the most penal course in the country. That may be why it was just third among architects (who build for the pro and duffer) while a Golf Digest magazine panel that included many touring pros, recently voted it the world's best for the third straight year.

But George Crump and H.S. Colt's creation has its supporters among the architects' fraternity.

"(It's) aesthetic contrast and strategic values (are) unsurpassed," said Kyle D. Phillips of Robert Trent Jones II International in Palo Alto, Calif.

"It has been altered very little since first designed and yet it has still stood the test of time," added Kenneth E. Dye Jr. of Houston's Finger, Dyer, Spann Inc.

Pebble Beach Golf Links, Augusta National GC and Banff Springs GC in Alberta finished tied for fourth in the balloting. Shinnecock Hills GC in New York was seventh.

Among the comments for those four courses:

- Pebble Beach: "Because of the blend/match of great golf course design features with the natural beauty of the Monterey Peninsula and coastline." — Johnny Miller, Johnny Miller Design, Ltd./

- Augusta National: "Perfect balance and best use of land." — Arnold Palmer, Palmer Course Design Co.

- Banff Springs: "Created in one of the world's most spectacular settings, Banff Springs achieves the issue described above (a test for those who yearn to excel while also providing a comfortable round for those out to relax) perhaps more than any other course in history." — Geoffrey S. Cornish, Cornish & Silva, Inc.

- Shinnecock Hills: "Combines a great test of golf with a high level of aesthetics." — William R. Love, Ault, Clark & Assoc., Ltd.

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Cypress Point's super enthusiastic about job

32 years ago Manuel Cardoza took a position he'd never regret

BY PETER BLAIS

Most of the Cypress Point staff had been around for at least 20 years when Manuel Cardoza joined the crew as a part-time laborer in 1957.

"I kept saying there must be something wrong with them," remembered the head superintendent of the world's best designed course (so voted in a recent Golf Course News architects survey). "I couldn't see how anyone could stay in any job for 20 years. One guy told me I'd be here that long. I didn't believe him. But here I am."

And "here" — the Monterey peninsula course in California — is where Cardoza intends to stay, "until they get rid of me. Why leave a good thing?"

The scenery is beautiful, the pay good and the membership treats him well, he explains of his decision to stay at Cypress Point the past 32 years.

Cardoza, who moved to the Pebble Beach area from his native Lemoore (150 miles to the southeast) at age 10, joined the Cypress Point staff after a three-year stint in the Army.

"I didn't want to go back into construction work," Cardoza recalled. "My mother, God bless her, started asking everybody if they knew of a job for me. A relative who was working here (Cypress Point) told her they needed a relief man to fill in for people on vacation."

"They told me the job would only last until the first of the year. But the superintendent, Fred Layton, asked me to stay on steady. I ended up just sticking around."

"Two years later he asked if I'd ever considered running a golf course. I didn't want to leave the area so, even though the pay wasn't that much greater, I became his assistant. Fred left in 1974 and I took over."

The biggest change Cardoza has seen in over the past 32 years is the greater demand for a high-quality playing surface. That has led to more maintenance for him and his 10-man crew.

For example, Cypress Point has more than 1,000 sprinkler heads today, compared to 300 in 1957.

Voters block Crystyl Ranch

Concord, Calif., voters, by a 4-to-1 margin in November, supported a referendum blocking the Crystyl Ranch development, which included a golf course.

The referendum required developers to limit themselves to the 454 homes stipulated for the area in the city's general plan. The city council had approved a limit of 725 homes on the 512-acre site in August, giving rise to the referendum drive.

Those sprinklers reach greens that were mowed just three times a week then compared to six times weekly in the 1980s.

Greens are top-dressed weekly today compared to monthly 30 years ago. They are aerated three to four times annually instead of just once.

Cardoza appreciates the results as a turf professional, though not as a golfer. A bad back restricts his play.

"The last time I played was 13 months ago. It just tears me up for the next three days after I've played," he said.

On those rare occasions he takes

The biggest change Cardoza has seen in over three decades is the greater demand for a high-quality playing surface.

club in hand, the ocean-side 15th hole is his favorite.

"The setting is beautiful on the 16th and everyone thinks it's the best. But I like the one just before it. I like the way it's just tucked in there. It's a short par 3, just 143 yards from the blue tees (compared to 220 on the 16th) and 127 from the whites," said Cardoza.

There are seven courses on the

Monterey peninsula. All share the same type soil, the same conditions, the same weather. But each superintendent thinks his maintenance problems are the worst, said Cardoza.

As for comparing the beauty of his course to the others, or to any course, Cardoza is diplomatic.

"There are others that are just as great around. This one gets a lot

of publicity. I think we have a wonderful design, great location and some outstanding holes," he said.

The members appreciate what they have. Although their numbers haven't increased significantly, the amount they play has, up from 9,000 rounds yearly in the late 1950s to about 14,000 today, said Cardoza.

The recent earthquake didn't slow them down at all, either.

"We were rattled around a little bit, but there was no major damage. We were without power for a few days and we canceled a ladies invitational tournament. But we never stopped play," he said.

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Best Architect in History: It's Ross hands down

BY PETER BLAIS

Donald Ross and Alister Mackenzie were selected the top two architects in history in Golf Course News' survey of course designers.

The Scot Ross and Brit Mackenzie finished with 19-1/2 and 12 votes, respectively, among the 46 present-day architects responding.

Others receiving multiple votes were A.W. Tillinghast (5), Robert Trent Jones Sr. (4), Dick Wilson (2) and Stanley Thompson (2). Jones is the only living member of the six.

"He's generally considered the grand master," conceded Geoffrey



Donald Ross

S. Cornish, co-author of the historical text "The Golf Course," who cast his own ballot for Ross' countryman Thompson.

"He built wonderfully playable courses. He did what architects strive for today — to build a challenging course for the pros that can also provide a relaxing round for the average golfer."

Ross supporters pointed to the "naturalness" of his courses which were built in harmony with the surrounding landscape.

"He was one of the best at blending his work in with the surroundings," said Edward M. Beidel of

Hassenplug Associates, Inc. "I played Pinehurst No. 2 recently and that just confirmed my belief."

Of the approximately 600 courses it's believed Ross designed, Pinehurst No. 2 was his favorite. He lived along the course most of his life and constantly tinkered with it, trying to get it perfect.

"I've played more Ross courses than anything else," said Thomas E. Clark of Ault, Clark & Associates. "Of all of them, I think I enjoyed Pinehurst No. 2 the most. So many architects and pros seem to think it has the best greens and layouts in the country, especially

'He built wonderfully playable courses.'
— Geoffrey Cornish

the greens. It's a course you have to play several times to really appreciate."

"His courses emphasized strategy and playability," explained Arthur L. Davis. "He provided an opportunity for choice in shot-making that balanced a course so that the good and the average player could compete and enjoy themselves."

Many of Ross' courses have been tampered with over the years. But there is a movement afoot to restore them to their original layout or in line with Ross' philosophy.

"H.S. Colt believed great golf courses continued to live over time," said Cornish, quoting one of the best-known English designers. "Ross built very natural courses that have continued to live."

While Ross confined his artistry mainly to the United States and Canada, Mackenzie's canvas was the world. Mackenzie designs can be found on four continents.

"He was the first globetrotter," said Cornish.

However, he is perhaps best known for two U.S. courses. "I'm basing my decision mainly on two courses, Augusta National and Cypress Point," said Earl Stone.

Gary A. Panks of Graham/Panks International cited another Mackenzie effort, Royal Melbourne G.C. "It's rated by many as the best 36 (holes) in the world. He was a master at harmonizing his work with the environment," said Panks.

Harmonizing sometimes meant camouflaging to Mackenzie, who developed camouflage techniques as a member of the British Royal Engineers during World War I.

"A bunker will look like it's right up next to a green on some of his holes. But when you get up to it you find it's still 20 yards away," said Cornish.

Mackenzie and Thompson were also the first designers to incorporate the five basics of landscape architecture — harmony, proportion, balance, rhythm and emphasis — according to Cornish.

Among the other top selections, Tillinghast and Wilson were both born in Philadelphia. Tillinghast designed Winged Foot in Mamaroneck, N.Y., and Baltusrol in Springfield, N.J. Wilson was the architect of Indian Creek Club in Miami Beach and West Palm Beach Country Club.

Thompson worked throughout the world, but may be best known for his masterpieces Banff Springs and Jasper Park in the Canadian Rockies. He trained the English-born Jones, who later became his partner.

The first recipient of the American Society of Golf Course Architects' Donald Ross Award for outstanding contributions in the field, Jones has designed hundreds of courses throughout the world.



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The Best Living: R.T. Jones

Robert Trent Jones Sr. was the leading vote-getter among living golf course architects in the survey asking for the best architect of all time. Larry Dennis, who worked with Jones on Jones' book "Golf's Magnificent Challenge," shares this piece.

BY LARRY DENNIS

Jack Nicklaus stood on the first tee at Muirfield Village Golf Club on a summer day in 1974 and surveyed the rolling, wooded Ohio landscape. Nicklaus the player and friend Tom Weiskopf were about to start the official opening round at Muirfield, the dream course of Nicklaus the architect. The architect then made a prescient observation.

"It's not hard," Nicklaus admitted, "to design a great course on land like this with an unlimited budget."

Of course it's not. Assuming the designer has even a modicum of expertise, the task with good land is basically to avoid screwing it up. The holes are there. The beauty is there. Just find it all.

Muirfield Vilalge, favored by its

terrain and, at inception, enough money to do it right, has gone on to rank among the world's best courses. Others are not so lucky at birth. Nature created the first courses, at St. Andrews and the other Scotland links. Nowadays man must do it, and many, if not most, venues leave something to be desired.

Herbert Warren Wind, the peerless golf historian, once noted: "I think it's the easiest thing in the world to criticize a finished course... But it's helpful if one occasionally sees a golf course before it is finished. When you see it in its rough, rude form, the land-

scape that the golf course architect takes over tells you something. I've been frightened a great deal when I've walked out and seen the land that certain friends had to work with — part of it swamp, no natural features in sight and the worst sort of trees. On top of it, the man has a low budget to work with ... You wonder how he is going to get it so that the featureless land really plays, and when you return to this land and see what he's done with it, then you can appreciate the work that the professional architect is able to do."

Every architect knows the feel-

Continued on page 30

GCN's first survey

Several stories dealing with *Golf Course News'* year-end architects' survey appear in this issue and more are on the way.

The course designers chose Tom Fazio as 1989's Architect of the Year. Rees Jones finished second. Arthur Hills, Ed Seay, Jack Nicklaus and Jay Moorish tied for third.

Donald Ross and Alister Mackenzie were 1-2 in the Best Architect in History category. They were followed by A.W. Tillinghast, Robert Trent Jones, Sr., Dick Wilson and Stanley Thompson.

Wadsworth Construction Co. was the runaway winner for Best Builder of 1989. Golf Course Consultants, Landscapes Unlimited and Paul Clute followed.

Cypress Point edged out Pinehurst No. 2 as the Best Course. Others receiving multiple votes were Pine Valley, Pebble Beach, Augusta National, Banff Springs and Shinnecock Hills.

We'd like to thank those who took the time to respond to the survey and look forward to working with you in the future.

Jones took golf around world, says Perry Dye

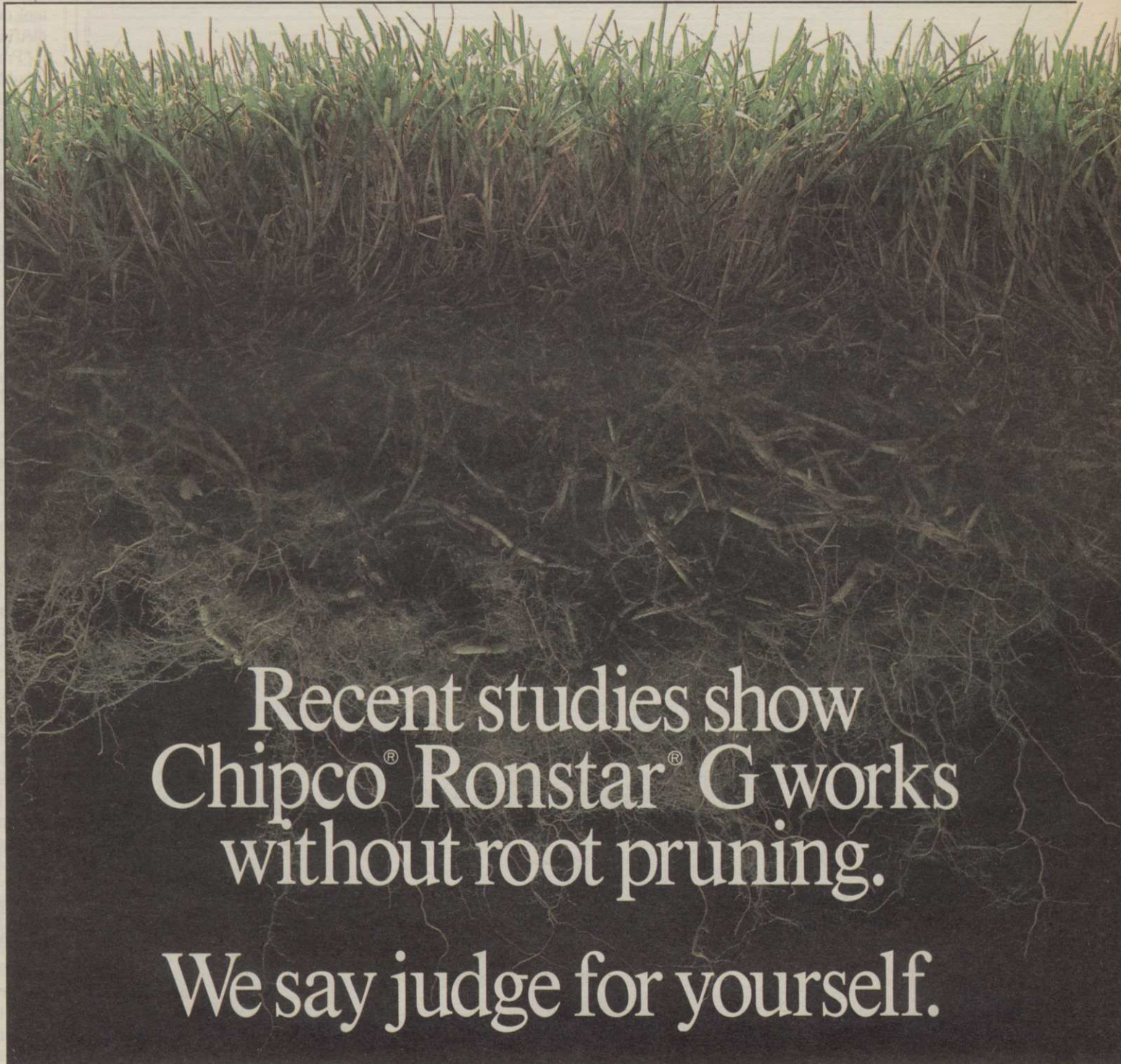
The president of the Golf Course Builders of America laid upon the shoulders of Robert Trent Jones Sr. the credit for taking golf around the globe.

"If it weren't for him it really wouldn't be a worldwide game," said Perry Dye of Dye Design Inc. in Denver, Colo. "He's the one who took it around the world. My dad's (architect Pete) done an unbelievable job domestically but Mr. Jones took it around the world ... after the Scotsmen of the 1920s."

Dye cited Jones' extensive travels when "with the assistance of the military, the World Bank and the development concept, he developed 600 golf courses during a 20-year period.

"Really, nobody has done that since then, so whatever exposure golf got (around the world) as far as design, architecture and construction are concerned was done once, by him," Dye said.

"These were sometimes small islands, small countries. But he stopped by and built a golf course and started the game there. And now they've built up a golf population," he said.



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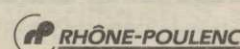
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Fazio

Continued from page 1

ers want. I get six to eight prospects every week. It's incredible the way the industry continues to grow. The prospects just get better and better. So I can't say this has been an unusually good year. They've all been good lately."

The North Carolina architect completed three courses in 1989 — Shadow Creek in Las Vegas; Thorne Blade in Greenville, S.C.; and Emerald Dunes in West Palm Beach, Fla.

Shadow Creek alone might have been enough to earn Fazio the year's best architect designation. A whole-new environment had to be created out of the barren desert site. The \$13-million course required trucking in record amounts of soil (2.5 million cubic yards), sod (110 acres) and trees (7,000).

"Shadow Creek is simply indescribable," said Fazio about the course built by Golden Nugget owner Steve Wynne as a private playground for him and selected friends.

Thorne Blade opened last spring. A 45-minute drive from his home, "it's very special to me," said Fazio. "It's a local course that will be used mainly by those living in the community. It won't be advertised nationally because it's been sold out locally. It was a fun project."

Emerald Dunes reunited Fazio with Ray Finch. Finch was one of the principals in Wild Dunes in South Carolina, a course completed in 1980 that helped launch Fazio into this decade.

Fazio's memories of Wild Dunes, and all his courses, are vivid. Part of the reason is that, partly because of personal beliefs and mainly

because of family commitments (six children), he only takes on six to eight projects a year. Most of those are within a two-hour private jet ride of his home.

"He embodies my philosophy," explained Arthur L. Davis of his vote for Fazio as the year's best. "He does quality work on a few courses. He doesn't do volume like a lot of other architects are doing today. And I just like him personally."

Along with Wild Dunes, some of Fazio's better-known courses are The Vintage Club in California, Barton Creek in Texas, PGA National in Florida and Wade Hampton in North Carolina. But he is equally fond of lesser-known projects like John's Island in Florida. ("The Jupiter Hills of the 1980s" — Fazio); Long Point at Amelia Island, Fla.; Golden Eagle

in Tallahassee, Fla.; Lake Nona in Orlando, Fla.; Golf Club of Oklahoma in Broken Arrow; and Ventana Canyon in Tuscon, Ariz.

"They've all made me feel good," said Fazio.

And most all have received favorable publicity. In fact, Fazio has been one of the darlings of the golf media for some time.

"I voted for him primarily because of all the publicity he's received," said Lindsay Ervin.

"It seems he's received more coverage than anybody in some of the journals," added Edward M. Beidel Jr. of Hassenplug Associates.

Actually, the Fazio name has been in the news for more than 40 years. George Fazio, Tom's uncle and the founder of Fazio Golf Course Designers, Inc., was a top-flight pro golfer in the 1940s and 1950s before getting into course architecture in the early 1960s. Tom joined the company in 1962 at age 17 and took on increasing responsibility until George died in 1986.

"Probably not," responded Tom when asked if publicity might be a major reason for his selection as best architect. "My uncle was very well recognized, so we've always gotten a lot anyway. I don't try to separate the George Fazio name from Tom Fazio. Even though he's passed away, he's still very much here. . . I never think about the publicity. Although it's nice to have because it helps keep the company going."

The company is going strong into the next decade. He is already working on projects in Baltimore, Nashville, Pinehurst, N.C., Naperville, Texas, and Chicago.

"My 1990 calendar is already committed," said Fazio.

With a half-dozen offers coming in every week, and his personal policy of accepting no more than eight projects a year, Fazio should have no problem keeping busy into the next century.

The same can be said of Rees Jones, who finished runner-up to Fazio in the voting.

The son of Robert Trent Jones Sr. has emerged from the shadow of his legendary father to do some first-class work of his own. Among his more famous courses are the seventh course at Pinehurst and his restoration of The Country Club in Brookline, Mass., in preparation for the 1988 U.S. Open.

"It's nice to have friends among your peers. We all have the same common goal — to build the best possible facility within the constraints of the job," said Rees Jones.

1989 saw the completion of Charleston National in Mt. Pleasant, S.C.; Southbridge in Savannah, Ga.; Bryan Park in Greensburg, N.C.; a nine-hole restoration at Haig Point on Daufuskie Island, S.C.; Sea Trail Rees Jones course at Sunset Beach, N.C.; remodeling of Congressional Country Club's Blue Course in Bethesda, Md.; and renovation of Hazeltine National in Chaska, Minn., in preparation for the 1991 U.S. Open.

Work under construction or scheduled to begin this year includes The Peninsula Club on Lake Norman in Cornelius, N.C.; Golden Horseshoes No. 2 in Williamsburg, Va.; Cherry Valley in Montgomery Township, N.J.; Atlantic in Bridgehampton, N.Y., on Long Island; Greenspring near Richmond, Va.; and Brant Island in Mattapoisett, Mass.

"I'm a big Rees Jones fan," said Fazio. "We visit each other occasionally and I consider him a personal friend. We're both members of the same club in New Jersey (Pine Valley). His situation is similar to mine in terms of family and the number of courses he'll take on.

"I don't want to take on too many projects at a time," explained Jones. "I'm a hands-on architect. If you take on too many jobs, you just can't get to the job site enough to make the improvements to the course at the proper time, or make changes in time without costing the client more money."

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Wadsworth

Continued from page 1

than doubling their closest competition — Golf Course Consultants and Landscapes Unlimited.

Getting the job done right and on time was mentioned again and again by architects selecting Wadsworth.

"I've done a number of courses with them and they've been the best to work with," said Gary A. Panks of Graham/Panks International, who most recently worked with Wadsworth on Sedona Golf Resort in Arizona, which opened in October 1988. "They have a reputation for doing things right. And when there's a problem, they get in quickly and make it right."

"They just do a super job and are a pleasure to work with. They're the kind of company that gets in and gets the job done with very few

problems. That's very important to an architect," added Thomas E. Clark of Ault, Clark & Associates, Ltd. The Wheaton, Md., firm designed Wadsworth-built Emerald River Country Club in Laughlin, Nev., scheduled to open this month.

Wadsworth and current vice chairman of the board John Cotter started the company as a two-man operation in 1958 in Plainfield, Ill. The firm did one or two courses annually in those early years.

"Things really took off in the late 1960s and early 1970s when the golf boom started," said Paul Eldredge, president of the Midwest office. "We moved into Florida in the late 1960s, did Innisbrook GC in Tarpon Springs and opened an office in Oldsmar."

Construction slowed during the recession

of the late 1970s. Wadsworth expanded into the Southwest in search of new jobs, opening a third office in Buckeye, Ariz., just outside Phoenix four years ago.

Wadsworth has kept pace with the latest boom. The company is building between 15 and 20 courses a year. It has grown to about 200 full-time employees. Annual revenues run from \$40 million to \$50 million.

Wadsworth has done several courses in Hawaii and will soon open a Pacific office there. That would seem a natural jumping-off spot for getting into the lucrative Japanese market. But that isn't in the cards, according to the company chairman.

"We've done some work in Australia, but we don't have any big plans beyond the United States," said Wadsworth. "It's easier for an

architect who can just take his pencil and go to another country. We have all our own equipment, facilities and manpower right here. Moving that stuff overseas creates all sorts of problems."

The 60-year-old founder has seen a number of changes in his 30-plus years in the business.

"The biggest thing is the cost of building a course," he said. "It's 1,000 percent more than it was when we started. We used to be able to build a nice course for \$200,000. Today you start at \$2 million and go up from there."

Automatic irrigation systems, fairway watering, a variety of grass types, sodding and extra features like stone walls, elaborate bridges, lake edging and drainage structures were rarely used options that have become standard equip-

Continued on page 31

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R.T. Jones

Continued from page 27

ing. Ask Pete Dye, a master at making something out of nothing. PGA West, the wicked beauty carved out of desert flatland, may be his best example.

Better yet, ask Robert Trent Jones Sr., At 83, he is golf's master builder. He has designed almost 500 courses around the world, and he pioneered the art of creating them in impossible places. He literally has grown grass where nobody thought it could be grown. As a result, there are courses where nobody suspected they could be built.

Every golf course architect, especially these days, has to deal with regulations concerning wetlands, flood plains and the like ... and with environmentalists who want to protect every living organism in sight.

Trent Jones has dealt successfully with more basic problems. He boasts that he has found very few places during his career where a golf course could not be built and grass grown.

In 1958 he built Dorado Beach for Laurance Rockefeller on Puerto Rico property that was basically all sand. Despite a number of doubt-

He literally has grown grass where nobody thought it could be grown. As a result, there are courses where nobody suspected they could be built.

ers, including the U.S. Golf Association's Green Section, Jones said, "Hell, I'm not going to put topsoil on the sand. They grow grass on sand all over the British Isles, and I don't see any reason we can't do it here. All you need is water and fertilizer."

Jones theorized that if grass were planted in sand, the roots

would grow deeper. With drainage installed underneath, running into a pond, the moisture level could be controlled. Water draining into the pond meant that the moisture level was satisfactory and the sprinklers should be shut off. That eliminated the chance of "brown patch" caused by excessive moisture.

The scheme worked. On opening day, Rockefeller said to Jones, "Trent, this is the most gorgeous turf I've seen."

At Mauna Kea on Hawaii, a course also built for Rockefeller in 1965, Jones was faced with exciting terrain but desolate land covered with volcanic rock, cinders and boulders. The average rainfall was just eight inches a year. Rockefeller had doubts.

But Jones determined that the lava rock could be crushed and used as a soil base that, with enough water, would support grass.

Using a bulldozer fitted with a special ribbed roller, his crew crushed the lava into a red dust the consistency of talcum powder and spread it over the course. Jones improvised a watering system to stabilize the lava dust, mixed it with coral sand and put the seed down. When the grass came up, it was weed-free, because nothing had ever grown in the material before.

Jones then drilled two 400-foot wells that produce a million gallons of water a day, installed one of the first fully automatic underground irrigation systems and, presto!, created an oasis.

Since then, half a dozen courses have been built on the island using the same technique.

While Jones was building the Pevero Golf Club at Costa Smeralda in Sardinia for the Aga Kahn in the early 1970s, Italian agronomists advised the Aga Kahn that he would have to import topsoil and spread a foot of it over the course, at a cost of millions.

Jones, however, had discovered a lot of disintegrated granite on the property that could be crushed into dust and, with nutrients added, serve as soil. He said, "Your Highness, it's your money, but if you want to take a chance on spending \$35,000 for seed, I don't think you'll have to spend millions for topsoil."

Two years later the Italian Open was played at Pevero on lush grass growing in granite. It saved the Aga Kahn \$2.5 million.

"The staff is still upset with me," Jones chuckles. "One said to me, 'Every time it comes to spending money, he relates your story to us.'"

Sometimes Jones doesn't even need land to create a course. He built Marine Park in Brooklyn for the New York Department of Parks on swampland, filling it in with garbage and inorganic refuse, spreading a heavy layer of sand over each layer of organic fill. The project took 18 years before its completion in 1963, but there now is a fine golf course where no one imagined there could be.

Jones is using a similar technique to build a course called Stockley Park, near Heathrow Airport outside London, on an old garbage dump.

Might we next expect to see Jones lay out 18 lush holes in thin air? Not likely, perhaps ... but maybe we shouldn't bet against it.

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Wadsworth

Continued from page 29
ment on today's courses, according to Wadsworth.

"The other major difference is the number of courses being built," he said.

"You could almost count the number of new courses on two hands in the mid-1950s. Now you've got well over 200 courses a year in this country and we've been as high as 350. We've tried to keep pace with that increase."

OSU

Continued from page 1

exactly where you want it and leave residue of less than one-half a part per million of the insecticide on the grass blade. "You look at those results and then you really begin to think about the implications," he said.

For example, he mentioned the milky disease (a bacterial disease that infects grubs). Each Japanese beetle has one species of this disease that is formulated in a product that is available but it is specific to the Japanese beetle. The masked chaffer has its own basili; aetenias has its own basili that's not infectious against the Japanese beetle but only infectious against the aetenias.

"There's no market for these other species of basili right now because there's no efficient way to apply them," Niemczyk said. "But now that we've come up with an efficient way of placing them in narrow bands below the surface three inches apart, it's entirely possible that we may develop the other species of the basili (milky disease) that is infectious against other species of grubs so that we can use them, too."

"So it opens the door to a possibility that didn't exist before because we had no efficient way (at least theoretically) of putting the material down. A lot of people are interested."

Ringer, the company that has the controlling interest in the milky disease product, is interested in preparing it in such a way that it will stay in suspension or stay better. Plus, the researchers used some granular material in their experiments last summer, and the parasitic nematodes can be placed in liquid suspension.

"That is the most exciting part," Niemczyk said, "because I think we can make these biological control materials work the year they are applied... That remains to be demonstrated research-wise, but I am convinced that we can do it."

Niemczyk said the research "still has a ways to go. We've learned a number of things. We've learned that the material has to be placed correctly — if it's with grubs it has to be placed where the grub is or slightly above that. With the Rain Saver (equipment) we placed it 1/4 to 1/2 inch below that and that didn't work as well as a surface application which told us that the

Among the courses Wadsworth has worked on this year are Tom Fazio's Shadow Creek in Las Vegas; Michael Hurdzan's Cobblestone Creek in Rochester, N.Y.; Arthur Hills' Green Ridge Country Club in Grand Rapids, Mich.; Jack Nicklaus' Kiele-Westin in Hawaii; Denis Griffith's Chi Chi Rodriguez Youth Foundation GC in Clearwater, Fla.; Robert Trent Jones Jr.'s Southern Palms Ranch in Desert Springs, Calif.; and Rees Jones' Greenbriar Country Club in New Bern, N.C.

Increased building has turned golf course construction into a very competitive business with many new

contractors having been attracted to the field.

"You've got a lot of contractors who have been successful in other areas who are jumping into golf course work," noted Eldredge.

"Sometimes they make it and sometimes they don't. Those that fail often don't understand what's involved and don't bid high enough on a job. In the end, it's the owner and architect who lose.

"The key always comes back to quality and good business practices that can help you get through the rough times. You must satisfy the architects. They're like artists. We

(construction companies) are like a big paint brush. It's up to us to paint what they have in mind."

One innovative approach Wadsworth has taken to assure quality work is employee ownership. Wadsworth is divided into four companies — Wadsworth Midwest, Southeast, Southwest and Pacific. The employees own as much as 50 percent of each firm.

"I wanted to create the same business spirit that I had when I first started," said the company's founder. "I wanted people to feel they were a part of the company and be totally involved in what they were doing. It's

proven to be worthwhile and is probably one of the major reasons we have the reputation we do."

Despite a hot course-building market, 1989 was an average year, at best, in terms of profits, according to Eldredge. The reason was the weather.

"We did a lot of work in the Midwest and the weather was just horrible at times. It pushed a lot of projects back that we won't be able to seed until spring. 1990 is looking good," Eldredge said.

"There'll be a little lull over the winter. But it looks like we'll have a lot of activity next year," he added.

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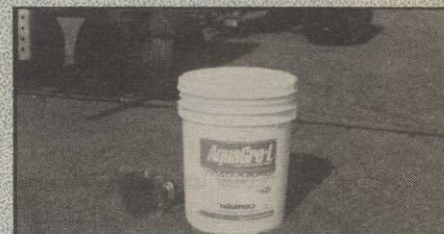
AquaGro Injectable combines AquaGro's proven performance with economical and flexible application rates. Now you can get AquaGro benefits everywhere you irrigate. Injectable — a 33 percent active ingredient formulation — pumps easily through all available injection systems.

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For free information circle #135

*Aquatrols guarantees you will be satisfied with the performance of any AquaGro formulation, when used as directed, or your money back. Simply send proof of purchase and a brief reason for dissatisfaction to Aquatrols.

Continued on page 32

EQUIPMENT NEWS

Neogen ranked among fastest-growing firms

Neogen Corp., a Lansing, Mich.-based biotechnology firm, has been ranked the 46th fastest growing private company in the nation by "Inc." magazine. One of Neogen's three primary product lines is the EnviroCaster, a computerized, solar-powered agricultural and turf management instrument.

The Inc. 500 list is based on percentage growth in sales from 1984 to 1988. To qualify, companies must have been independent and privately held as of July 3 and maintain sales between \$100,000 and \$25 million. More than 20,000 potential candidates received nominations for the 1989 listing.

Hunter honors Sarsfields for achievement

Irrigation industry technical consultants Chet and Wanda Sarsfield of Lafayette, Calif., have been presented the Hunter Industries' 1989 Industry Achievement Award at a national distributor meeting in San Diego.

As owners of a textbook publishing firm, Irrigation Technical Services, the Sarsfields were honored for their educational contributions to the field of irrigation.

Chet Sarsfield's textbook, "The ABCs of Lawn Sprinkler Systems," is widely used in college landscape design programs and is recognized



Hunter Industries founder Edwin J. Hunter, right, presents an achievement award to Chet and Wanda Sarsfield.

as one of the most authoritative publications in the field. He has also written many irrigation technical manuals for agricultural en-

gineers, ornamental horticulturists and landscape architects.

Wanda Sarsfield is a partner in Irrigation Technical Services and has served as executive secretary for the Northern California Turfgrass Council. She was also the national executive secretary for the American Society of Irrigation Consultants. She has been the the CLCA state treasurer for Grass Widows.

NO RUNS, NO LEAKS, NO STREAKS

Standard Golf presents a clean case.

Standard Golf has the ball washer that not only looks good on your tee, but is designed to STAY looking good through years of use.

Our Ball Washer has an overflow tube to drain away excess ball washer fluid. The tube keeps the fluid level below the crank shaft opening to prevent leaking and soap deposit build-up on the case exterior. The case stays cleaner and looking newer longer.

Plus, the Professional Series Ball Washer is easy to drain for cleaning and maintenance. The plug design has larger stops in combination with molded ears on the case which prevents over-tightening and leaking.

Golfers can wash up to four balls at one time, and the soapy water stays inside the case where it belongs, not on their clothes.

There are several colors to choose from as well as three different styles of stands.

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Easy crank action.

Tough nylon bristle brushes provide exceptional cleaning.

Holds up to four balls at a time

Molded "nub" keeps lid closed while not in use.

Tough resilient case looks good year after year.

Overflow tube prevents overfilling and keeps fluid level below the crank shaft. This eliminates leaking and streaking. It cannot be overfilled even accidentally by rain or irrigation systems.

The molded ears on the case and the larger stops on the improved drain plug eliminate the possibility of over-tightening. It won't leak.



Lofts opens Ohio branch

Lofts Seed Inc. has formed a new branch in Wilmington, Ohio.

Lofts/Ohio will market seed for spring, with shipments starting in late December to Ohio, areas of Indiana, Kentucky, West Virginia and Michigan. A complete line of Lofts' turfgrasses, wildflowers, lawn fertilizer and farm products (forage grasses and legumes) will be stocked.

The branch will be managed by David Goodwin, who most recently managed DeWine Seed Co. in Ohio.

Kohler adds distributor

Kohler Co.'s Engine Division has added Power Systems as a central distributor for Kohler engine products in Idaho, Utah, northeastern Nevada and southwestern Wyoming.

Power Systems serves lawn and garden, construction and industrial industries as a supplier of four-cycle, air-cooled gasoline engines.

Power Systems will supply the full line of Kohler engines, parts and accessories, and service.

Bob Barnhart is the sales manager for Power Systems' Engine Division. The firm has offices at 4499 Market St., Boise, Idaho; and 540 W. 3615 S., Salt Lake City, Utah.

OSU

Continued from page 31
grubs never did move into the zone where the pesticide is.

"Grubs are usually at the thatch-soil interface when there's thatch there. That can be 1/2 inch, one inch, it depends... If there is no thatch there, then you would want to apply it 1 inch, 2 inches at most, beneath the surface."

The entomologist said the research proved that with the Rain

Continued on page 33



Boring guide released by Ditch Witch

A concise guide to the applications and advantages of the many types of underground boring equipment available today has been published by Ditch Witch.

The 16-page, illustrated Ditch Witch Trenchless Technology Applications Guide gives an objective look at extended-range guided boring systems, rod pushers, impact muling tools, augers and fluid-assisted boring systems.

These boring systems are explained and their advantages and disadvantages compared with other trenchless technologies.

The guide is available by contacting The Charles Machine Works, Inc., P.O. Box 66, Perry, Okla. 73077 or calling (800) 654-6481. Circle No 252

OSU

Continued from page 32

Saver the chemicals can be place exactly where they will be most effective.

"We placed it too deep this year but with some modifications we can put it exactly where we want it," Niemczyk said.

He said his research is not contractually tied to Rain Saver and that he has also spoken with Cushman-Ryan and Olathe representatives.

"Anybody who can design a piece of equipment to accomplish this objective — placing materials beneath the surface and leaving little or nothing on the surface — I'm interested in talking to," he said.

The Rain Saver equipment was designed for polymers, and the company loaned the Ohio State researchers a piece of equipment for their project.

Niemczyk said he has been working with Cushman-Ryan on an overseeder "to see how well we can subsurface place granular materials. There are some shortcomings in regard to placing the material that now we've talked with Cushman-Ryan about and if they are interested they may want to modify their equipment."

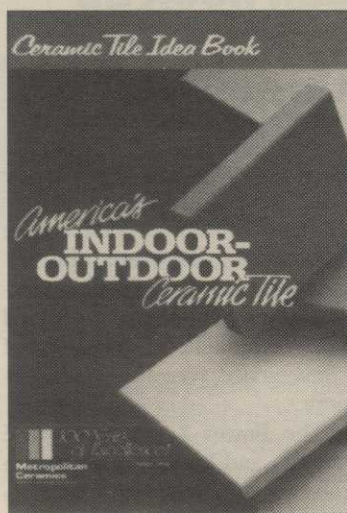
"I'm a biologist (not manufacturer). If someone comes along with a piece of equipment they think may do the job, I'm willing to test it," he added. "And until I have someone else's equipment I'm going to use the equipment I have now."

Metropolitan prints idea book

The new eight-page, full-color "Ceramic Tile Idea Book" from Metropolitan Ceramics details the design versatility of indoor/outdoor ceramic tile.

The literature is complete with residential and commercial tile installation photos, pattern ideas, color swatches, performance specifications, special trim shapes, a copy of the company's warranty installation and maintenance recommendations, and a sample architectural specification.

Form more information contact Metropolitan Ceramics, P.O. Box 9240, Canton, Ohio 44711; 216-484-4876. Circle No 253



NEW LITERATURE

'Make Money Mowing Grass' book enters third printing

The third edition of the handbook "How To Earn at Least \$60 Per Hour Mowing Grass . . . And Still Be the Low Bidder" was printed in December.

Author Roy H. Ruebenstahl Jr. has been a mowing contractor for 15 years.

His 193-page booklet contains information on how to run a more

profitable business by eliminating the peaks and valleys in hourly profits and avoiding pricing a job too low.

The postage paid price is \$29.95 and can be paid by check or money order sent to GOMC, 10490 Bluegrass Parkway, Louisville, Ky. 40299.

Circle No 251

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For free information circle #137

NEW PRODUCTS

Jacobsen 168D all-hydraulic

Jacobsen's Tri-King 168D diesel triplex is a compact, all-hydraulic 84-inch trimming mower. The 1684D has hydraulically driven reels for cutting golf course tree, collars, or other trimming. Responsive steering and a foot-operated reel lift make cross-cutting fairways easy, for attractive striping. The wide cut improves productivity, and makes trimming arounds traps easier.

Jacobsen says the 16.5 hp liquid-cooled diesel engine gives longer service life, improved fuel efficiency, and less maintenance than gas-powered engines.

The Tri-King's hydraulically powered reels eliminate potential belt-slippage problems from mowing under heavy load or in wet conditions. The 1684D also has hydraulic traction drive for better control over mowing seed and maneuverability.

Optional three-wheel drive gives superior traction for mowing on slopes or in wet grass.

The Tri-King 1684D can be custom-tailored for a variety of applications. Reels can be set for fixed or floating operation, at cutting heights from 3/8" to 2-3/4". Both 10-blade and 5-blade reels are available.

Contact the Marketing Department, Jacobsen Division of Textron Inc., 1721 Packard Ave., Racine, WIS 53403. **Circle No 301**

Flexalon's aeration system restores lakes, ponds

Environmental consultant Flexalon is selling an activated oxygen and aeration system it says permanently restores lake and pond water quality, offering "an ecologically sound alternative to repeated chemical treatments."

The system solves two major problems of eutrophic waters: high suspended nutrient levels and low dissolved oxygen levels.

The activated oxygen is a powerful oxidizing agent that clears water of suspended solids and removes harmful chemicals. Aeration raises dissolved oxygen levels, promoting healthy, aerobic decomposition; this ties up nutrients in bottom sediments, preventing algae blooms.

The activated oxygen and aeration are injected at the lake bottom using standard lead-weighted aeration lines, which overcomes stratification and stagnation by circulating and mixing waters.

Flexalon says it has successfully installed systems at a 326-acre lake and at a golf course with three lakes from 1 2/3 to 4 1/2 acres.

Contact Gary Nichols, president, Flexalon, Inc., 1009 Morro, Suite 202, San Luis Obispo, Calif. 93401; 805-541-2206. **Circle No 327**

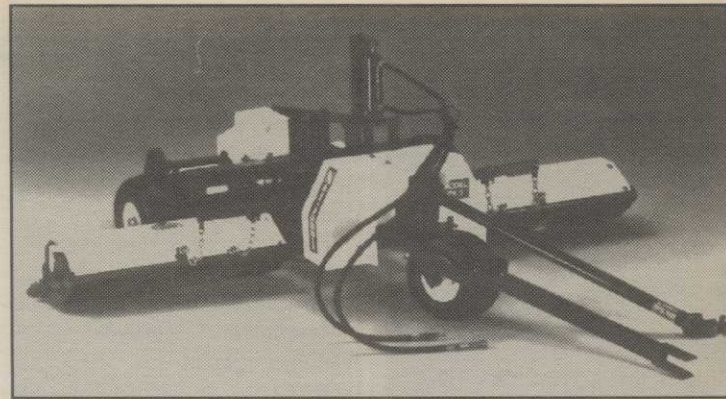


Jacobsen's Tri-King 168D

Little tractors can hook up to Nat'l Mower three-gang

National Mower presents a three gang reel mower suited to operation with tractors with as little as 15 PTO hp. the Power 3 PTO gang mower features the same high efficiency drive and other design features found on larger National Mower models, affording great convenience, versatility and economy.

The Power 3 cuts a full 84" swath, and hydraulic lifts make the Power 3 maneuverable in even tighter spaces. With no outrigger



National Mower's three-gang reel

wheels, cutting units extend out over curbs, sand traps and other obstructions to minimize trimming.

A key feature of the Power 3 allows quick change of cutting reels

to verticutting blades so the unit can be used as a turf conditioner as well as a groomer.

Contact your nearest dealer, or call the factory at 612/646-4079. **Circle No 348**

Welcome to the land of eagles, elk, bear and Deere

Spotting a Deere seems only fitting at Oregon's Sunriver Resort. Because here, where wildlife abound, the resort has gained a national reputation for making people feel more like a part of nature than intruders upon it—even on the golf course.

Nine years ago, Robert Trent Jones Jr. brought Sunriver's natural beauty and golfers together at the North Course. Today, superintendent Bruce Toepel and assistant Tom Krpicak make sure that same ground stays beautiful every day.

"I helped build this course," says Toepel, "so I take personal pride in trying to improve it each year. In fact, improving the appearance and playability of the course was our top priority a year ago when we decided to buy our first John Deere 3325 Professional Turf Mower.

"The 3325's cut, speed, maneuverability, operator comfort and single-lever lift for cross-cutting impressed us then. Since then, our first 3325 has done such a beautiful job on our fairways that we decided to get another one."

"It's so precise," adds Krpicak, "that it feels like a giant greens mower. It's so easy to operate and mows in such straight lines that all you have to do is concentrate on what's out ahead of you. And, as far as service access, there's no other mower that even comes close."

Talk to your John Deere distributor today for more information on all we have to offer. Or write John Deere, Dept. 956, Moline, IL for free literature. We know, like Bruce Toepel and Tom Krpicak, you're going to like what you see.



Two John Deere 3325s help Bruce Toepel (right) and Tom Krpicak maintain the quality conditions it took for Golf Digest to rank the North Course at Sunriver, Oregon, as one of the top 25 resort courses in the country.*

*October 1988 issue



Nothing Runs Like a Deere®

For free information circle #138



Mete-R-Matic top dresser fits trucksters

Due to many requests for a fast on/off top dresser for off road utility vehicles, Turfco's Mete-R-Matic is now available.

The Mete-R-Matic model F16 top-dresser fits E-Z-GO, Cushman, Smithco and other turf trucksters, using the quick pin hook-up for accessories.

The model F16 Mete-R-Matic uses a 3HP I/C engine to power the conveyor belt and revolving brush which saves installation time over a PTO hook-up. An easy to reach throttle control can change the conveyor speed to give even



Turfco's Mete-R-Matic

spreading to top-dressing varying in moisture content. The metering gate control is also in easy reach while in operation.

The F16 uses the same 11.5 cu. ft. hopper and an endless composi-

tion conveyor belt as the self-propelled Mete-R-Matic Top-Dresser.

Contact Turfco Mfg., Inc., 3456 N. Washington Ave., Minneapolis, Minn. 55412; 612-588-0741. **Circle No 346**

Fox Valley striping varied

Fox Valley Systems, Inc. is offering a variety of new and/or improved striping and marking equipment.

The new versatile superstriper package contains the superstriper, cast metal chalkline, 18-ounce can of aerosol paint, two can holders and a large guide arrow.

Parking lots and athletic fields are among site uses.

The Easy Striper has new slide-action adjustment. Just drop in a can of aerosol paint, press the trigger and spray crisp, straight and long-lasting stripes. Colors may be changed instantly.

Trig-A-Cap has a spray trigger for upside-down use when mark-

ing, and a new belt box. The trigger cap will prevent accidental discharge and may be carried safely to and from the job site.

The Easy Marker marking paint and marking chalk is considered ideal for defining golf courses, newly seeded areas, traffic control, etc.

Many course superintendents are using Easy Marker instead of lime for marking ball drops and grounds-under-repair areas. The paint is not injurious to grass, so may be used while reshaping greens and sand traps.

Contact Fox Valley Systems, Inc. 640 Industrial Drive, Dept. 422C, Cary, Ill. 60013-1948 (800) 323-4770. **Circle No 261**



Olathe Plug Pulverizer

Olathe unit crumbles plugs

Pulverize Plugs Quickly and Efficiently After Aeration!

The Model 56 Plug Pulverizer out-front attachment for the Toro Groundsmaster 300 series helps pulverize and top dress after aeration. Features include PTO powered, 70 rubber fingers, 34 blades and 5 ft. swath. Only rubber fingers will come in contact with the ground, not destructive steel hammer blades common to other grinders. The plugs are lifted off the turf and battered against the frame before passing by stationary cutters and through a screen to pulverize in one pass. The out-front location processes the plugs before the operating implement runs over them.

Contact Olathe Manufacturing, Inc., 100 Industrial Parkway, Industrial Airport, Ks. 66031; 913-782-4396. **Circle No 345**

Lesco adds rotary mower

A 52-inch zero-turning-radius mower is the latest addition to Lesco's line of commercial rotaries.

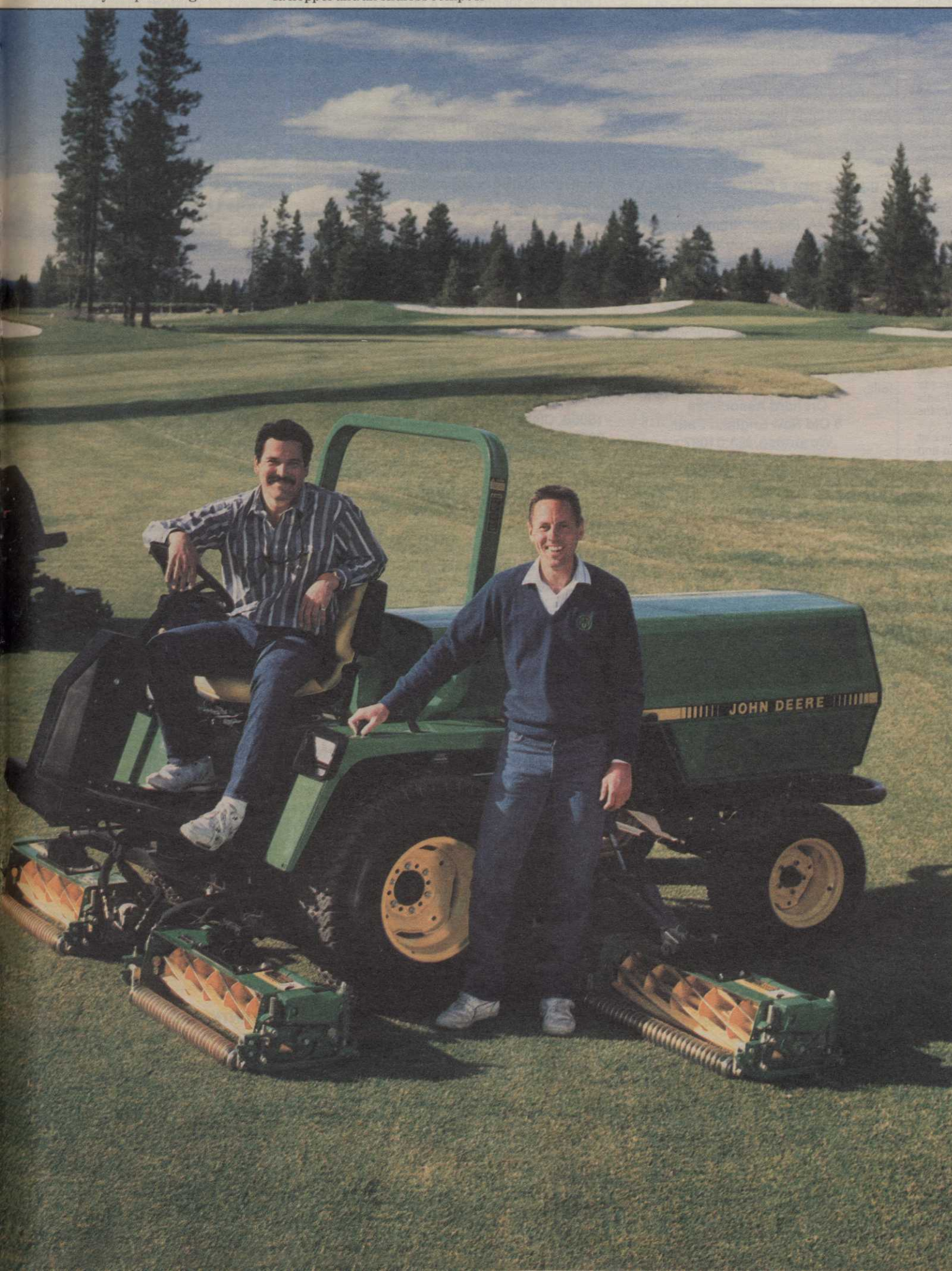
Engineered for endurance, the Commercial-52 features an exclusive dual-articulating deck that gives the machine outstanding traction.

It also features hydraulic pumps and wheel motors instead of hydrostats, which can be difficult to repair and expensive to replace.

The Commercial-52 offers the option of side discharge when clippings are not collected or rear discharge into two 30-gallon baskets. The rear discharges gives the mower excellent maneuverability in tight areas.

A 20-horsepower Kohler Magnum engine powers the machine.

Contact Lesco, Inc., 20005 Lake Road, Rocky River, Ohio 44116; 216-333-9250. **Circle No 252**



Calendar

January

7-8 — GCSAA seminar on Basic Principles of Turfgrass Management at Nashville, Tenn. *

8-10 — The Maryland Turfgrass Council's Turfgrass '90, a trade show with educational programs, will be held at Festivale Hall. Programs are planned for golf course, lawn care, grounds management, seeding and sod professionals. Contact Diana Patton, Turf Center, Inc., 1409 Spencerville Road, Spencerville, Md. 20868; 301-384-6300.

8-10 — Tennessee Turfgrass Association Conference and Show in Nashville, Tenn. Call 615-242-4600.

8-12 (and 15-19) — Cornell Cooperative Extension 5th Annual Turfgrass Management Short Course, sponsored by Cornell Cooperative Extension in cooperation with the Department of Floriculture and Ornamental Horticulture and the New York State Turfgrass Association. Contact Sharon Green at 20 Plant Science Building, Cornell University, Ithaca, N.Y. 14853.

8-12 — Virginia Professional Horticultural Conference at Virginia Beach, Va. Call 804-465-7777.

9 — Landscape & Nursery Expo '90 at Sacramento, Calif. Call 916-689-3659.

9-10 — Wisconsin Turfgrass Association Winter Conference at Country Inn in Pewaukee, Wisc. Contact Ed Devinger, Reinders Brothers, P.O. Box 825, Elm Grove, Wis. 53122; 414-786-3301.

9-12 — The Eastern Regional Nurserymen's Association Show at The Concord Hotel in Kiamasha Lake, N.Y.

9-14 — Golf Course Association's 8th Annual Conference at Wyndham Hotel in Palm Springs, Calif., with the theme: "Your Golf Environment." Contact GCA, 8030 Cedar Ave., Suite 228, Minneapolis, Minn. 55425; 612-854-8482.

10 — GCSAA seminar on Safe Pesticide Management at Raleigh, N.C. *

10-11 — GCSAA seminar on Golf Course Construction Techniques and Management at St. Charles, Ill. *

10-12 — The Eastern Pennsylvania Turf Conference and Trade Show at Valley Forge Convention Center in King of Prussia. Contact Thomas Watschke at the Department of Agronomy, 405 Agricultural Administration Building, University Park, Pa. 16802 (814-863-1613) or Pennsylvania Turfgrass Council, P.O. Box 417, Bellefonte, Pa. 16823 (814-355-8010).

11-12 — New Hampshire Turf Conference at the Center of New Hampshire Holiday Inn and Convention Center in Manchester, N.H. Contact the Department of Plant Biology, Nesmith Hall, University of New Hampshire, Durham, N.H. 03824-3597.

14-16 — New York State Arborists Association's 1990 Empire State Tree Conference in Rochester. Call NYSAA at 518-783-1322.

14-17 — Landscape Magic '90 at Lake Buena Vista, Fla. Contact Walt Disney World at 407-363-6620.

14-18 — Seventh Annual National Institute of Golf Management at Oglebay Park Resort and Conference Center in Wheeling, W.Va., sponsored by the National Golf Foundation and the center's Department of Continuing Education. Contact the NGF's Golf Course Development Department at 1150 U.S. Highway One, Jupiter, Fla. 33477, 407-744-6006, or National Institute of Golf Management, Wheeling Park Commission, Oglebay, Wheeling, W.Va. 26003, 800-624-6988, ext. 278.

15 — GCSAA seminar on Employee Training at Richmond, Va. *

15-18 — An Integrated Pest Management short course at the University of Maryland in College Park, Md., will include training in pest management for weeds, diseases and insects. Contact Lee Hellman at the Department of Entomology, University of Maryland; 301-454-7130.

15-19 (and 8-12) — Cornell Cooperative Extension 5th Annual Turfgrass Management Short Course, sponsored by Cornell Cooperative Extension in cooperation with the Department of Floriculture and Ornamental Horticulture and the New York State Turfgrass Association. Contact Sharon Green at 20 Plant Science Building, Cornell University, Ithaca, N.Y. 14853.

17-18 — GCSAA seminar on Landscape Plant Materials at Wichita, Kansas. *

19-21 — Mid-Am Trade Show held at Chicago, Ill., for grounds maintenance and landscaping professionals and nurserymen. Contact Donn Sanford, managing director, 1000 North Rand Road, Suite 214, Wauconda, Ill. 60084; 312-526-2010.

19-21 — Sports Turf Managers Association Conference and Show in Houston, Texas, with educational sessions and exhibits. The theme will be "Sports Turf: Heart of America for the 1990s." Contact the STMA, P.O. Box 94857, Las Vegas, Nev. 89193-4857.

23 — GCSAA seminar on Negotiating at Cincinnati, Ohio. *

23-25 — Massachusetts Horticulture Congress and Turf Show at the Royal Plaza in Marlborough.

Continued on page 37

Golf Course Marketplace

To reserve space in this section, call Simone Lewis, 813-576-7077

REAL ESTATE

ACREAGE FOR SALE

700 acre plantation south of Charleston, SC. Located across the marsh from Kiawah Island. Home of the 1991 Ryder Cup. Golf course concept plan already laid out on 700 acres by Clyde Johnston. Owner will sell all 700 acres or 150 acre golf course pad for \$5,000/acre. Owner financing available. Last large tract on Johns Island.

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EMPLOYMENT

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Golf course constr. mgr./post production superintendent w/BS degree in Agronomy from Texas A&M Univ., 12 yrs. turfgrass specialist exp. & 6 yrs. as golf course super., seeks golf course constr. &/or post production super. pos. For resume, write or call Earl F. Arto, Rt. 5, Box 532, Houston, TX 77044. (713) 456-0773.

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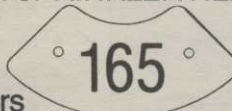
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24 — The Fourth Annual Inland Northwest Turf and Landscape Trade Show at Spokane (Wash.) Convention Center. Contact Jones and Associates, Park Street, Suite 200, N. 908 Howard St., Spokane, Wash. 99201-2261; 509-327-5904.

24 — GCSAA seminar on Employee Training at Cincinnati, Ohio. *

24-25 — California Irrigation Institute meeting in Bakersfield, Calif. Call 916-485-6101.

24-26 — European Turf Management Exposition, an "equivalent to the U.S. and Canadian golf superintendents' events," sponsored by the British and International Golf Greenkeepers Association, at Harrogate Exhibition Centre, North Yorkshire, England. Contact George A. Wright Business Services Ltd., 18 West Hill Place, Brighton, BN1 3RU, Sussex, England; 0273-26513.

25-26 — Golf Course Development conference, coordinated by the Institute for International Research, Inc., at the Grand Cypress Hyatt in Orlando, Fla. Contact Conference Administrator, Institute for International Research, 331 Madison Ave., 6th Floor, N.Y., N.Y. 10017; 212-883-1770.

25-26 — GCSAA seminar on Plant Nutrition and Fertilizers at Portland, Maine. *

27-30 — PGA Merchandise Show at Orange County Convention/Civic Center in Orlando, Fla. Contact PGA Show Department, 100 Avenue of the Champions, Palm Beach Gardens, Fla.; 407-624-8400.

28 — National Golf Car Manufacturers Association annual meeting at 10:30 a.m. in the Peabody Hotel in Orlando, Fla. Contact the association office at P.O. Box 31868, Palm Beach Gardens, Fla.; 407-694-2977.

29-30 — Club Managers Association of America annual conference in Orlando, Fla. Contact CMAA at 1733 King St., Alexandria, Va. 22314; 703-739-9500.

30 — A day-long seminar on Improving Surface Irrigation Efficiency, sponsored by the Center for Irrigation Technology, California Agricultural Technology Institute and the Irrigation Association, will be held at the Ramada Inn in Fresno, Calif. Call 209-294-4869.

February

6-8 — South Carolina Landscape & Turfgrass Association's 14th annual Grounds Maintenance Conference and Trade Show at the Sheraton Charleston Hotel. Held in cooperation with Clemson University, the conference is designed for the green industry, especially businesses and educational institutions involved in lawn care application and maintenance, turfgrass management, landscape design and implementation, maintenance of ornamental gardens for public use and recreation, and nurserymen. Contact SCLTA at P.O. Box 325, Clemson, S.C. 29633.

14-16 — The American Sod Producers Association's Midwinter Conference and Exposition at The Hilton at Walt Disney World Village in Orlando, Fla. Contact Sharon Topel, meetings administrator, ASPA, 1855 Hicks Road, Rolling Meadows, Ill. 60008; 312-705-9898.

15 — Connecticut Turf and Landscape Conference at the Hartford Civic Center. Contact the Connecticut Grounds Keepers Association, Inc., P.O. Box 876, Bethel, Conn. 06301; 203-791-8615.

21-22 — Crittenden Golf Real Estate Development Conference in Palm Springs, Calif. Contact Crittenden at P.O. Box 1150, Novato, Calif. 94948; 415-382-2486.

19-26 — 61st International Golf Course Convention and Show, sponsored by the GCSAA at Orange County Convention/Civic Center in Orlando, Fla. *

28 — New Jersey Landscape 1990, hosted by the Bergen County Landscape Contractors Association, will be held at The Stadium Club at Giants Stadium in East Rutherford, N.J. More than 80 exhibitors will be present and guest speakers and educational seminars are planned. Contact Skip Powers at 201-664-5228 or Jim Stewart at 201-327-0820.

March

6-7 — GCSAA seminar on Landscape Plant Materials at Lafayette Hill, Pa. *

15-16 — GCSAA seminar on Insect Pests on Trees and Shrubs at Cromwell, Conn. *

19-20 — GCSAA seminar on Business Communication and Assertiveness Techniques at Minneapolis, Minn. *

25-29 — American Society of Golf Course Architects' 44th annual meeting at the Inn at Spanish Bay in Pebble Beach, Calif. Contact the society at 221 North La Salle St., Chicago, Ill. 60601; 312-372-7090.

April

16 — GCSAA seminar on Calculations and Practical Mathematics in Golf Course Management at Renton, Wash. *

18-19 — Crittenden Golf Real Estate Development Conference in Orlando, Fla. Contact Crittenden at P.O. Box 1150, Novato, Calif. 94948; 415-382-2486.

24-25 — Crittenden Golf Real Estate Development Conference in Washington, D.C. Contact Crittenden at P.O. Box 1150, Novato, Calif. 94948; 415-382-2486.

* — For more information or to register, call the Golf Course Superintendents Association of America at 800-472-7878 or 913-841-2240. The seminars are dependent upon the availability of the instructors, and are therefore subject to change.

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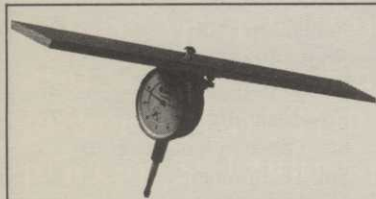
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For free information circle #161

Bardmoor greens staff beats ill-timed attack

BY PETER BLAIS

It was a small thing, but the type of thing that can cost a superintendent his job.

The Saturday before the J.C. Penney Classic (Nov. 30- Dec. 3) at Bardmoor Country Club in Largo, Fla., an assistant superintendent noticed a four-foot strip of browning grass on the fringe of the 11th green just before he headed home for the night.

Recognizing it immediately as pythium blight, assistant superintendent Steve Hritsko hustled back to the maintenance shed and returned with a treatment of Subdue (a fungicide).

The blight was contained, as was the embarrassment that could have resulted from a national television audience viewing the private course's green damage.

"We're lucky he just happened to notice it when he did," said head superintendent Frank Cook. "You can lose an entire green overnight to pythium. And it's easy to transfer from green to green. The spores attach themselves to a mower's wheels. You can lose all your greens in a couple of days."

Pythium is generally a problem seen on ryegrass courses in the North rather than the bermudagrass courses in the South. But a combination of circumstances set the stage for a near disaster at Bardmoor.

Ryegrass normally isn't seeded into Southern courses until early December. But it was done in mid-October, six weeks before the tournament at Bardmoor, to fill in a few heat-stressed greens for players and television cameras.

Fog and warm weather, typical midsummer conditions that combine to spawn pythium outbreaks in the North, led to the same

Do you have any interesting or innovative solutions to problems, or something else special that you would like to share. Share it with us and we'll pay \$50 to print it. Write: *Golf Course News*, P.O. Box 997, Yarmouth, ME 04096.



Bardmoor Country Club Superintendent Frank Cook, left, checks an area of the 11th green infected by pythium blight just before last month's J.C. Penney Classic. Cook and assistants Steve Hritsko, center, and Pat Hansen corrected the problem before it had a chance to spread and disrupt play during the nationally-televised event.

result at Bardmoor.

Thanks to Hritsko's quick action, an embarrassing situation was averted. But there was no way of avoiding the problems that plagued the Largo course the year before, when a tropical storm downed 100 trees a week before the Classic.

"That was a horror story," remembered Cook. "We couldn't mow the fairways for five or six days. And when we finally did, we scalped some of the grass. Compared to last year, this was nothing."

The only other potentially serious problem Cook faced prior to this year's J.C. Penney tourney was a computer foul-up the week before that caused an irrigation sprinkler on the 15th green to stay on an extra 12 hours. Coupled with some heavy rains, the green absorbed a lot of water.

"It was a little messy," recalled Cook. "It

was soft all through the tournament. Saturday night (after the second round) was the first night we didn't need to use a roller to smooth it out. Unfortunately, it happened the day before we would have shut down the irrigation system and started hand-watering."

Last year's tropical storm a week before a major tournament was a tough way for Cook to begin his first year as head superintendent. The 43-year-old groundskeeper started as a laborer at Bardmoor in 1981 after a long career in the lawn care business.

"I was looking for a change," he said. "A friend of mine suggested I come out here when a job opened up. I got to know this business from the bottom up, eventually moving up to assistant foreman, foreman and assistant superintendent. When the head superintendent was offered the general

manager's job, I was offered the head job. I became the superintendent in January 1988."

Unfortunately for Cook, his second J.C. Penney Classic as superintendent will likely be his last. The mixed pairs tournament is moving to nearby Innisbrook GC in Tarpon Springs in 1990, bringing to an end a 12-year association with Bardmoor.

The change of venue has nothing to do with the Bardmoor course itself, explained Cook. The private course was simply unable to provide the on-site accommodations and banquet facilities available at a resort complex like Innisbrook.

"I'm sorry to see it go," said Cook. "It's a lot of work and there's a lot of nervousness. But it's worth it. It's kind of nice to see your course on national TV."

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