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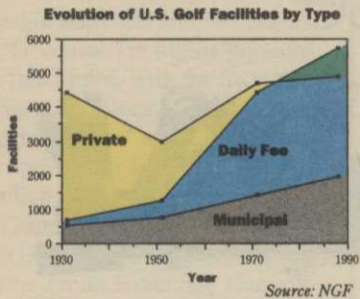
# GOLF COURSE NEWS

THE NEWSPAPER OF THE GOLF COURSE INDUSTRY

VOLUME 1 NUMBER 10  
DECEMBER 1989

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staff maintains course integrity
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growing in popularity
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## Bay area courses recovering



The Oct. 17 earthquake dropped DeLaveaga Golf Course's 18th green and collar eight inches along a 50-foot, four-inch crack.  
Photo by Campbell Turner

### Irrigation systems, greens major victims of quake

BY MARK LESLIE

In the aftermath of an earthquake that turned some San Francisco area communities upside down, Northern California golf course superintendents braced for the predicted next trembler and worked to get their courses back in shape.

While the nation's eyes focused on the deadly tragedy at the Bay Bridge, nearer the epicenter 50 miles to the southeast, Santa Cruz's downtown was leveled and some people's lives permanently changed. Lost in the tumult of more important matters was the Oct. 17 earthquake's effect on the region's golf courses.

The major problems at the courses were damage to clubhouses and other structures, breaks in irrigation systems, cracks on

Continued on page 28

## A 95-day miracle

### And he could have done it faster, says developer

BY MARK LESLIE

Construction of a "quality" golf course in 95 working days at a Cenvill Development Corp. real-estate project in Illinois has drawn astonishment in the golf industry.

"That's absolutely fantastic," said Golf Course Builders of America Executive Di-

rector Don Rossi. "If it's a quality golf course that's a tremendous effort."

Rossi stressed that he's not impressed with speed unless the work is high-quality, and the principals involved insist the Carillon development's golf course in Plainfield, Ill., is top-notch.

Cenvill Director of Golf Dan Jones declared, "This is no rinky-dink course. It's an excellent product."

Steve Balogh of Kenova Construction in West Palm Beach, Fla., who coordinated

Continued on page 26

## Builders mark PGA for honors

BY PETER BLAIS

The Golf Course Builders of America will honor the Professional Golfers Association Tour at the builders' association annual meeting Feb. 24 in Orlando, Fla., for the PGA's work in building Tournament Players Club courses.

"The PGA Tour has done an out-

Continued on page 23

## Flymo makes triumphant return to U.S.

BY PETER BLAIS

Largely banished from U.S. golf courses in the mid-1980s, the Flymo mower is making a triumphant return heading into the 1990s, thanks to a safety device developed by a Florida distributor.

The Flymo, a walk-behind mower that rides on a cushion of air, has long been one of the most popular means of grooming around bunkers. But injuries have often occurred because of severe conditions and operator carelessness, according to Precision Small Engine Co. owner Andy Masciarella, one of Flymo's major U.S. distributors.

"People would slip while working along a

Continued on page 24



The view north from the tee of the par-3 8th hole at Washington Green Spring Golf Course in Washington, Utah, shows the contrast between red desert sandstone and golf turf that enhances a breathtaking view.



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# Campbell, Corbin get Graffis awards

## USGA official, teacher cited for contributions

The National Golf Foundation's highest honors—the Herb Graffis and Joe Graffis awards — have been presented to former USGA President William C. Campbell and LPGA teaching professional Kathy Corbin, respectively.

The awards were named for brothers who founded the NGF. The Herb Graffis Award recognizes "long-time and outstanding contribution to preserving the true spirit of the game, and specifically for keeping golf as it was meant to be: for recreation, good fellowship and health."

The Joe Graffis Award honors "outstanding service and dedication to the educational advancement of golf."

Campbell has been involved in amateur golf for half a century. In 1956 he received the USGA's highest honor, the Bob Jones Award, for distinguished sportsmanship in golf. In 1983, the Golf Writers' Association of America gave him the William Richardson Award for outstanding contributions to golf.

"Of course I'm highly honored by this award, both for its stated criteria and because of its previous recipients," said Campbell in a recent letter to NGF Chief Executive Officer Dr. Joe Betiz.

Campbell was president of the USGA in 1982-83 and served two terms on its Executive Committee. He was captain of the Royal and Ancient Golf Club in St. Andrews, Scotland, from September 1987 to September 1988 — only the third American accorded this honor.

The winner of 30 amateur golf titles including the 1964 U.S. Amateur Championship, he is a popular speaker on the history and traditions of golf. He is currently running his insurance company in Huntington, W.Va.

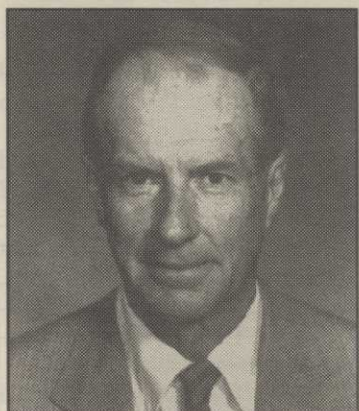
Corbin has worked extensively teaching the physically challenged at Palo Verde Golf Course in Arizona.

A world-class hurdler when she developed a rare disease of the kneecaps, she took the advice of her doctor and took up golf, winning a scholarship and earning a career as LPGA Teaching Division professional.

"I was devastated when I found out about my disease," remembered Corbin, who was told when diagnosed at age 17 that she would likely be in a wheelchair by 30. "I was a very active person. My goal was to be a world-class runner and go to the Olympics. Suddenly that wasn't possible."

"Now I can say my disease was one of the best things that ever happened to me. It got my life going. Finding out what people can and can't do makes every day a new learning process."

Her own use of golf as physical therapy gave Corbin the impetus to found the "Never Say Never"



*William Campbell*  
program in 1985 for paraplegics, amputees, stroke victims, the blind

and the deaf. Through her program, students receive individual instruction and equipment modified for their use.

In 1986 Corbin received the Phoenix Outstanding Rehabilitator/Teacher of the Year Award for her work with a 70-year-old stroke victim. At the time she began the program, Corbin's student was unable to use the left side of his body. Today, he not only takes a full swing but he plays a minimum of three rounds of golf a week.

"Letting someone see what it feels like to produce results on his own rather than depending on



*Kathy Corbin*  
someone else is a real thrill... I keep catching people saying, 'I'll

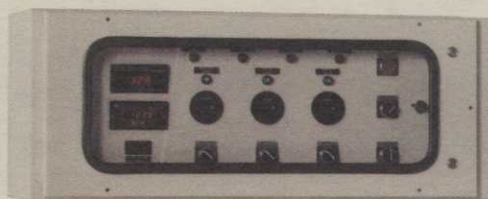
## NEWS

never do that.' But they prove themselves and me wrong over and over again. That's my reward."

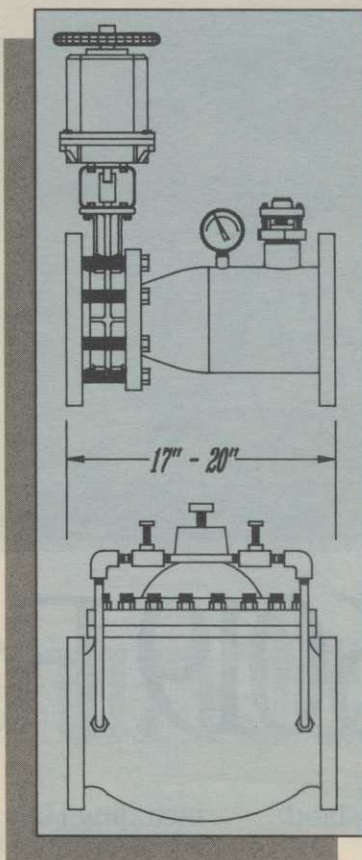
Corbin joined such Joe Graffis Award-winners as Patty Berg and Bob Toski, when she accepted her award Nov. 20 at the LPGA Awards Luncheon in New York.

Campbell joined the likes of Arnold Palmer and Jack Nicklaus when he received his award at an International Association of Golf Administrators meeting Dec. 3.

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# Verti-Cut firm in 'generic' battle

BY MARK LESLIE

What's in a name? To the original Verti-Cut mower manufacturers — Hahn Inc. of Evansville, Ind. — a lot. Without getting lawyers involved, Hahn is asking the other companies that are making and naming mowers Verti-Cut, Verticut or Verti-Kut to cease and desist.

Kent Hahn of Hahn said: "Verti-Cut has been a registered trademark of our company since the early '70s. It's a mowing machine with blades that cut vertically ... to thin out running-type turf, dethatch or prepare seed beds. Now Verti-Cut has seemed to become generic, and we don't want that to happen."

Hahn said he doesn't want to go to court to protect his rights. Rather, he said: "People in this industry are honest enough and good enough so that you don't have to get the law involved... Most of them don't know they're using a registered tradename; they think

Verti-Cut's generic... But we are going to protect our name."

Companies using that name include Brouwer Turf Equipment Limited and Ransomes, both of which make mowers called Verti-Cut; National Mower with its Verti-Kut; and Kubota with Verticut.

First on Hahn's list was Brouwer Turf Equipment Limited, a Ransomes subsidiary. Brouwer, which has manufactured Verti-Cut for nearly six years, responded by pulling all its Verti-Cut advertising and press releases and is in the midst of a new advertising cam-

**'If they don't police their trademark they'll lose it.'**

**— David Gould  
patent engineer**

paign using the generic Vertical Mower, said Advertising Supervisor Lawrence Cooper.

"It's a nuisance," Cooper said. "Fortunately, we were in the middle of changing the advertising anyway, since Ransomes bought Cushman and us from Outboard Ma-

rine Corp."

Hahn hasn't contacted National Mower Vice President John Kinkead.

Kinkead said his firm checked the Verti-Cut name when it named its unit Verti-Kut. But, he said: "Ours is basically a heavier unit than theirs. Ours are PTO units, much bigger, with a 11 1/2-foot-wide cut. Theirs are 18-inch walk-behind units."

Hahn had also not contacted Kubota or Ransomes about renaming their mowers.

But patent engineer David Gould

of Bangor, Maine, warns, "If they don't police their trademark they'll lose it. Look at thermos and aspirin. Their owners slept on their trademark rights and lost them."

Gould said a product violates trademark rights if it even sounds like the protected name. Protecting the trademark just involves writing a letter to the offending company asking it to stop using the name or to attribute it to the trademark holder, he said.

NEWS

## Park District takes over Golden Acres

The Schaumburg (Ill.) Park District has forcibly acquired the 205-acre Golden Acres Country Club from owners Curt and Phyllis Kotel.

Park officials maneuvered the \$15.5-million purchase largely because of proposed state legislation that would have given counties, rather than local park districts, first shot at condemning golf courses and therefore forcing their sale.

The purchase ensures Golden Acres will remain green space "forever," said park board President Marge A. Connelly.

Connelly said the district tried to negotiate with the Kotels to give Schaumburg Park District first dibs on the course, but the Kotels refused.

Park leaders are promising a variety of improvements at the course, which has been renamed Schaumburg Golf Club.

## 36-acre razed site faces transformation

G and R Contractors Inc., of Glenbeulah, Wis., plans to raze two buildings covering 36 acres in West Milwaukee and build a nine-hole golf course on the site.

The buildings of the former Babcock and Wilcox steel pipe and drilling equipment plant at S. 37th St. and W. Burnham Avenue have been condemned by the village.

McDermott International Inc., of New Orleans, the parent company of Babcock and Wilcox, will donate the site to an environmental group based in Washington, D.C. That group will then sell the property to G and R for \$750,000, according to a West Milwaukee spokesman.



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## NEWS

**Town approves \$1.7M clubhouse**

The municipal Winnetka (Ill.) Golf Course officials have won Village Council approval to build a new \$1.7-million clubhouse to replace an "inadequate" facility.

The construction will not be funded by property taxes but rather by golf user fees, \$300,000 in cash on hand and about \$1.4 million in bonds.

**Daiichi to upgrade Lakeover**

Daiichi America Real Estate Corp., which bought the former Lakeover Country Club in Bedford, N.Y., for \$24.9 million, plans to turn it into a world-class golf course by 1991.

Lakeover, now Whitfield Golf Course, became Daiichi's first golf course in the United States when it bought the property in mid-September from Whitfield Development Corp. of Norwalk, Conn.

"The immediate plan is to redesign and improve the golf course," said Douglas Danzig

of the Park Avenue law firm Marks, Murase & White, which represents Daiichi. "They're willing to spend as much as it takes to rebuild the course... It will be a world-class, top-notch golf course" by the spring of 1991."

It is the second sale of a northern Westchester property to a Japanese firm this year involving golf course plans. Mitsui Fudosan Inc., a Tokyo real-estate company, bought 239 acres from the Lincoln Hall school in Somers.

**McCumber, Goodkin form partnership**

McCumber Golf and Goodkin Research Corp. have formed McCumber/Goodkin Golf Group, focusing on public play and semi-private golf facility opportunities.

McCumber President and Chief Operating Officer James L. McCumber announced for joint venture between his firm and Goodkin, a real-estate research firm.

The new business will cater to all facets of the golf industry from feasibility analysis, design and construction, financing and invest-

ment to golf course management, club operations and course maintenance.

"It is our combination of skills, experience, knowledge and market presence," McCumber said, "that allows us to identify economically under-utilized existing courses or new developing opportunities, determine whether to construct a new golf facility or reposition an existing facility, and how to manage all phases of a facility's programs to ensure that economic return is optimized."

Goodkin Research Corp.'s sister corporation, Goodkin Real Estate Investment Services, Inc., assists in joint ventures, equity and debt financing and real-estate risk management.

**Tortoise endangers Utah project**

Designation of the desert tortoise as an endangered species has endangered plans for a golf course community in St. George, Utah.

Utah Bureau of Land Management officials have reported that the site for the project contains an average of 100 desert tortoises per square mile — "among the highest (densities) in the Mojave Desert."

Desert tortoises in Utah, Nevada, California and parts of Arizona were designated as endangered this year after biologists discovered many were dying from a respiratory disease.

Rocky Mountain Ventures of St. George wants to buy 2,400 acres of state-owned land between St. George and Washington for the 300-home resort community.

The emergency measure naming the tortoises endangered expires April 1 but U.S. Fish and Wildlife Service officials hope to provide permanent protection for the animals by that time.

**Town buys course to block developer**

With townspeople standing firmly behind them, Manheim (Pa.) Township commissioners have voted to buy Overlook Golf Course there for more than \$7 million, blocking a developer's plans to build 534 houses and apartments at the site.

The commissioners voted unanimously to condemn the 101-acre golf course, stopping the plans of Murry Development Corp. of Lancaster, Pa.

Now lawyers for the town and Murry will negotiate a deal for Murry to buy the golf course and develop the area in a way the town will agree to.

Supporters of the township's purchase feel that if the course is developed, the costs of a new school and road improvements will be more difficult to afford than buying the course now.

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# Safe holidays wished for all

My recent November travels took me once again to Southern California where I found the norm for that part of the country. . . beautiful weather, nice people, good business climate and, it seems, more cars than people. It took me 45 minutes to plod 20 blocks along Wilshire Blvd. one afternoon.

I did have the pleasure of visiting a magnificent new facility in the Westlake/Thousand Oaks area. Sherwood Country Club (so named because the area was the locale for the original Robin Hood

movie) has been carved out of mountains and caverns that are spectacular in this part of the country.

It took millions of dollars to develop this property *before* the first fairway was graded. David Murdoch and company have created a premier property. Many of the property's ancient oaks were transplanted to make way for the course, which is another Nicklaus sensation. I noticed many *huge* oaks that were wired for stabilization after being moved. Rushing creeks wind throughout the course creat-

ing monumental hazards for the average player. Murdoch and company have observed the new standard for golf course real estate development; that is, investing tens of millions of dollars in the course, clubhouse, etc. before building the first residence. I did not see a model residence or a sales office.

Superintendent Rick Wagner and his staff did a great job in preparing the course on short notice for the Ronald McDonald Children's Charities Tournament, which was played just prior to Thanksgiving. My short visit was

during the pro-am event on Wednesday to see architect Nicklaus play his latest masterpiece.

As *Golf Course News* winds up its first year of publication, I simply want to thank our readers and advertising clients for the overwhelming response to our new publication.

To you and all those who have contributed to our initial success, have a safe, peaceful and happy holiday season.

Sincerely,  
Charles E. von Brecht  
Publisher

## Artificial fertilizer use defended

BY GARY D. MYERS

Not too many years ago, there was an aura attached to those who worked the soil. They were viewed as the protectors of our nation's heritage, the heirs of the hardy people who built this country.

No more. Now, those who work the soil are considered the desecrators of our streams and waterways, making our water unsafe to drink. Any application of commercial fertilizer or pesticide is looked upon as favorably as a smoker in the hospital.

Many of the challenges we find facing agricultural applicators will also face lawn and garden applicators, particularly large users such as golf courses.

The largest challenge facing anyone who uses commercial nitrogen is the way groundwater concerns are being used to attack the commercial nitrogen industry. In agriculture, the result has been an emotional effort called LISA - low input sustainable agriculture. The main tenet of this approach is that leaching of nitrate into the groundwater supply can be prevented if we force farmers to use organic sources of nitrogen, such as manure, in place of

commercial nitrogen. Clearly, this approach is based upon an anti-commercial fertilizer bias rather than a scientific understanding of nitrogen, since organic nitrogen has at least as much potential for leaching as does commercial nitrogen.

Nevertheless, current legislative proposals call for implementation of national nutrient management programs aimed at reducing commercial fertilizer use up to 50 percent.

All nitrogen users will be challenged to be more efficient and environmentally aware in their application. For farmers, this means greater use of what we call Best Management Practices - production methods tailored to a farmer's needs and land as a way of preventing or reducing soil erosion and runoff and preventing nutrient losses. These practices include crop rotation, irrigation water management, precise timing and application of fertilizers, soil and tissue treating, manure management, and the use of grass waterways and vegetative buffer strips.

Farmers will be challenged in the future to use practices which also may be adaptable to golf courses, including soil and tissue testing, moni-

toring of nutrient levels, and better practices regarding the timing and methods of application.

While we all have to be more conscientious in the use of nitrogen, let's realize there is also a public relations battle to be fought. The use of fertilizer, whether on the farm or golf course, has provided mankind with a better quality of life. The benefits of fertilizer go largely unrecognized in the focus on the risks. So while we work to reduce the risks, we must also focus more attention on the tremendous benefits.

How does the use of fertilizer benefit the golf course industry? Here are a few ways that come to mind:

\* Recreation. It's an obvious point, but important in a society that places a high value on all forms of recreation. How many of your users understand the important role of fertilizer in the maintenance of their favorite form of recreation?

\* Air purification. Green leaves are natural air purifiers. They absorb carbon dioxide from the air and release oxygen, which is essential for all animal life. The vital oxygen supply is dwindling in major metropolitan areas, crowded out and used

## COMMENT

up by a growing population of people, internal combustion engines and other energy-consuming machines.

\* Noise abatement. Turf grasses and other green vegetation act as acoustical sound blocks to deflect, absorb and muffle undesirable street and community sounds.

\* Erosion protection. Grasses have long been recognized for their excellent soil-holding ability against the ravages of wind and water erosion. Soil lacking plant cover is easily washed from even the slightest slope to end up in streams and lakes as silt. Silt-filled streams, lakes and reservoirs destroy recreational uses, add to water pollution and create flooding problems. A healthy turf encourages rapid movement of rainwater into the soil as well as keeping good soil in place.

No one who uses commercial nitrogen has the luxury of shrinking from the public relations challenge that is at hand. Users must make sure their nitrogen application is environmentally sound, and then be willing to tell people the benefits of commercial fertilizer use.

Gary D. Myers is president of The Fertilizer Institute

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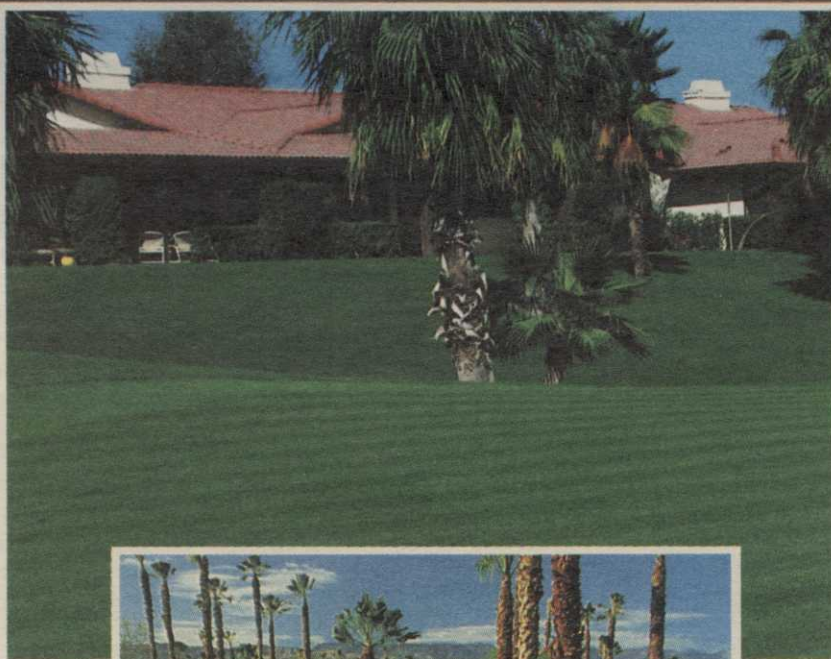
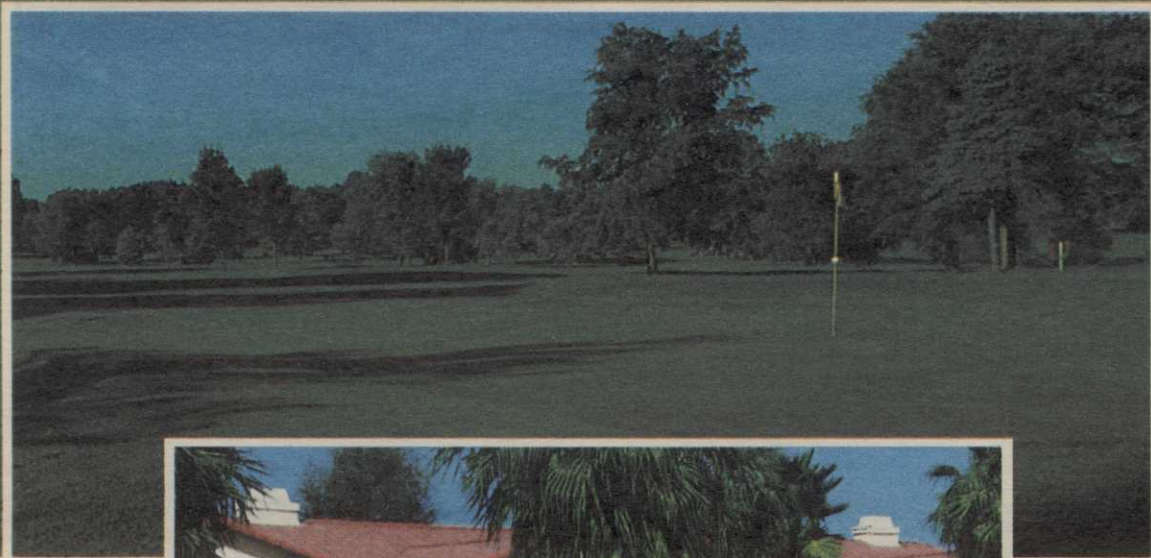
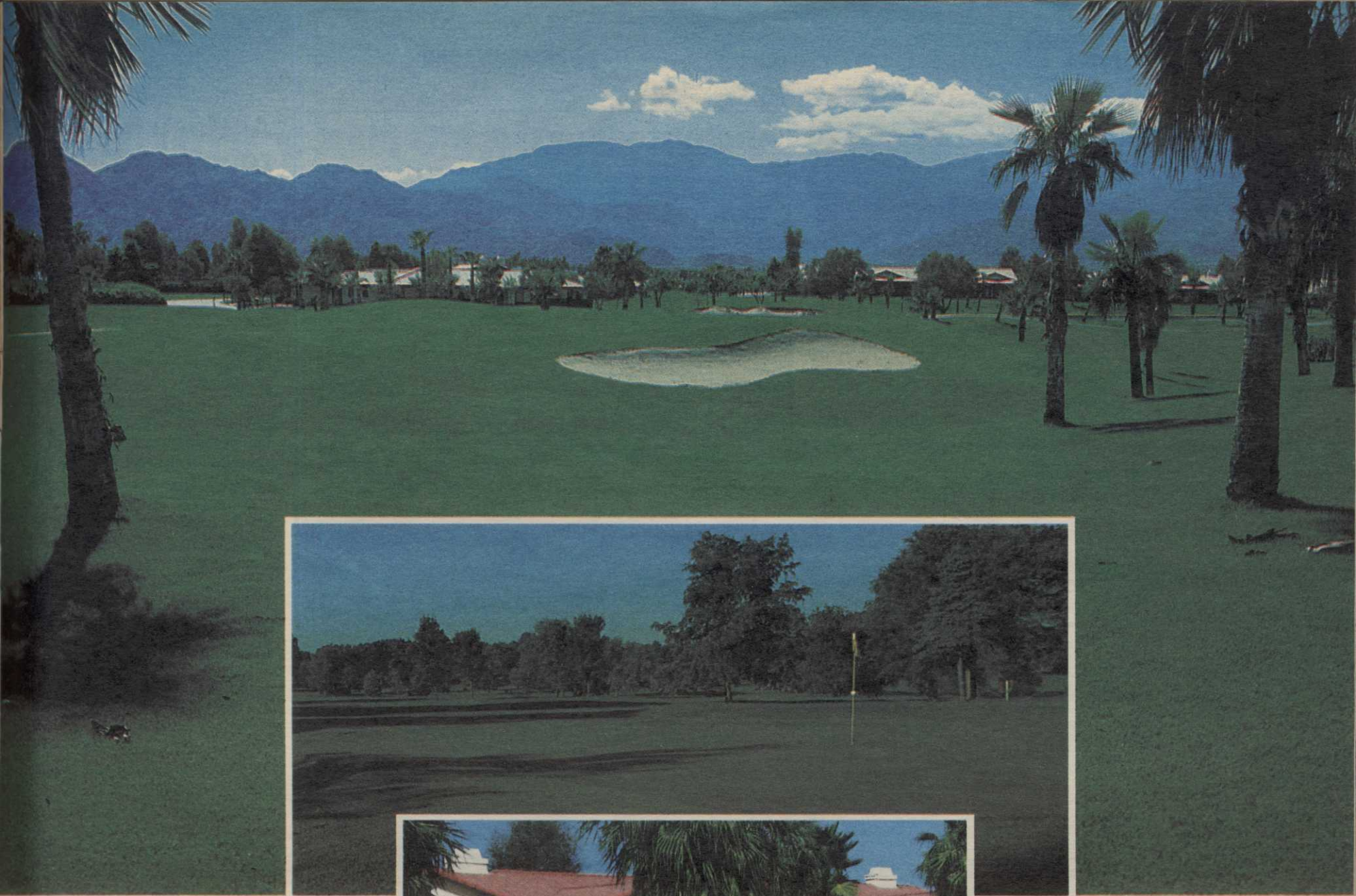
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Golf Course News is published 12 times a year by United Publications, Inc., PO Box 997, 38 Lafayette Street, Yarmouth, ME 04096. The newspaper is distributed without charge to qualified golf course superintendents, greens committee chairmen, club presidents and owners, as well as golf course builders, developers and architects. Correspondence should be addressed to Golf Course News, P.O. Box 997, Yarmouth, ME 04096

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# LETTERS

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## He said it

'God makes golf courses and men find them. We've just found one.'

— Edgar D. Airey Jr.  
Developer  
on proposed Greystone  
CC near White Hall, Md.

## Ancient village spoils plan

A major archaeological find has forced planners to abandon plans to build a golf course in Ohikilolo Valley on Hawaii's Waianae Coast.

Archaeologist Bertell Davis, who was commissioned by the potential developer, Alpha Kai Corp., discovered the remains of an ancient Hawaiian village in February.

Davis, of the International Archaeological Research Insti-

tute, said the find is "one of the most significant prehistoric coastal Hawaiian villages ever to be discovered on Oahu."

A spokesman for Alpha Kai, which is owned by Japanese financier Yoji Takahashi, said the company has not made alternative plans for the property but "any plans would be compatible with the preservation of the archaeological sites."

## Antioch being renovated to former self

The golf management firm GreenVisions, Inc. has begun extensive work to return Antioch (Ill.) Golf Club to "its former caliber."

More than \$1 million has been budgeted for the facelift and improvements to the public course which are targeted for May completion.

Antioch Golf Club, now owned by William Smith Jr., Randall Bus and Daniel Regan, was formerly called George Diamonds and later Harbor Ridge.

Restoration will include new landscaping and rebuilt sandtraps, tee boxes, greens and bunkers as well as redecorating and refurbishing clubhouse rooms and grounds.

The course will remain open during the work.

## Carlton Oaks work complete

A \$5-million facelift to Carlton Oaks Country Club in Santee, Calif., is finished, complete with two new lakes and 35 new traps and bunkers.

Dye Designs Inc. of Denver, Colo., moved 350,000 cubic yards of earth in recontouring the fairways and greens in the one-year project. The contractor also cut down around 100 trees.

Honolulu-based ophthalmologist Dr. Allan Kunimoto and several associates bought Carlton Oaks for \$5.5 million in 1987 and hired Dye for the work.

## Calendar raises money for MS

A 1990 calendar, "The World of Golf," has been produced by Mercedes-Benz of North America for the National Multiple Sclerosis Society.

The 14-1/2-by-22-inch calendar takes an historical look at the game. It can be bought from MS chapters and by mail from the National Multiple Sclerosis Society, 205 East 42nd St., New York, N.Y. 10017; 800-666-PUTT. It costs \$35.

## Grand Prix helps 'Wish' fund

Golf Cars Ltd. will sponsor the second annual Melex/Sun Cities Grand Prix in March in Phoenix, Ariz., to raise money for the Make-A-Wish Foundation.

About \$6,500 was raised at the inaugural event this year by the race which featured media personalities as drivers and Sun Cities residents as navigators.

The race will coincide with the Phoenix Grand Prix.

## Carmel has facelift

The three-year, \$2.5-million renovation of Carmel Highland Resort Golf Course is complete, having opened along with the \$45-million golf and tennis resort in Carmel Mountain, Calif.

Three new holes were built and three were redesigned on the 6,500-yard public course. The resort is managed by the Dallas-based Signet Hotel Corp.



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# Francis clan makes impact on American golf

BY BOB LABBANCE

Necessity was the mother of invention for Manuel L. Francis, and his ingenuity became the father of innovations that have helped superintendents for decades.

Now retired and a spry 86, Francis first turned his progressive nature toward grasses — and invented the lustrous and hardy Vesper Velvet Bentgrass — and later built a machine that vertically sliced turf and has since become a universal piece of equipment.

Francis' intriguing story began in 1903 when he was born aboard a Brazilian steamship en route to Portugal. He would spend his first 16 years in Louzan, and work for his grandfather, Joe Lopes Carvalho, who prepared farms for cultivation and operated a construction business building houses.

"Manny" came to America in 1919 with many skills but little cash or knowledge of English. He worked skinning furs in Danbury, Conn., saved some money, and adjusted to the States, but he longed to return to outdoor work. He got his chance when a Mamaroneck, N.Y., developer was hiring workers to build a series of courses for Donald Ross. Manny turned his talents with plants, irrigation and heavy equipment into a foreman's job.

"I learned so much right away. I was lucky, I always seemed to hit the spot," Manny said, referring to his good luck in American golf. Manny is still fortunate, but remains very modest about his contributions to golf course maintenance.

A pride in doing things right and his quiet modesty have been passed on to his son, Manuel N. Francis Sr., who is 53, a renown superintendent in his own right, and operates Green Harbor Golf Club, their successful public layout in Marshfield, Mass. Manny N. was superintendent at the prestigious Belmont Country Club and a national director of the GCSAA before he and his father bought their property on the south shore of Boston and started a turf nursery in 1965. Green Harbor's 18 holes opened in 1971. He and his wife, Judith, have a son, Manny Jr., and daughter, Kerry.

Manuel N. Francis Jr., 22, is a business major at New England College in Henniker, N.H., and plays number one on its golf team. He has worked in all phases of operations at Green Harbor.

The elder Francis was forced to learn many of those same lessons when the Great Depression hit in the 1930s. New course construction dried up and Manny and Shirley moved to South Portland (Maine) Municipal Golf Course.

"My wife and I, we did everything there, just the two of us. Run the clubhouse, keep the course, manage the business. It was a rough time," he said.

A lifelong interest in plants started Manny experimenting with



Manuel L. Francis, right, and son Manuel N. at Green Harbor Golf Club in Marshfield, Mass.  
Photo by Bob Labbance

German bentgrasses. "I always picked up plants as a kid. I'd take them apart, study them and learn about them.

"Back then, you couldn't read it in a book like today. Greenskeepers always have to read the plant, because the soils don't talk."

It wasn't until 1948, when he moved to Vesper Golf Club in Tyngsborough, Mass., that he named the grass he had cultivated. "Vesper Velvet Bent is a dwarf mini-creeper, a strain that I propagated through selection for its winter hardiness. No other grass will withstand the low cutting that my Vesper will. In comparison to other creeping bentgrasses ... it doubles and triples its stems and blades.

The result, is a luxurious carpet that accepts an incoming iron shot like a velvet pillow but putts lightning quick when shaved down. The deep green blades stand up straight even at low levels, unlike the creeping bentgrasses that lie flat and often produce grain on a putting surface.

From its start at the enchanting antique golfing grounds at Vesper, Manny's emerald green grass has found its way to more than 50 courses in New England from Val Halla in Cumberland, Maine, to The International (with its 7,400-yard tiger tees) in Bolton, Mass., to Cochecho, Manchester and Lake Sunapee, three of New Hampshire's finest private clubs.

Manny also brought the grass to Mexico during repeated visits there from 1954 to 1970, and Vesper Velvet is alive and well on courses from Alcapulco to Mexico City. It is kept growing in New England by Bert Frederick, the superintendent who learned from Manny at Vesper, and who still

cultures the grounds there.

Francis' innovations in turf care have naturally followed his desire to serve the golfing public with better facilities. His lack of patents or need for credit are a throwback to an earlier era when information was shared for the good of the game, not the individual. He consulted for more than 50 courses in New England, usually gratis.

When he watched ice and snow destroy putting surfaces during the Northeastern winters, Manny took heavy equipment on the greens and plowed them off in early March. At first this was considered crazy, but winterkill was cut drastically, and Vesper was in play before other nearby layouts. This was in the 1940s.

At a time when greens were top-dressed with loam if anything at all, Manny was experimenting with sand. He found the low-growing grasses spread more readily and the greens held up better to heavy traffic.

When he needed a machine to allow the fertilizer to assimilate into the surface he built one. He inserted flat, carbon steel blades into a round wheel that was sent spinning at high revolution; vertical slicing was born. In the post-World War II era this was revolutionary; today the practice and the equipment are universal.

His son tackles problems with the same forward-thinking independence and lack of restraint due to what is already available. He needed a driving range at Green Harbor but didn't have 3,000 square yards. The solution is an enclosed cage with 10 mats and a layered screen that drops the balls straight down into a trough. The floating Mac-Tec golf ball is used,

and a gush of water floods the depression every 10 minutes, whisking the balls away and into the building, where they are collected and fed back into the ball dispenser. Although interest has been aroused elsewhere, the range remains a practical solution to specific problem for the golfers at Green Harbor.

The Francis family designed and built every bit of this busy and beautiful public facility on a former cranberry bog on a piece of land once owned by Daniel Webster.

Riding carts are not permitted, and pesticides are seldom used. Not a blade of grass is out of place despite nearly 50,000 rounds a year — many by less proficient devotees toting mis-matched collections of clubs, and sporting t-shirts and dungarees.






When asked if his father had regrets about not doing more for himself over the years, Manny N. Sr. was quick to reply in the Francis style: "No, he's never been like that. Look at these people having fun out here. What he sees is satisfaction enough for him."

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Arthur Hills expects that if Persimmon Ridge Golf Club in Louisville, Ky., "matures the way I expect it to, it can become one of the outstanding golf courses in the country." The 7,129-yard par 72 layout cuts through knolls, trees

and ponds on a 774-acre piece of land on which developer Elmore Just plans to build a second 18-hole course, a golf instructional academy, and home sites.

## Loving stresses recreational golfer

Ray "Buddy" Loving Jr. has designed an 18-hole golf course for the recreational golfer first, at Shenandoah Crossing Farm and Country Club in Gordonsville in Louisa County, Virginia.

Saying research shows "so many courses are too difficult for recrea-

tional golfers," Loving said Shenandoah Crossing is designed with them in mind.

At the same time, Loving said, "It has championship tees and we've designed some intriguing holes among some lovely vistas, so the proficient golfer will enjoy

himself."

The 6,500-yard course winds through the rolling hills of the 1,000-acre resort.

Managing partner Resort Development International reports the course has been seeded and is expected to open for play in 1990.

# NEW COURSES

## Bates' Utah course 'spectacular' sight

Nestled among the desert mountains and laid out around two lakes, the Gene Bates-designed Washington Green Spring Golf Course in Washington, Utah, opened for play in mid-November.

Bates hopes the 6,742-yard, par 71 course, in the southwest corner of the state, will be one of the finest municipal 18's in Utah.

It winds around the two lakes and across several ravines that

bring into play a spectacular mountain backdrop. Bates also used the desert surroundings as a strategic element of play.

Construction began in December 1988 on 150 acres of land donated to the city of Washington by Redlands Corp. and Desert Mutual Investment. Redlands principals and Nels Clayton plan major commercial and residential developments next to the course.

## Sun City Center project surpassing 100 holes

When nine Ron Garl-designed holes open at Cypress Greens in January, Sun City Center, Fla., will "break 100," with 108 golf holes.

Cypress Greens, which already has 18 holes, will offer 27 including the newest nine which plays at par 36 over 3,193 yards.

Sun City Center Corp. Senior Vice President Charlie Brasington said the firm already has plans for

another 18-hole executive course at the site, which is one of the largest self-contained retirement communities in the country.

Garl, who has designed other layouts at the project, features church pew bunkers, split-level fairways, terraces and beach bunkers in this course. It was configured around, through and over environmentally sensitive areas.

## Sherwood Country Club wins Nicklaus' raves

Jack Nicklaus predicts great things for his newest design, Sherwood Country Club Golf Course in Thousand Oaks, Calif., which opened in a prestigious way.

Nicklaus and Greg Norman played a course-opening round on Oct. 30 at the 7,025-yard course, the centerpiece of an exclusive residential community. The course then hosted the inaugural Ronald McDonald Children's Charities tournament on Nov. 17-19.

"Sherwood is one of the outstanding golf

courses in the United States — a magnificent piece of land, so private — with so much natural beauty," Nicklaus said, adding that the day it opened it would "look as if it's been there for 100 years."

The course stretches along Sherwood Lake and a stream flowing from it. Developer David Murdock was committed to preserving the Santa Monica mountain locale by moving and replanting hundreds of mature oak trees that were found on the original site.

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# New courses being planned in U.S.

Location	Course Name	Type	Holes	Address	Architect/Contact
<b>California</b>					
Fresno	Brighton Crest CC	P	N/A	N/A	Johnny Miller Designs Inc.
Carlsbad	Aviara	N/A	18	N/A	Arnold Palmer
Newport Beach	N/A	P	36	N/A	Tom Fazio
Malibu	Malibu GC	N/A	18	N/A	N/A
<b>Florida</b>					
South Dade	Deering Bay	N/A	18	SW 144th St. & 62nd Ave.	Arnold Palmer
Sun City Center	N/A	N/A	18	PO Box 5698	Ron Garl, Links design, Inc.
<b>Hawaii</b>					
Heeia Kea Valley	D		18	N/A	N/A
<b>Illinois</b>					
Glenview	N/A	N/A	9	N/A	N/A
Warren	N/A	N/A	18	N/A	Mike Anderson
Fox Valley	Fox Valley/Oswegoland GC	M	27	Route 30	Ken Kavanaugh
Byron	Byron Forest Preserve Dist. GC	N/A	18	N/A	N/A
Woodridge	Seven Bridges GC	M	18	Village of Woodridge	Dick Nugent
<b>Kentucky</b>					
Kenton County	Fox Run GC	M	18	N/A	Arthur Hills
<b>Michigan</b>					
North Fox Island	N/A	N/A	N/A	North Fox Island Resort	Hellmuth, Obata & Kassaba
Gaylord	N/A	D	18	N/A	Tom Fazio
<b>Ohio</b>					
Jackson Tnsip	Glenmoor CC	N/A	18	N/A	N/A
<b>Pennsylvania</b>					
Martic Township	N/A	P	18	N/A	Creekwood Builders & Dev.
Upper Makefield	N/A	P	18	Highland & Woodhill Rds.	George Michael
<b>Tennessee</b>					
Clarksville	N/A	N/A	18	N/A	Tucker-Hinson, of Nashville
<b>Texas</b>					
Austin	N/A	D	18	N/A	Buster Creagh
Round Rock	N/A	M	18	County Rd. 122	Richard M. Phelps
<b>Virginia</b>					
Fredericksburg	N/A	N/A	N/A	Spotsylvania County	NTS of Louisville
<b>Washington</b>					
Lynnwood	N/A	M	18	City Hall	N/A

From Golf Course News sources.

# Floating green reality in Idaho

The Coeur d'Alene Resort Golf Course, a lakeside, 6,500-yard, par-71 layout in northern Idaho, designed by Scott Miller Design Inc. of Scottsdale, Ariz., is scheduled to open in spring 1991.

The course's signature hole will be a first-of-its-kind 16,000-square-foot floating island greensite set offshore in Lake Coeur d'Alene. The green on the par-3 hole will be moveable and the length and position of the hole will change daily to one of seven predetermined locations.

Boats will ferry golfers to and from the island green, which is surrounded by a sand-trap and landscaped with thousands of red geraniums.

The lake will also serve as the landing area for a practice range stocked with floating golf balls. Fairways will be bentgrass and the course will require extensive tree planting and landscaping.

The Miller firm is also working on two private 18-hole courses in the Los Angeles area, a 27-hole resort facility in San Diego, Calif., and a course in Lenexa, Kansas and one on the Kona Coast of Hawaii.

Also, the firm designed an interesting 18-hole, bentgrass putting course in Mission Viejo, Calif., for the J.M. Peters Co. That project is a scaled, strategic miniaturization of the Old Course at St. Andrews and is scheduled to open soon.

# McCumber researches archives to restore MacDonald layout

Mark McCumber & Associates were sensitive to the philosophy of the original architect of North Palm Beach Country Club — Charles Blair MacDonald — in renovating the course, which has reopened for play.

The course was built in 1926 and designed by MacDonald and his assistant, Seth Reynor. McCumber Golf "adhered to MacDonald's strict design philosophies as close as possible with research efforts into the classical nature of MacDonald's designs

through the museum curator" at USGA's Golf House in Far Hills, N.J., according to McCumber Golf Senior Vice President J. Christopher Commins.

The public, daily-fee facility was closed from April to November for the \$1-million renovation.

Work included reconstructing the 65-year-old greens to USGA specifications and doubling tee space adding forward tees, Commins said.

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## Courses must tackle disposal

Twenty percent of the trash in landfills is landscape waste, and as many landfills across the country close down, the golf course industry will have to find new ways to discard of grass clippings and leaves.

With their landfills filling up quickly, more than 25 states have passed or are studying legislation to change the way people discard of their lawn waste. It is estimated that half of the 16,400 landfills in the United States will be closed by the year 2000. Creation of new landfills is slowed by strict and time-consuming licensing procedures.

States are encouraging homeowners and greenskeepers to recycle lawn debris rather than put it into plastic trash bags.

Bob Tracinski, consumer information manager for John Deere, said, "People can

distribute their grass clippings across the lawn most of the time. Just follow the One-Third Rule and mow the lawn often enough to remove only one-third of the grass blade."

Tracinski said short clippings deteriorate quickly and return nutrients to the soil. Experts estimate that a season's worth of grass clippings is equal to one application of a commercial fertilizer.

While superintendents may worry about a buildup of thatch, Tracinski said thatch is more a product of shallow watering and over-fertilizing.

"Thatch is a layer of dead roots and stems," Tracinski said. "If it's over a half-inch thick, it can impede the flow of water and nutrients to grass roots."

Grass clippings also make good compost.

## GOVERNMENT UPDATE

### Research, education key to ground water problem

Ground water contamination can be prevented by further research and education rather than costly regulation, the U.S. Senate Agriculture Subcommittee on Conservation and Forestry was told recently.

Dr. George Wallingford, East Central

**'A huge body of knowledge and data already exists. It is critical that new research efforts not ignore earlier research, wasting time and resources duplicating programs and "re-inventing the wheel."'**

— Dr. George Wallingford

director of the Potash & Phosphate Institute, told the subcommittee that while incidents of chemical spills and leaking underground tanks have caused problems in some localities, they are site-specific problems and not indications of a national ground water crisis. The vast majority of America's underground drinking water is safe, he said.

He testified that while research will continue to play a critical role in identifying and correcting ground water contamination, existing data should not be overlooked.

"Industry, scientific bodies, universities, agricultural producers and federal and state agencies have conducted ground and surface water research in this country for more than a century," said Wallingford. "A huge body of knowledge and data already exists. It is critical that new research efforts not ignore earlier research, wasting time and resources duplicating programs and 're-inventing the wheel.'"

Wallingford said new research should be integrated with existing science and coupled with industry and producer education to prevent ground water contamination.

Specific research objectives, he said, should:

- Determine the extent and seriousness of potential agricultural contributions to ground water contamination.
- Develop improved farm and ranch production systems using Best Management Practices to improve water quality without sacrificing farmer profits.
- Develop less costly ground water sampling and monitoring techniques.

Wallingford said the Environmental Protection Agency has concluded that additional regulation would mean increased costs for essential services to residents of small communities and could drive many farmers out of business.

Wallingford also told the subcommittee that agricultural fertilizers are often falsely accused of contaminating ground water when unsafe levels of nitrates are found.

Citing a recent survey that found that 2.7 percent of 14,000 drinking water wells in Ohio had nitrate levels exceeding water-quality standards, he said, "Factors such as the age and depth of the well had a much greater effect on contamination than did the well's proximity to cropland."

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# International conclave

## GCSAA expects 14,000 attendees at 61st show

Record attendance and trade show participation are predicted for the Golf Course Superintendents Association of America's 61st International Golf Course Conference and Trade Show in Orlando, Fla., Feb. 19-26.

GCSAA officials report that more than 70 new exhibitors have registered to display their lines. The total number is expected to be between 475 and 500, compared to this year's 463.

Turf equipment and golf course maintenance products will be displayed during the trade show from Feb. 24-26 at the Orange County Convention/Civic Center, and a variety of lectures is planned for superintendents and golf course architects, builders and developers.

The 1989 conference and show attracted more than 14,000 from the United States and 39 foreign countries.

### Golf tournament

The GCSAA said more than 600 association members will compete in its Golf Championship Feb. 19-20 on five Orlando area courses.

Individual and chapter team honors will be contested.

The Midwest GCSA won this year's competition and Myers Point Country Club superintendent Dave Powell of Charlotte, N.C., won his second straight individual championship.

## Sherwood Moore to be honored with Morris Award

Sherwood A. Moore, a past president and 50-year member of the Golf Course Superintendents Association of America, will receive its highest honor, the Old Tom Morris Award, in February.

The recently retired Moore, who continues to work as a consultant at The Captains Golf Course in Brewster, Mass., will join such luminaries as Arnold Palmer, Bob Hope, Patty Berg and Gene Sarazen when he is presented the award at closing ceremonies Feb. 26 at the 61st GCSAA International Golf Course Conference and Show in Orlando, Fla.

Last winter he was presented the GCSAA's Leo Feser Award for best article written by a superintendent for Golf Course Management magazine.

The Old Tom Morris Award was established in 1982 to recognize



Sherwood A. Moore

individuals who have made outstanding lifetime contributions to golf. It is named in memory of Old Tom Morris, greenskeeper and golf professional at Royal and Ancient Golf Club of St. Andrews, Scotland, who was a four-time Brit-

ish Open champion, clubmaker, ballmaker and course architect.

Moore was superintendent at Winged Foot Golf Course in Mamaroneck, N.Y., from 1957-67, and at Woodway Country Club in Darien, Conn., until 1980. In 1980 when Winged Foot was chosen to host the first Senior Open, Moore returned to get the course in condition.

In 1984, he left to join The Captains, and in 1987-88 he also served the USGA Green Section as acting agronomist.

ABC sports commentator and former PGA Tour player Dave Marr, a long-time friend of Moore's, said, "Sherwood's a great superintendent, sure, but he's more than that. He is the kind of person I would assume young people at ... all the fine turfgrass schools would aspire to be like."

## Bengeyfield, Watschke earn association's citations

William Bengeyfield, U.S. Golf Association Green Section national director, and Dr. Thomas Watschke, Pennsylvania State University turfgrass researcher and educator, will be honored for their dedication and outstanding service to golf course superintendents and the golf community at the opening session of the 61st International Golf Course Conference and Show.

Bengeyfield and Watschke have been selected as recipients of the 1990 Distinguished Service Award. The selection was made by the board of directors of Golf Course Superintendents Association of America.

Under Bengeyfield's leadership, the USGA/GCSAA Turfgrass Re-

search Committee has seen more than \$2.8 million raised and distributed for research to develop turfgrass cultivars that will reduce water usage and maintenance costs.

The USGA Turfgrass Advisory Service, a consulting branch of the Green Section, has been an increasingly valuable resource for superintendents during Bengeyfield's tenure as national director. Bengeyfield, a long-time GCSAA member, also operates and maintains Frankfort (Mich.) Golf Course.

For almost 20 of his 35 years with the Green Section, Bengeyfield has also served as director of the Green Section Record.

Watschke is coordinator of Penn State's Landscape Management

and Water Quality Research Center, synchronizing all field research for the five departments that use the facility. He also serves on the Technical Resource/Advisory Committee for Golf Course Management, the technical and professional journal for golf course superintendents.

His research has led to the use of growth regulators to control poa annua, the development of new post-emergent crabgrass control compounds and advancement in broad leaf weed controls and, most recently, to a better understanding of surface run-off on turfgrass. Many of Watschke's former students are turfgrass scientists, perpetuating and extending his commitment to turfgrass advancement.

## Faubel, others vie for GCSAA posts

Gerald L. Faubel has been nominated for the presidency of the GCSAA for 1990-91. Faubel, superintendent at Saginaw Country Club in Saginaw, Mich., currently is vice president of the professional association.

Officers and directors will be elected during the GCSAA's annual meeting Feb. 26 at the Orlando conference and show.

Vice presidential candidates are Stephen G. Cadenelli of the Metedeconk National Golf Club in Jackson, N.J., and William R. Roberts of the Lochmoor Club in Grosse Pointe Woods, Mich.

Three candidates for director will be elected for two-year terms. Nominees for director are Joseph G. Baidy of Acacia CC in Lyndhurst, Ohio; Charles A. Clark of Broadmoor GC in Colorado Springs, Colo.; Cecil C. Johnston, of Avila Golf & CC in Lutz, Fla.; Charles T. Passios, CGCS, of Hyannisport (Mass.) Club in Hyannisport, Mass.; and Randall P. Zidik of Rolling Hills CC in McMurray, Pa.

GCSAA's current president, Dennis D. Lyon of City of Aurora (Colo.) Golf Division will continue to serve on the board of directors as immediate past president.

# ASSOCIATION NEWS

## CMAA certifies 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.

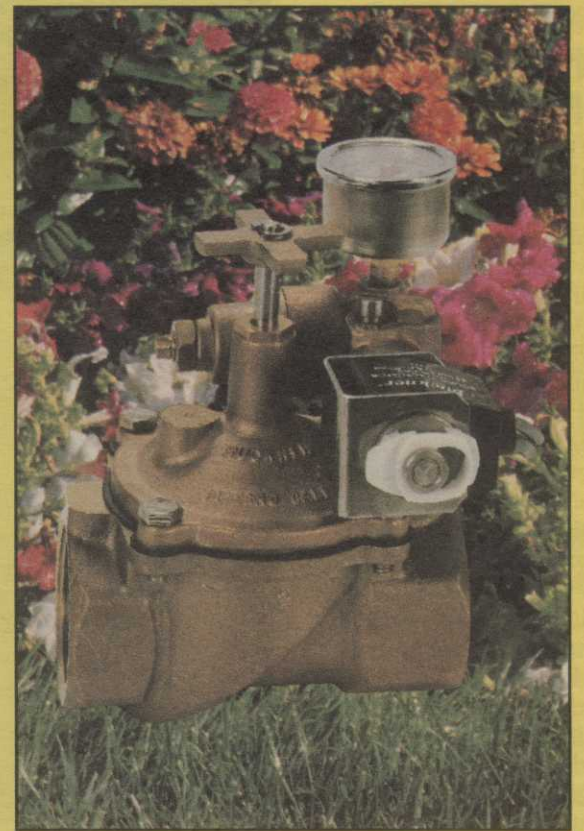
Also, Sandra Gervais of The Graduate Club, Graham Laxton of

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.

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## Westchester pair win Feser

The Leo Feser Award, honoring the author of the best superintendent-written "Golf Course Management" article of the year, will be presented to Ted Horton, director of sports and grounds at Westchester Country Club in Rye, N.Y., and Mary Medonis, an assistant superintendent at Westchester during the opening session of the Orlando show.

"Employee Safety on the Golf Course," which appeared in the April issue, won the prize.

## ON THE MOVE

### Club Car appoints Rivers v-p

Cary H. Rivers has been promoted from national sales manager of direct sales to vice president of sales and marketing with Club Car Inc. of Augusta, Ga.

Club Car President George Inman, announcing the promotion, cited Rivers' work with the company since 1978 and described him as a "confident leader."

Rivers, who joined Club Car as a sales representative in 1978 in the East Florida Branch, moved to Orlando, Fla., to open a branch there in 1982. In 1984 he moved to Augusta in his national sales manager post.

Rivers attended Seminole Junior College and graduated from Florida State University. He was head golf professional for clubs in Florida and North Carolina for six years before joining Club Car.

### Bergen heads PGM team

Paul Bergen of Atlanta has been named president of Professional Golf Management of Destin, Fla., a consulting and management firm also involved in buying and operating golf course properties.

Among Professional Golf Management's clients are developments in Georgia and Florida, as well as Osborn Properties of Birmingham, Ala.

Bergen was formerly vice president of operations at Reynolds Plantation in Greensboro, Ga., a 4,000-acre residential resort community with more than 26 miles of shoreline on Lake Oconee.

Reynolds has retained the services of Professional Golf Management and Bergen will remain involved in its ongoing operation and future development.

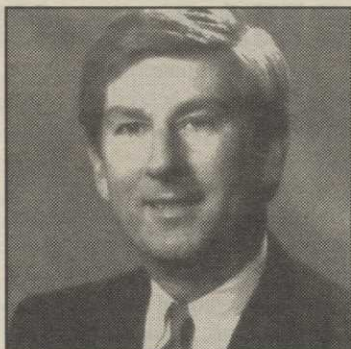
Bergen worked 13 years with Sandestin Beach Resort in Destin as director of golf, director of sports and resort manager. His experience in the golf management field also includes work with Chase Manhattan Real Estate Investment Trust, and Paul Underhill and Associates of New York.

### Wolf from moves to new resort

Bruce Wolf from, who was course superintendent at Barton Hills in Ann Arbor, Mich., for 20 years, has been hired as superintendent at a resort course being constructed outside Gaylord, Mich.

Wolf from will begin Jan. 1 at the facility which is being built by Sylvan Resort owner Harry Melling and is expected to open in 1992.

Wolf from left Barton Hills to build a course near Ann Arbor, but he said investors dropped the project because of wetlands problems.



Cary H. Rivers

## Ciba-Geigy expands staff with line

Ciba-Geigy has added 10 new positions in the turf and ornamental products division in an effort to increase customer service with an expanded product line.

"We entered the turf and ornamental market three years ago with the promise of strong support and a dedicated staff," said Bill Liles, director of the division. "The people we've added to our group provide us with a leadership position for the future."

Two former turf and ornamental sales representatives — Dave Warman and Jose Milan — have

moved to headquarters in Greensboro, N.C., Warman as area sales manager for the southern region and Milan as a member of the marketing staff.

Nick Angelucci, Rick Grant, Chip Houmes and Steve Rezac have moved from the crop chemicals group to turf and ornamental as sales representatives. Don Spier, formerly with Turf Products Ltd., and Don Wilson, from ChemLawn Services Corp., have joined Ciba-Geigy's sales staff as well.

The additions have meant realigning regions for the eight exist-

ing sales representatives.

In addition, Liles said Dr. Don Taylor has been named a senior technical support specialist in the Southeast and Dr. Lisa Lemke has been appointed a technical support representative for the Northeast — both reporting to Dr. Doug Houseworth, technical support manager.

Taylor has been with Ciba-Geigy for 21 years, 13 as a senior scientist in field research in the crop chemicals group. Lemke joins the group from American Cyanamid, where she was a research entomologist.



## Jacobsen promotes Whitehead, Pettifer

Jacobsen Division of Textron has named Ron Pettifer its regional sales manager for turf products in the Midwest sales zone and Wayne Whitehead its national sales manager in commercial products.

Pettifer is responsible for servicing Jacobsen turf distributors in Illinois, Indiana, Michigan, Missouri, Ohio and Wisconsin. He joined the

company in 1985, serving as a dealer sales manager for commercial products and later as national sales manager in commercial products.

Whitehead is responsible for the promotion and sale of Jacobsen commercial equipment throughout North America. He previously served as the company's dealer sales manager in New England and the Middle Atlantic states.

## Hope Plantation names Ritchie super

Michael F. Ritchie has been named superintendent at the new Hope Plantation country club community south of Charleston, S.C.

Ritchie, 27, joined Hope Plantation earlier this year to help oversee construction, planting and grow-in of the course, which opened in November.

"I think this is going to be a very challenging golf course," Ritchie said of the 6,843-yard, par-72 layout designed by Clyde Johnston.

"Every day, the course is going to be different, depending on the

wind and the way we set it up.

"We can set this course up to extremely difficult if we want to, or we can set it up to be playable and enjoyable. But either way, it's going to be challenging."

Ritchie, who holds a bachelor's degree in agronomy from Texas A&M University, served two years as assistant superintendent at Shady Oaks Country Club in Fort Worth, Texas, and was a sales representative for a major turf and irrigation equipment manufacturer and a real-estate salesperson specializing in coastal golf properties.

The Fayetteville, N.Y. native is a member of the Golf Course Superintendents Association of America and the Carolina Golf Course Superintendents Association.

## Video Magazines hires Morris

A pair of USGA employees have joined Video Magazines International, a new home cassette production company formed by ABC Sports and Jack Nicklaus Productions.

John Morris, the USGA's director of communications since 1981, has been named president of the new company. Michael Dann, manager of the USGA's Associates Program since 1983, will become vice president of advertising and marketing.

Headquartered in Liberty Corner, N.J., VMI will produce video magazines for home cassette use. The company's first magazine will be "Wide World of Golf," which will have its first issue in January.

A 1963 graduate of Penn State University, Morris began his career as golf writer for the Baltimore Sun. He also served as sports information director at the University of Delaware for six years and at Penn State for nine years.

Dann, a 1971 graduate of the University of Illinois, also received a masters degree and played on the Illini golf team. He worked for a variety of golf publications before joining the USGA staff. He was also director of public relations for Pinehurst, Inc. (1979-81) and served as executive director and tournament director for the World Golf Hall of Fame (1981-82).

## Dossey joins FMC in sales

Farmers Marketing Corp. of Phoenix, Ariz., has appointed Brenda Dossey to its sales and marketing staff.

Dossey holds a bachelor's degree in agronomy and plant genetics from the University of Arizona and has done graduate studies.

She has worked as owner/manager at Grand Canyon Seed Brokerage of Chandler, Ariz., and worked with Valley Seed Co. of Phoenix.

She will be responsible for special projects as well as sales and marketing at FMC.

## Barcelona joins Germain's

Tracy Barcelona, former area manager with Agricultural Pest Control, has joined Germain's, Inc.'s turf seed sales staff in charge of the Southern California region.

Barcelona will work with golf courses, landscape contractors and municipality industries.

He has served as turf specialist/sales with Target Specialty Products and as sales representative with B. Hayman Co.

Barcelona holds a bachelor's degree from California State Polytechnic University in Pomona.

# Here's what Dan Nordell hits the slopes with each winter

Steep slopes and winter rain used to make mowing tough for superintendent Dan Nordell. No more. Now, a John Deere 3325 Professional Turf Mower mows fairways at the Contra Costa Country Club outside Oakland, Calif. And Nordell and his members have all noticed the difference.

"The weight transfer system on the 3325 is a big help in the winter when the ground gets wet," says Nordell. "You just flip a switch and keep right on mowing. We demo'd the 3325 along with three other fairway mowers on some of our bigger hills before we bought one. Some of the other units couldn't even climb them.

"Since then, we've put over 700 hours on the 3325 and it's done a beautiful job. It's faster than other mowers, and I like the single lever lift of all five reels for cross-cutting. Our members have noticed, and commented, about the improvement in our fairways."

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A John Deere 3325 Professional Turf Mower handles all the fairway mowing at the Contra Costa Country Club outside Oakland, Calif.



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# Pebble Beach: Keeping a course's well-being

BY FRANK POLLARD

Seventy years ago, Samuel F.B. Morse, amid much fanfare on Washington's birthday 1919, opened the Pebble Beach Golf Links — a venue that many feel is still the finest seaside course in North America and perhaps the world. Morse's vision was to create a one-of-a-kind golf course with unsurpassed scenic beauty and an element of difficulty that would always be challenged but never conquered.

Commissioning amateur golfer and architect Jack Neville to achieve this dream was either a stroke of genius or happy chance, but the results were a magnificent creation of 18 holes adapted perfectly to the Pacific headland's sloping inland meadows and along the craggy cliffs bordering the sea — some of the most dramatic and stunningly beautiful coastal terrain in the world.

Playing Pebble Beach today, the golfer negotiates those same unchanged verdant fairways and small contoured greens that became familiar to almost all the world's great golfers over the intervening years. The course remains as Neville and Douglas Grant (who assisted Neville in its design) devised it. The course has remained essentially without major alteration during that shoal of time and the changes that have been made are minor in the overall scheme of things.

It isn't by accident that Pebble Beach is relatively untouched by time. It's been a commitment by, first, Samuel Morse and, following him, those who have worked diligently to make the golfing experience of visiting golfers as nearly perfect as possible.

In 1928, E. Chandler Egan strengthened bunkers on several holes prior to the 1929 U.S. Amateur. As time elapsed, a number of greens and fairways were altered slightly through continuous maintenance by greenskeepers and their crews; fairways became narrower and greens smaller by way of continuous mowing and other maintenance practices.

Preceding the 1972 U.S. Open, Frank "Sandy" Tatum (later USGA president) was asked to take part in course preparation. Tatum sagaciously called in Pebble's origi-

nal architect, Neville, to help in restoring any features of the course that would bring it back to its original design.

This required some reconfigured bunkering on a number of holes, a new bunker guarding the landing area on the 9th fairway, a new championship tee plus a mid-fairway bunker on the 10th, and minor cosmetic cleanup.

The only other major changes made have been installation of cart paths from tee to green on all 18 holes in the late 1970s.

Golfers playing the course have been provided with precisely the same challenges faced by a Jack Nicklaus (1972) or a Tom Watson (1982) who won U.S. Open at Pebble, Bobby Jones playing and being eliminated in the 1928 U.S. Amateur, Lanny Watkins winning the PGA in 1977, and Harry Vardon, Walter Hagan, Ben Hogan, Babe Zaharous, Gene Sarazen, JoAnne Carner, Betty Jameson, Sam Snead, Lawson Little, Arnold Palmer, Byron Nelson, Roberto DiVincenzo and a hundred other golfing greats who came and played either in tournaments or for pleasure.

### Maintenance program

A golf course as a living thing needs extraordinary care particularly when it is one of the world's premiere courses and the venue for major professional and amateur golf events and, at the same time, is a public course frequented by some 60,000 amateurs yearly.

On-going programs of maintenance and reconstruction at Pebble Beach have been uniquely developed to keep the course in tiptop condition so that it is of tournament quality on any given day and not alter the course layout from the way it was conceived in any way.

The commitment of course officials is to be an innovative leader in providing their guests with a golfing experience on their four famous golf courses and preserving Pebble Beach Golf Links in a manner that maintains its original character and appeal in the tradition of the game.

D.J. Pakkala, Pebble Beach's director of golf, puts it this way, "The Pebble Beach Co.



*Pebble Beach's famous and picturesque 7th hole, as it was in the late 1920s, top. In the center photo, taken in 1973, and bottom photo, shot this year, you'll notice that the contour of the green has remained almost precisely the same. The bunkers have changed slightly over the years but have been brought slowly back to the original shape and size as conceived and designed by Jack Neville.*

has put forth a very strong effort to develop maintenance practices that will insure keeping the continuity of the course so that whether the golfer comes back next week, next year, or in 20 years it will look and be precisely the same as it is today, and was in the distant past."

"There have been tremendous improvements in both golf course equipment and maintenance practices over the past few years," says Larry Norman, Pebble Beach Golf Links superintendent. "Where we used to mow fairways every other day or every third day, now we are mowing daily.

"New equipment has allowed more fre-

quent aeration and sometimes weekly top dressing of greens where it doesn't have an impact on the golfer since it's done lightly. Advances in equipment are also allowing us to verticut greens quite often, and where we were doing it weekly, we can now do it very lightly on a daily basis. We are doing a great many tasks on a more frequent and intensive basis with a resultant higher consistency level throughout the golf course."

Norman says one of the keys to better maintenance practices is hiring well-qualified people who are career-oriented in turfgrass management.

*Continued on page 17*

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# Pebble Beach

Continued from page 16

"Now with the costs of managing any golf course skyrocketing with yearly budgets regularly in the millions, superintendents and greenkeepers who are well educated and better trained are a must.

"Here, we are also developing our own programs where our people are being trained not only in golf course maintenance operations but are having the opportunity of cross-training and becoming well rounded in all phases of resort operations including the pro shop and many other phases of resort activities. We currently have 19 green-keepers who are responsible for the course, some areas around the lodge itself, the driving range, and our Peter Hay nine-hole par 3 course."

## Troublesome Kikuyugrass

One of Pebble Beach's major projects has been removal and control of Kikuyugrass.

"It was brought here at some point in the past and planted along the coastal bluffs for erosion abatement," Norman explains. "It is the kind of grass that adapts well but reproducing vegetatively and building upon itself, it spreads and becomes almost unplayable. It also becomes dormant in winter and is generally unsightly.

"Using the 1992 U.S. Open scheduled to be played at Pebble as a goal, we have developed a program to get it under control. We know we can't eradicate it completely but we can control it. We have therefore over the past year stripped 13 holes (with five yet to go) of Kikuyu and reseeded the fairways with a combination of colonial bentgrass, creeping bent and a small amount of fescue. The roughs were also stripped and reseeded with Kentucky bluegrass and perennial rye. And, interestingly enough, we managed to accomplish this prodigious task without disturbing daily play significantly."

He says players today wouldn't know that the work had been done.

"We have instituted a vigilant and continuous program, one of a search-and-destroy type activity, which is keeping the Kikuyu well under control."

## Coastal erosion

Another area of primary concern is the erosion, particularly along the coastal cliffs.

Pebble Beach brought in a group of engineers and seismologists some time ago to see if they could devise solutions to stop some of these erosion problems. Photographs had shown that over a period of years, the coastline along the course had changed and become dramatically different.

"What was interesting," says Norman, "is that we determined that most of the erosion was not coming from tidal activity, rather from seismic activity. We also discovered, to our surprise, an earthquake fault running under the course (under hole 7 and across the course and under hole 13).

When we experienced high incidences of seismic activity, we found that we were losing chunks of earth into the sea.

"We identified the weakest areas and installed riprap sea walls along the 17th and 18th holes to successfully control those areas of erosion. The cliffs along the 4th and 6th holes presented a different problem when we discovered that there was an interface between the parent rock base and the topsoil varying in depth between 14 and 29 feet beneath those fairways. The course ground water was percolat-

ing down through the earth to the rock below and then moving toward the cliff and adjacent sea making the earth above it very unstable."

He says the problem was solved by cutting a trench down to bedrock the full length of each of those fairways and greens (320 yards along No. 4 and 510 yards along No. 6), then installing an intercept drain and drilling outlet exhaust drains from it into the ocean.

"It very nicely stabilized the earth and we've had no trouble with erosion since," he says.

"A tremendous amount of care is taken not to change a thing on the course. Whenever we plan to do anything to the golf course — whether it's a major project or just installing sprinkler heads, repairing cart paths, or trimming trees — we consult the archives that contain detailed records and photographs dating back to the very beginning," says Norman. "It is the philosophy and commitment of the Pebble Beach Co. to continue to maintain and improve the course, being very careful to preserve the integrity of the original

design."

To safeguard this integrity, a series of yearbooks on the course is kept.

"Once a year we take pictures of the tees, fairways, greens and rough throughout the course and keep them in that year's book," Norman says. "In addition, anything we do to the course, no matter how minor, we also take 'before and after' photos as well as noting the reasons we did it and the costs. These also go into the yearbook where we are compiling a living

Continued on page 33



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# A view from a hill

Is what's good for TV, good for average golfer?

BY FRANCES G. TRIMBLE

The desire for "high drama" on the finishing hole at golf courses hosting mayor tournaments has instigated a major new challenge to architects and builders. A case in point is the Woodlands Tournament Players Course, located north of sprawling Houston, Texas.

The Woodlands TPC has been home to the Independent Insurance Agents Open (nee Houston Open) for the last five years. The Bruce Devlin/Bob Von Hagge layout opened for play 12 years ago and the area's PGA Tour event moved to TPC from The Woodlands North course shortly thereafter. For the first time in many years, the tournament's search for a permanent home seemed over.

Everyone was happy . . . for about 5 minutes. But a "Hey, Look Me Over" mentality — the urge to be counted among America's best (Top 25 Resort Courses, GOLF DIGEST, Oct. 1988), has sent TPC management and maintenance back to the drawing board yearly since the move. The most recent alterations play to rave reviews from professionals, spectators, and daily fee golfers alike. Interestingly, nothing changed while everything changed.

Is this a riddle? Richard Luikens, superintendent at the Woodlands TPC and two other on-property courses, describes a need to add more "high drama" to the finishing hole, without touching a blade of grass on the hole itself.



The stadium at Woodlands TPC in Houston, Texas, is a model for others.

Houston Golf Association executive director Duke Butler wanted to create an area which would take the place of and eliminate the expense of erecting and tearing down bleachers which typically accommodated 1,000 spectators at #18 green. tour commissioner Deane Beman's opinion was that so many memorable shots had happened at #18 that changes to the hole itself might not be for the best," advises Luikens.

Truly, the 445 yd par 4, with water curling dangerously close to the green's front right edge, has been the scene of at least three fantastic finishes in recent years.

•Two-time U. S. Open champion Curtis Strange made a cross-country putt to defeat Cal Peete in sudden death in 1986;

•Jay Haas made a long putt to go into extra holes in 1987;

•And in 1988, Curtis Strange birdied #18 to go into a playoff with Greg Norman; he then birdied 18 again to win. Strange said later, the heroic 3-iron approach during regulation gave him the confidence he carried to his first U. S. Open title.

The fat lady sang often and loudly at 18. Hence, it was decided that whatever additions were to be made, would be accomplished around the hole.

Superintendent Luikens says that Duke Butler took photos and measurements at TPC Sawgrass. "Those, and one aerial photograph, were all the specs we had to go on. But TPC Sawgrass was constructed from the outset with the

stadium concept in mind. Whereas, TPC Woodlands was a development golf course that kept getting better over the years even though changes were limited to those which could be made in existing spaces."

In the case of the gigantic stadium mound which now sits at the rear of #18 green, that meant converting an existing hill, with an elevation of 12' to a mammoth pile of dirt triple that size with broad, flat areas on top and access stairs at the rear. To begin, crews cleared an additional 100' behind the green and ultimately a cart trail leading from the 9th green to #10 tee was re-routed.

Luikens says, "We were limited as to how high we could go, simply because for every foot of height

you must have corresponding base and slope. Also, we had a parking lot and a cart barn to contend with."

The stadium setting required 100,000 cu yds of dirt, which came from a Woodlands housing developer in process of digging lakes and streets. "The soil came in, 14 yds at a time, one truck at a time, since there was only one way into the area and one way out. The dirt contractor, was charged with the responsibility of making a very tall, basically round hill. Next, a Conroe (TX) firm with a golf course construction background began the rather tedious, painstaking "notching" process which would result in 9 rows of carved steps, 2' high, 3' wide, and around 120' long."

The work, done with a Caterpillar D-3 bulldozer, is similar to doing brain surgery with a lawn mower and Luikens says, "The operator didn't use anything but a measuring stick to help him get it right. The D-3 has an articulated blade so the operator can cut any sort of pattern he wants even though his machine is sitting on a slope. However, one big consideration was drainage; we didn't want the water to sheet flow down to the green. Instead, the operator created a very slight grade from the center to each end to carry the water away from the green. It worked perfectly. The only other concern we had at this stage was that a summer rain not wash all the grading away before we had a chance to bulkhead."

Hurricane Gilbert, which was expected to ravage the upper Texas Gulf Coast, sent Luikens and his crews scurrying up the hill with thousands of square feet of plastic sheeting to "tarp" the notches after each day's work. However, the storm landed far south of Houston and work proceeded without a hitch. Bulkheading and stairs were added by another Conroe contractor who regularly builds decks and piers for area lakes homes. Irrigation was installed and the stadium area was sodded with Bermuda 419 in early October.

Richard Luikens says the various "jobs" each took longer than expected. "We tended to see each step as requiring less than it actually did. But for having only one aerial photograph and a few basic measurements to start with, I think we did a turnkey job and consequently we won't have to go back in a renovate. We were a little concerned about settling. But we had very few problems along those lines."

The stadium area was originally

Continued on page 27

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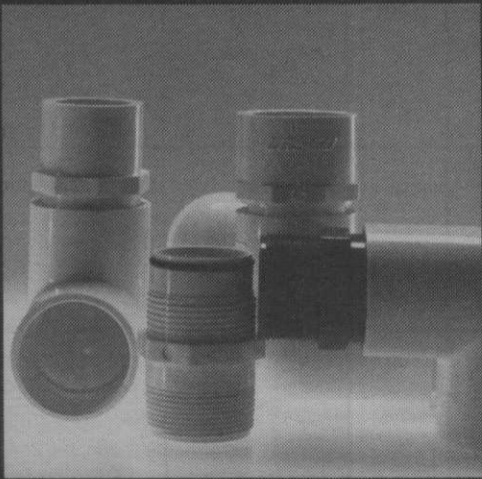
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# GOLF COURSE NEWS

## An exclusive survey

# Well-executed

BY SALLY LEE

The responsibilities of a golf course superintendent are many, but one of the most basic, and important, is turf fertility.

Developing and maintaining a top-notch fertility program has always been an important prerequisite for a superintendent's success in growing and keeping quality golf

course turf.

According to a cross-section of superintendents around the country, while much has changed in the use of fertilizers, much has remained the same. One common denominator of a well-planned and well-executed nutrient program is regular soil testing.

Company	Trade Names	Region	Course Area	Liquid or Granular	Particle Choice	Micro-nutrients?	Homo-genous?	Sulfur coated	Fertilizer with			Contact
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<b>Aglukon Agri-Products</b> 50 N. Harrison Ave. Congers, NY 10920 800-832-8788 Circle No 201	Wuxal, Viterra Gelscape	Nat'l	All	L	N/A	Yes	N/A	N/A	No	No	No	Rochelle Kalter
<b>Back to Earth Resources</b> 5535 Yale Blvd., Ste. 200A Dallas, TX 75206 214-373-6776 Circle No 203	Greenskeeper	Reg'l	G	Organic	N/A	N/A	SM	No	No	No	No	Donna Malmberg
<b>Distributors Own Turf Sup.</b> PO Box 733 Elm Grove, WI 53122 800-345-DOTS Circle No 206	DOTS	Nat'l	All	G	Yes-2	Yes	Both	N/A	Yes	Yes	No	Support Staff
<b>Doggett Corp.</b> 30 Cherry St. Lebanon, NJ 08833 800-448-1862 Circle No 205	Tree, XL, Injecto Feed, Turf, Total & Turf Special	Int'l	GF	L	N/A	Yes	H	N/A	No	No	No	Roger Mellick
<b>EnP, Inc.</b> PO Box 218 Mendota, IL 61342 800-255-4906 Circle No 207	Fertile Grower	Nat'l	All	L	N/A	Yes	H	N/A	No	No	No	Thomas S. Smith
<b>Garfield Williamson, Inc.</b> 9 Steward Place Fairfield, NJ 07006 800-435-5296 Circle No 208	Proform	Reg'l	TFR	G	No	Yes	Both	Both	No	No	No	David Jackson
<b>Howard Johnson's Ent.</b> PO Box 2990 Milwaukee, WI 53201 800-642-4656 Circle No 211	N/A (customize)	Nat'l	All	G	Yes-2	Yes	Both	No	Yes	Yes	No	Michael Stephens
<b>J.R. Simplot Co.</b> PO Box 198 Lathrop, CA 95330 209-858-2511 Circle No 225	Best Professional Pdts.	Reg'l	All	Both	Yes-4	Yes	Both	Non	Yes	No	No	Brad Baltzer
<b>Lebanon Chemical Corp.</b> 1600 E. Cumberland St. Lebanon, PA 17042 717-273-5554 Circle No 213	Country Club,, Greenskeeper, Lebanon	Nat'l	All	Both	Yes-2	Yes	Both	Both	Yes	Yes	No	Amelia Eisenhauer
<b>Lesco, Inc.</b> 20005 Lake Road Rocky River, OH 44116 800-825-3726 Circle No 214	Elite, Mini, Standard	Nat'l	All	Both	Yes-3	Yes	H	Both	Yes	Yes	Yes	Mark Beliczky
<b>Milorganite Div. of MMSD</b> 735 N. Water St. Milwaukee, WI 53201 414-225-2222 Circle No 215	Milorganite	Int'l	All	G	Yes-2	Yes	H	Non	No	No	No	David Wersland
<b>Moyer Products, Inc.</b> 1540 E. Shaw, #101 Fresno, CA 93710 714-549-2871 Circle No 216	Lawn of Golf, Verisol, Four Seasons, Superblend	Reg'l	All	Both	Yes-2	Yes	Both	N/A	Yes	No	Yes	Gill Oloresisimo

# plan for nutrients critical

The dominant trend in the past several years has been a dramatic reduction in the amount of applied nitrogen and an increased importance of phosphorus and potassium, according to professionals in the field.

Explaining why, Dr. John Street, associate professor of agronomy at The Ohio State University, said, "The industry became more

aware of the detrimental effects that high nitrogen levels can have. For example, more disease problems—like pythium and brown patch — especially in the summer and the fact that very lush, succulent turf is less tolerant to stress factors like heat and drought. Another negative was that the heavy nitrogen was doing nothing to create

deep root systems."

Steve Gipson, superintendent at Fairlawn Country Club near Akron, Ohio, reiterated the reduced emphasis on nitrogen and growing importance of the other major nutrients.

"We now fertilize for the health of the grass rather than just color," Gipson said. "We're using substantially higher rates of

potash — approaching the nitrogen levels used in the past. I would hope that the industry is getting away from the real high-analysis products that put down so much nitrogen."

Gipson also said lightweight fairway mowing has influenced fertilization.

*Continued on page 22*

Company	Trade Names	Region	Course Area	Liquid or Granular	Particle Choice	Micro-nutrients?	Homo-genous?	Sulfur coated	Fertilizer with			Contact
									H	I	F	
<b>O.M. Scott</b> 14111 Scottslawn Rd. Marysville, OH 43041 513-644-0011 Circle No 227	Scotts ProTurf	Int'l	All	Both	Yes-2	Yes	Both	Both	Yes	Yes	Yes	Susie Calhoun
<b>Old Fox, Inc.</b> 38 No. Court St. Providence, RI 02903 401-421-6160 Circle No 217	Old Fox	Reg'l	All	Both	No	Yes	SM	Both	Yes	Yes	No	Bob Griffin
<b>Par Ex Div. of Vigoro Ind.</b> PO Box 512 Winter Haven, FL 33882 813-294-2567 Circle No 229	Par Ex, IBOU	Int'l	All	G	Yes-2		Both	No	Yes	Yes	Yes	Dotty Frazzari
<b>Parkway Research Corp.</b> PO Box 5441 Kingwood, TX 77325 800-442-9821 Circle No 218	Micro-Mix, Viron, Green Up, Turf-Feed Plus	Nat'l	All	L	N/A	Yes	H	Both	No	No	No	Ray Kimmel
<b>RGB Laboratories</b> 1531 Charlotte St. Kansas City, MO 64108 800-879-4766 Circle No 220	Agri-Plex, For-X, Lawn-Plex	Int'l	All	L	N/A	Yes	H	N/A	No	No	No	Kurt Winkler
<b>Ringer Corp.</b> 9959 Valley View Rd. Minneapolis, MN 55344 612-941-4180 Circle No 221	Restore	Nat'l	GT	G	Yes-2	No	H	Non	No	No	No	John Doyle
<b>Shemin Nurseries</b> 1081 King St. Greenwich, CT 06831 203-531-7352 Circle No 230	Shemin	Reg'l	TFR	G	No	Yes	Both	Both	Yes	No	No	Jim Hesse
<b>Sierra Crop Protection</b> 1001 Yosemite Dr. Milpitas, CA 95035 800-492-8255 Circle No 224	Custom Blen, Peter's	Int'l	TFR	Both	No	Yes	H	Non	No	No	No	Mark Broxon
<b>Sustane Corp.</b> 1107 Hazeltine Blvd. Chaska, MN 55318 612-448-8828 Circle No 228	Sustane	Int'l	All	G	Yes-3	Yes	H	No	No	No	No	Tom Hunter
<b>The Andersons</b> PO Box 119 Maumee, OH 43537 800-225-2639 Circle No 202	Tee Time	Nat'l	All	Both	Yes-4	Yes	Both	Both	Yes	Yes	Yes	Doug Masters
<b>W.A. Cleary Chemical</b> 1049 Somerset St. Somerset, NJ 08873 800-524-1662 Circle No 204	Cleary's, Fluf	Nat'l	GTF	L	N/A	Yes	SM	Non	No	No	No	Bron Zienkiewicz

Because turf fertility is so vital, Golf Course News surveyed the companies manufacturing fertilizers for golf course use. Response to the more than 25 surveys mailed was excellent and much of the information is highlighted here. This chart tells each company's 1) trade names; 2) the region it serves; 3) the areas of the course its fertilizers are used on: T (tees), F (fairways), G (greens) and R (roughs); 4) if it makes liquid or granular fertilizers, or both (L, G, or Both); 5) if it makes more than one size particle in its granular fertilizers, and how many sizes; 6) if it offers fertilizers with micronutrients; 7) if it produces homogeneous or simple mix fertilizers, or both; 8) if its products are sulfur-coated, non-sulfur-coated, or both; 9) if it makes combinations of fertilizers with herbicides (H), insecticides (I) or fungicides (F); and 10) the contact person at the company whom a buyer should contact.

# Fertilizers

Continued from page 21

"Because we are now maintaining lower cut, denser fairways, we need smaller particle fertilizers that can readily filter down into the turf. This has broadened the product selection because more companies are now offering products in a wider variety of particle sizes," he said.

## Return to moderation

Overall, the trend toward reduced nitrogen has been well received within the golf industry, and Street believes the industry is see-

ing a return to more moderate levels — "somewhere between the high levels of several years ago and the very low levels seen recently."

"Superintendents over the last five years or so have significantly reduced nitrogen rates and they have been pretty successful," Street said. "A few years ago it wasn't unusual to find annual rates of 10 to 12 pounds of nitrogen per 1,000 square feet on greens and now it's not unusual to find a superintendent putting down as few as one to two pounds and still doing a

good job of maintaining quality putting surfaces.

"The programs of today are based more on the density, recuperative potential and growth of the turf. Color isn't as critical."

But despite the success of maintaining quality turf with less nitrogen, Street also pointed out that after a period of three years or so, the turf often begins to exhibit signs of stress.

"Eventually, growth, density and the recuperative potential begin to suffer and when the superintendent assesses the problem, it may

not even be immediately linked to nitrogen," Street said. "But basically, low nitrogen disease problems, like dollar spot, become more common and eventually the fungicides won't even do a good job because the nitrogen levels are so low. Although it will vary from course to course, I am beginning to see an upward adjustment to a more moderate level of three to six pounds of nitrogen per 1,000 square feet on greens."

Street said the increasing popularity of lightweight fairway mowing may hasten the return to more

moderate fertilization levels.

"Problems associated with low nitrogen levels are magnified by lightweight fairway mowing, especially when clippings are removed," he said.

As for the importance of phosphorus and potassium, Street agrees that changes are taking place there, too.

"In general, ratios of 3-1-2 to 5-1-2 have typically been considered acceptable," Street said. "But recent research from the University of Nebraska has started a trend toward high-potassium fertilizers with N-K ratios approaching 1-to-1 or even 1-to-2. Research has shown these ratios increase the tolerance of cool-season grasses to summer stress and the tolerance of warm-season grasses to winter stress."

## No rules

Although reduced nitrogen use may be the trend for many courses, it is not a concrete rule. Courses built on sandy soils characteristically have a low cation exchange capacity (CEC) and high percolation rate which means nutrients leach very quickly. On courses like these, high rates of applied nitrogen are still necessary.

At Moreno Valley (Calif.) Ranch, a 27-hole course owned by Landmark Land Corp., superintendent Murray Nonhof puts up to 16 pounds of nitrogen per year on his Penncross bentgrass greens. The course, open just a little more than a year, is located in a semi-arid area 45 miles from Disneyland and 60 miles from Palm Springs.

"We have greens built on four inches of pea gravel and 16 inches of sand," Nonhof explained. "Because of our low CEC and all the leaching, we have to put down a lot of nitrogen."

Nonhof tests the soil twice a year and bases his fertility program on the results.

"I'm a firm believer that a good superintendent should base his fertilizer buying on what the soil tests show," he said. "It's not a monetary decision, but a decision based on soil chemistry. A 'by gosh or by golly' approach isn't going to work anymore."

Nonhof feeds the turf on his course with a slow-release granular, but is planning to install an injector system to supplement his fairway nutrition program.

"We'll put iron, ammonium sulfate and straight nitrogen through the system, but it will be purely supplemental to our granular program," he said.

## Southern sand

Although thousands of miles away from Nonhof's southern California tract, Dick Gray, superintendent at Loblolly Pines Golf Club in South Florida, faces much the same situation. Located in the town of Hobe Sound, in what Gray likes to term "Olde Florida," the course opened for play in December 1988. It was built almost entirely on sand.

"We have less than 2 percent silt

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# Builders

*Continued from page 1*

standing job of building stadium courses throughout the country," said builders association Executive Director Donald Rossi.

Opened 10 years ago, the TPC at Sawgrass, located just outside Jacksonville,

# Fertilizers

*Continued from page 22*

and clay," Gray said. "The rest is sand. Our CEC is one or less, which is extremely low. Basically, what that means is that anything the plant gets, we have to give it. Consequently, the fertility requirements of this course are much greater than a course with a higher CEC."

The fairways at Loblolly Pines are 419 bermudagrass, while the tees, aprons and collars are 328. Gray applies approximately 10 pounds of nitrogen and 10 to 12 pounds of potash per 1,000 square feet per year to these areas. He puts down phosphorus at a four- to five-pound rate.

On greens, the amount of nitrogen Gray applies in a year's time is less because the dwarf bermuda is overseeded to Penncross in November.

"We use close to eight pounds of nitrogen per year on our greens," Gray said. "The bentgrass requires less and since we are only growing bermuda six months out of the year we don't fertilize the two months prior to overseeding because we don't want the competition."

To meet the nutrient demands at Loblolly Pines, Gray depends on a fertilizer with a urea formaldehyde nitrogen source and supplements with a natural organic sludge material. Although his applications are primarily granular, Gray fertigates with a custom-formulated 8-2-8 liquid.

Gray also is a strong proponent of soil testing and agrees with the idea of keeping a fertility program as lean as the soil and the turf will allow.

Perhaps he spoke for the others and summed it up best when he said, "The beauty of a low fertility program is that adding is easy ... taking away is tough."

*Sally M. Lee is a freelance writer based in North Ridgeville, Ohio.*

Fla., was the first of the stadium courses. There are now 14 in the United States with another six in varying stages of planning and construction, according to PGA Tour Director of Public Relations Sid Wilson.

There is another in Bato, Japan, the site of a recent United States-Japan Seniors championship. Another 10 Japanese TPC courses are on the drawing board, Wilson added.

"We're obviously delighted that the TPC network is being honored by its peers," said the PGA Tour official. "The Tour has always taken great pride in its TPC courses. Our players become involved as consultants and work very closely with the architects. Yet while the pros play on the course one week a year, he is still very playable for the members the rest of the year."

GCBA President Perry Dye of Dye Designs will make the presentation, which has become one of the highlights of the association's annual meetings.

"We're very proud of how this award has grown since it was first presented in 1984," said Rossi. "There were just 40 people at the first awards dinner. Last year there were 225."

The National Golf Foundation was the inaugural award-winner. Following the NGF to the podium over the last seven years were the Golf Course Superintendents Association of America, Golf Course Architects of America, Professional Golfers Association of America, Club Managers Association of America and last year's winner, the U.S. Golf Association Green Section.

# Domino's founder opens The Rock

Domino's Pizza Inc. founder and chairman Tom Monaghan has opened The Rock, a new golf course on Drummond Island in Michigan.

Designed by Harry Bowers, a former understudy of Robert Trent Jones Sr., the 257-acre course was built to encourage walking. It is a six-mile walk compared to the average 4.5-mile walk around an 18-hole layout.

Monaghan has named each hole after a Domino's executive or a celebrity he admires—like former President Gerald Ford, University of Michigan football coach Bo Schembechler and Detroit Tigers manager Sparky Anderson.

The \$5-million course adds to a hotel and conference center development.

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# Flymo

Continued from page 1

steep bank and cut off a toe or finger," explained Masciarella.

Faced with millions of dollars in injury lawsuits and concerned for the safety of golf course workers, Flymo's Canadian manufacturer stopped selling the mower in the United States in 1985, according to Masciarella.

That created a big problem for Precision Small Engine. The Pompano Beach, Fla.-based company, which had carried the Flymo line since 1978, had been doing better than \$500,000 in Flymo sales annually.

"We decided we had to either come up

with a new product line or develop a way of making the Flymo safe. We had so much experience with Flymo that we decided to develop the "Safety System," said Masciarella.

Flymo, which is now manufactured in England and still enjoys wide distribution throughout Europe (where the machine is rarely put through the rigorous use it is in this country) had little reason to develop such a system, said Masciarella.

So he decided to do it himself. Working with Precision Small Engine sales manager George Whistler and cousin Steve Brandt, the Florida businessman spent the next 2 1/2 years and over \$50,000 trying to come up

with a safety device that would be acceptable to golf course superintendents.

"We worked a lot of nights and weekends. We put together plastic models. I even kept what I called a Flymo Bible that I used to write down anything that occurred to me," said Masciarella.

What they came up with was an aluminum disc with a triangular monofilament line that snaps in and replaces Flymo's metal blade, effectively turning the mower into a large weed trimmer.

"If the monofilament line hits someone it may sting, but it isn't going to permanently disable the operator," said Masciarella.

Masciarella patented the 'Safety System'

in September 1988. He then approached the English manufacturer of Flymo, which conducted its own tests.

The British company accepted the design and will be incorporating it into its new mowers.

In exchange for the patent rights, Precision Small Engine was named the exclusive U.S. distributor of the safety kit and the new mowers.

Convincing superintendents and club managers (who often faced their own personal injury lawsuits) that Flymo could be made safe was our biggest accomplishment, said Masciarella.

His company has demonstrated the 'Safety System' at various trade shows. Apparently the superintendents liked what they saw, ordering 3,500 of the \$49.95 kits already this year.

"We're not making much at that price," he said. "It's really a promotion. They stopped selling new machines here in 1985. That means most of the Flymos are at least five years old. We're hoping that the superintendents will be buying new units (which cost about \$700 apiece) down the road."

The manufacturer has redesigned a commercial Flymo unit and dubbed it a golf course trimmer. In addition to the 'Safety System', it has been beefed up with a commercial engine better suited to the needs of a golf course.

An 18-hole course will usually have between one and five of the Flymo units. With a market of 15,000 courses, and another 4,000 expected to come on line in the next 10 years, Masciarella is optimistic about Flymo's future. He expects to sell between 2,000 and 3,000 new mowers next year and projects sales at 15,000 within three years.

"We're gearing up for the February International Golf Course Conference and Show in Orlando right now," said Masciarella. "We'll have an inventory of 500 mowers then with another 500 on the way in May. We've already pre-sold 300 of them."

"Our new unit is going to be more expensive than the other so-called Flymo unit imitations. But ours is the only one that is going to be safe."

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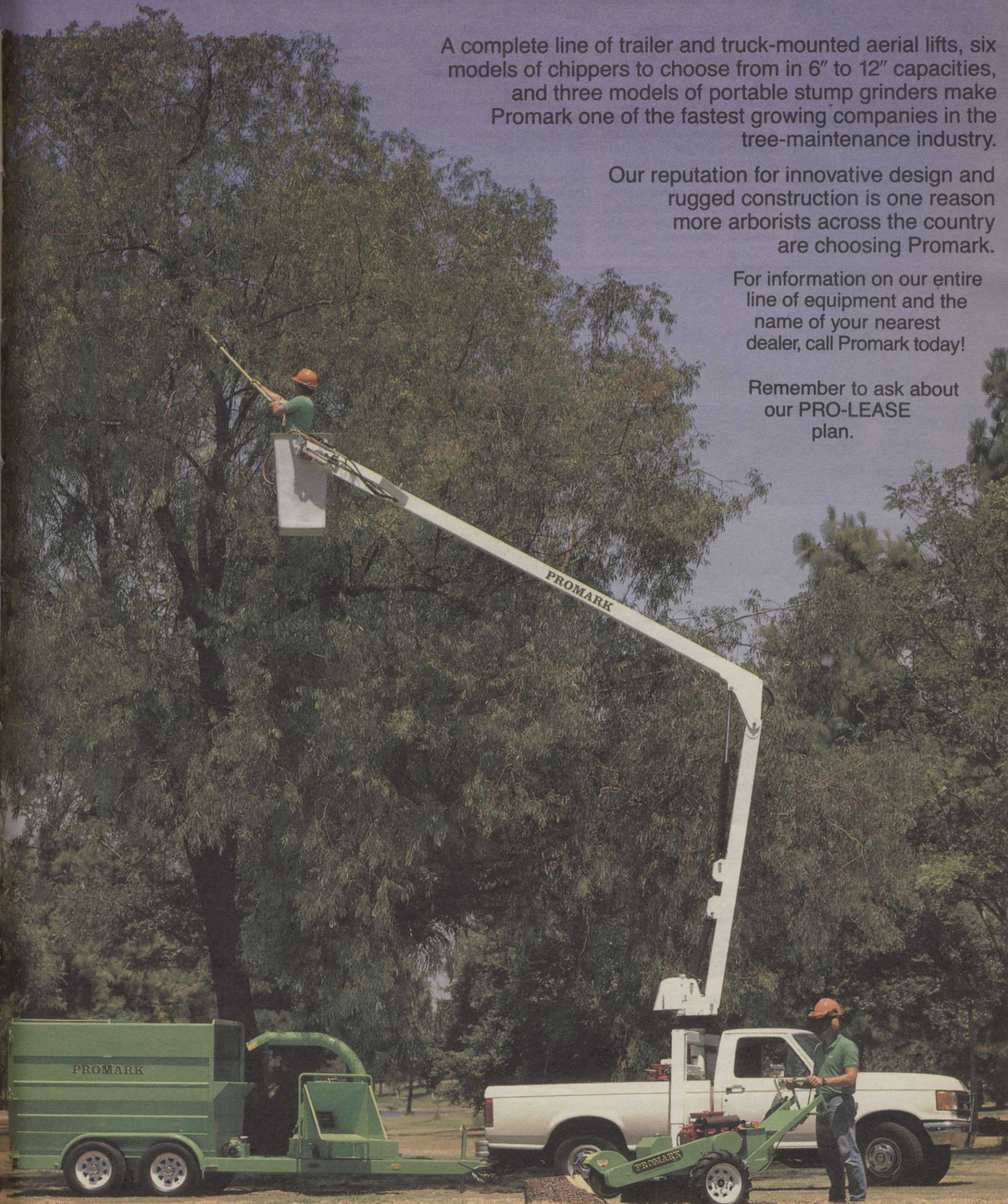
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# Miracle

Continued from page 1

construction, said: "We took no shortcuts on quality. You can't afford to cut back there."

Architect Gregory Martin of the Ives/Ryan Group in Downers Grove, Ill., said, "The quality of work was extraordinary."

Superintendent Renny Jacobsen said: "We are dedicated to the quality of the course. Every step of the construction was carefully managed... There were no short-cuts."

But the time was short. Jones said construction began June 9 and seeding was finished Oct. 15.

Taking into account two weeks of rainouts, Martin said the work was completed in 95 working days, with crews of as many as 120 men on the course at one time and working dawn to dusk.

"As phenomenal as all of this sounds, there are procedures and techniques that can be used over again to develop a golf course in this time frame," Martin said. "A 'critical path' of construction was developed immediately targeting various tasks to be completed by certain days to maintain the pace... "This golf course had some large

hurdles to clear to finish construction. However, the critical path concept could be used on other courses to complete a '90-day miracle.' "

Jones explained that Cenvill was building a residential development and wanted the course built quickly for sales reasons. "We wanted a product out there to let people know we were serious about building homes and a course. Development of a golf course turns a construction site into a place you can live," he said.

Rossi agreed about the impor-

ance of a course to such a development. "It's axiomatic that in that case you've got to have a golf course to sell real estate," he said.

Jones sent accolades to Martin; Kenova; Kuhn Construction of Illinois, which was the heavy earth mover; and Landscape Contractors of Illinois, which seeded the course.

Construction of 20 holes and a practice fairway included:

- Moving 800,000 cubic yards of topsoil and clay.

- Laying 21 miles of irrigation pipe, or three times the average

amount, Martin said.

- Installing 1,100 heads in a three- to four-row irrigation system that gives the 200-acre course wall-to-wall coverage, according to Jones.

- Installing single-head control to give superintendent Jacobsen the ability to better control the million-gallon-a-day peak predicted use of water.

- Building a pumping station underground so that only the roof is visible, to reduce aesthetic impact and lower the noise level.

- Digging several small lakes.
- Constructing nearly everything to USGA specifications (except that the greens do not have the chocker layer of sand).

- Building greens that average 7,000 square feet.

- Seeding the greens, tees and fairways with bentgrass and the roughs with a bluegrass-ryegrass-fescue mix.

"This was a big project under any time frame," Jones said. "I don't think anyone's ever done anything like this."

Martin said that when Cenvill proposed the six-month time frame he and Jones were at first taken aback, but then "thought it was possible if we got the right players."

Jones said Cenvill held a bid conference with a dozen golf course contractors in April. "We demanded the course be built on our time schedule. The only one interested was Kenova and they outlined a plan to get it done," he said. "Kenova would have four irrigation crews working at one time. There'd be 80 people on the course from Kenova alone — 125 altogether sometimes.

"The cooperation and coordination were simply extraordinary."

"Everything had to fall right into place," said Balogh. "There was no time for error... We were working in several different areas at the same time and needed supervision right there and had to move on immediately... like earth moving; as soon as the shaping was done the fine shapers moved right in."

Despite the speed with which the course was completed, Balogh said he could have cut three to six weeks off the time if he had all the equipment he wanted on site from day one. But Kuhn was also busy at other sites and couldn't immediately provide all the gear.

At the peak of construction, 44 pieces of equipment were on site, including 15 scrapers, six bulldozers, eight trucks, two front-end loaders, two box blades, four shaping bulldozers, two seeders, two trenchers, two backhoes and one greensmix machine.

Martin, who was on site daily to make constant adjustments, said the large earth moving was done for engineering purposes as well as to help turn the cornfields into rolling fairways.

Martin said the earthwork was well coordinated between residential and golf course, but the drain-

Continued on page 27

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# Stadium courses

*Continued from page 18*

projected to accommodate 1,000 spectators; the same number as had been seated in bleachers in years past. "We figured we would need 18 inches per person or 1500 linear feet. In actuality, the last day of the tournament we had probably 3,000 people watching golf from the mound," he said.

"Some of those occupied a "Skybox" for patron sponsors which was constructed on a flat area, to the golfer's right. To the golfer's left was ABC-TV booth. In past years, ABC had to build a tower and put a booth atop that. In 1989, they simply constructed the booth. They had a great view."

## Miracle

*Continued from page 26*

age was also critical. "All eight lakes on the course serve as detention for the initial phases of the development," he said.

The earth, Martin said, was essentially topsoil that had to be moved from housing sites. That topsoil was moved onto the fairways, which were sometimes raised two to three feet, well above the recommended six inches.

The rest was clay, which was used under pads of houses. One way to get clay, he said, is to dig lakes; thus the lakes.

"The design will surprise people in the area," said Martin, who has worked with Jim Spear and designed a half-dozen courses before Carillon. "Cenvill went the extra mile to get things done. They were a great client and knew what a golf course can do for a development."

The 18th hole features a peninsula fairway. Water comes into play on 11 holes. There are only 60-plus sand traps but those are 4,000- to 5,000-square-foot traps. And the builders are still busy creating eight- and 13-acre lakes (deep enough to sustain fish) to buffer the golf course into the housing.

"I was quite nervous about it getting done," said Jones. "No one thought it could be done... This is unheard of."

But Kenova's Balogh said: "I love challenges like that. I'd do another one tomorrow."

He may get his chance. He said he has already been contacted by several groups in the Chicago area that are interested in what he calls "The Fast Track Way."

"We came here into this area (southwest Chicago suburbs) from Florida, and we have found one of the finest situations we've ever had — excellent relationships with the unions and suppliers, dedicated managers, and a great labor force, people willing to give you 12 hours of hard work for 12 hours of pay. Even with all the planning and equipment, it takes good people to do a good job."

People will be able to judge that job on July 1 when the Plainfield course officially opens. But Jones added, "You can play three holes right now."

If Luikens has a problem with his dirt pile, it is one he readily accepts. "We have to mow the rows or benches with a Flymo and a Weedeater. It takes about two hours and that's costly. Over the years we've lengthened holes, moved bunkers, put mounding down the sides of fairways, anything to improve individual holes or groups of holes. The big hill behind No 18 will probably benefit more people in more ways."

How does Luikens justify a \$100,000 "bump" on a daily fee course?

"Ask yourself," says Luikens, "does the daily fee golfer deserve a course with all the excitement he would expect to find on a championship tract played by pros? We think he does."

Gary Rippey, TPC's head professional concurs. Rippey adds the course averages 37,000-40,000 rounds per year, of which 25,000 are tournament rounds.

"Those include corporate outings," advises the pro. "Plus, we hosted the Golf Digest ROLEX Intercollegiate and the U. S. G. A. Senior Womens' Amateur this

spring and summer and will host the Lee Trevino State Open this Fall." In 1988, TPC was the site of the Insurance Youth Golf Classic tourney and several qualifying events as well.

The comment of one PGA Tour official to superintendent Luikens sums up the effort and finished product. "He told me that we had the most natural looking stadium on Tour," said Luikens. And a pretty nifty stage for the fat lady's finale as well.

*Frances Trimble is a freelance writer based in Houston, Texas.*

## Sod Producers schedule plans

The American Sod Producers Association's convention dates are set through February 1992.

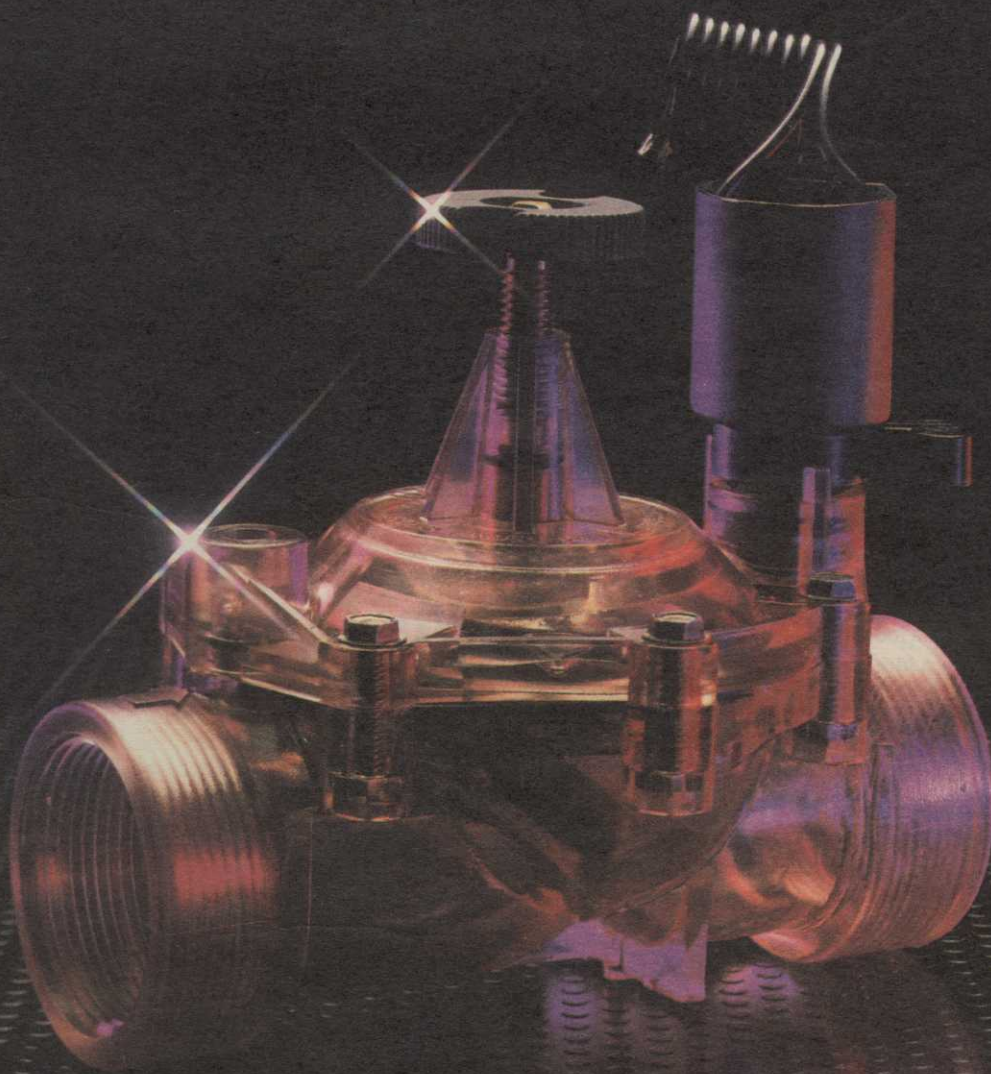
The Feb. 14-16, 1990 midwinter conference in Orlando, Fla., will be followed by the July 25-27 summer convention in Ottawa, Ont.

The Jan. 23-25, 1991, midwinter conference in San Antonio, Texas, will be followed by the July 24-26 summer convention in Santa Barbara, Calif.

The Feb. 5-7, 1992, midwinter conference will be in Las Vegas.

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## Quake recovery

Continued from page 1

green and tees, and the loss of electricity, which caused fears of turf danger when 80-degree temperatures scorched courses the next few days.

The worst-case scenario was discovered at courses around Santa Cruz.

Superintendent D. Campbell Turner of DeLaveaga Golf Course in Santa Cruz reported one four-inch-wide crack that zig-zagged 50 feet through a green and collar, two 10-foot-long "settling" on other greens where the surface was displaced, and separations in his PVC irrigation system.

Turner reported that in mid-November he was still repairing the 18th green, where his crew had lifted sod and packed the crack with greensmix "so the water doesn't go down and lubricate things and make it more prone to slippage."

Turner said the PVC irrigation system's four-inch main line was pulled apart four feet. Aftershocks the next 10 days opened up some other three-inch lines, he said, "and then we had some leaks on laterals (lines from remote-control valves in the field to the sprinkler heads) since they're not under constant pressure you don't discover the breaks right away."

"We haven't had time to repair them all yet."

DeLaveaga Golf Course was closed the next day until officials had time to assess the hazards to golfers. They determined that, with the exception of the three "canyon areas," the course was playable.

Most damage at DeLaveaga was at the two-story restaurant-pro shop. The restaurant lost glassware and windows. The building moved and cinder-block walls broke.

Superintendent Dean Gump said that while "buildings were hit pretty hard" at Pasatiempo Golf Course in Santa Cruz, damage on the course was not bad. "The irrigation system was perfect," he said, but "we had a half-inch crack in the 17th green that was a foot deep and 10 feet long; and another half-inch crack on the 16th tee."

Gump's crews stripped the sod off the top, packed soil down a foot and put the sod back on — a four-hour job for four people.

The worst damage, he said, was to the golf cart building which moved slightly, causing a practice green on the roof to shift and half of it to drop off. Pasatiempo's pro shop lost the top of a chimney. The restaurant lost three chimneys and there were many drywall cracks. It reopened Nov. 11, he said.

"The whole community was upside down," Gump said, and that was the major reason the course was closed for two days.

Turner, Gump and their colleagues at other Santa Cruz-area courses said irrigation was "the top priority."

Santa Cruz's water supply was hit hard. "We were without water for four days," Gump said. "We

started up our emergency well on the back nine and a water tank for the front nine.

"The toughest thing was that it was 85-88 degrees and the grass really burned up until the electricity returned."

Turner's crew at DeLaveaga used a gas-powered pump normally used to drain bunkers and pumped water into spray tanks from a lake; they then hand-watered the greens.

"That kept us going until late the next day when we isolated the (irrigation system) leaks and got electricity back on," said Turner.

**'The whole community was upside down.'**

— Dean Gump  
Pasatiempo GC

At Saratoga Country Club in San Jose, where electricity was out for four days, superintendent Brian Bagley was faced with an intriguing problem. The course has a gravity-fed sump pump and the sump remained full "but we couldn't pump it out until the generator arrived," he said. "Until it did, we took the spray tank, hooked up a hose and siphoned the water

out of the sump and into garbage cans. We ran two carts in tandem with two cans in each one and watered the greens.

"After the generators came, we were all set."

And at Aptos Seascapes Golf Course just east of Santa Cruz, where there was plenty of water but electricity for two days, superintendent Mike McCraw also said "the biggest problem was worrying about the grass dying."

Otherwise in the San Francisco area the earthquake's damage was hit-or-miss — a random assault.

A spokesman at The Olympic

Club in San Francisco reported, "Absolutely no damage." Another at Sharon Heights Golf and Country Club in San Mateo said there was no damage there.

And a member of the maintenance crew at Palo Alto Hills Country Club said, "We got the heck shook out of the clubhouse and the quake showed a few blemish cracks — that's all."

On the Monterey Peninsula farther south, Pebble Beach, Cypress Point and Spanish Bay golf courses suffered no damage, contending only with loss of electricity for 24

Continued on page 29



This advance generation turf-type perennial ryegrass is setting new standards for quality, color, and performance. Its dark green color, fine leaf texture, and environmental tolerance gives you beautiful and functional results, while its high seed count stretches your grass seed dollar. Use Fiesta II straight or in Futura 2000 where it is blended with Blazer II and Dasher II perennial ryegrasses. A genetically superior combination for perennial turf in the North and overseeding in the South.



Banff is a vigorous dwarf variety that was discovered on the Banff Springs Golf Course in Alberta, Canada. There, Banff survived twenty years of continual heavy watering, repeated attacks from snow mold, and close mowing on a putting green. Just imagine what it could do for you. Banff establishes quickly and forms a disease resistant, cold tolerant, dark green turf.



Since Touchdown's discovery by the late Tom Rewinsky on the National Golf Links of America on Long Island, this elite bluegrass has become the top choice of sod producers. Its aggressive growth habit and rapid establishment crowds out weeds and Poa annua while developing an even, dark green turf.



Mustang is the tall fescue that looks like bluegrass. Its finer texture, darker green color, and wear and drought tolerance have made it the choice for sports field, sod, park, and home lawn use. Mustang is available straight or in TEAM — a three-way turf-type tall fescue blend that also contains Maverick II and Thoroughbred.



Colt is an Oregon produced variety that offers you domestic seed production benefits. It combines superior turf performance and turf quality with genetic adaptation to North American growing conditions. It is dark green, shade tolerant, disease resistant, and very winter hardy. Colt is a vigorous, low-growing variety that has excellent overseeding qualities.



For the fourth consecutive year Victory was the highest rated commercially available chewing fescue in the national Fine Fescue Trials. Victory is a low growing, shade tolerant variety that has possibly the darkest green color of any other chewing fescue. It exhibits superior uniformity and disease resistance, too. If you like picking winners, pick Victory.

## For a varie



# Some courses profited, others hurt from quake

In the Northern California golf industry, "location" took on a new definition in the weeks following the Oct. 17 earthquake. Was your course above Highway 17 — the freeway from San Francisco down to Silicone Valley — or at the end of 17?

If a course was unaffected by Highway 17 traffic, it fared better than normal because golfers couldn't travel the freeway south to the Santa Cruz area courses.

Aptos Seascape Golf Course, just east of Santa Cruz, suffered severely.

"Business is really down," said superintendent Mike McCraw.

"The highway is closed. People from Silicone Valley who get here on Route 17 can't get here. A lot of people have left Santa Cruz. Its beautiful old main street with old brick buildings that withstood the 1906 quake didn't withstand this one. A lot of people are

really hurting. The houses of some of my crew were destroyed."

DeLaveaga Golf Course superintendent D. Campbell Turner said play was down 30 percent at that Santa Cruz course because of the Highway 17 closure.

Dean Gump at Pasatiempo in Santa Cruz said: "The whole community was upside down... No one wanted to come out to play anyway and it was difficult for people to

get over the highway here. The road will be open Thanksgiving."

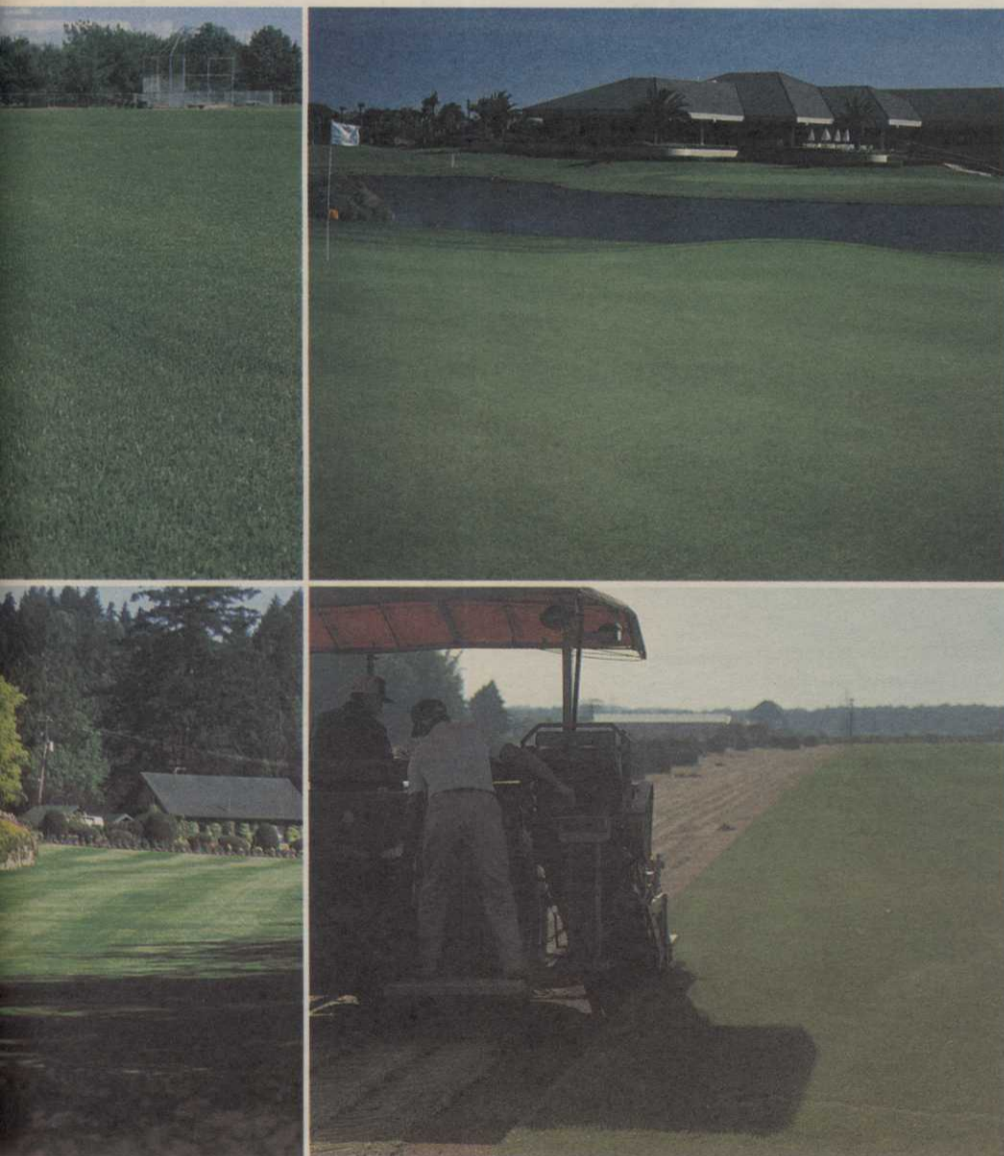
Yet at the other end of Highway 17 the story was different.

"Business has picked up because people can't get to Santa Cruz. It's now a four-hour drive instead of one hour," said superintendent Cliff Rourke at Riverside Golf Course in San Jose. "Our course was open the next day (after the quake). When it hit

people just played out their round. Quakes are not new to this area, though the magnitude of this one was different."

And at Los Altos Hills Golf and Country Club, superintendent Mike Simpson reported that, although the clubhouse was closed a couple of days, members were out on the course the next day "and wondering why there was no detergent in the ball washers."

# ty of reasons.



## CROSSFIRE TURF-TYPE TALL FESCUE

Crossfire turf-type tall fescue is the only strategy you need for battling a summer ambush of heat and drought. Crossfire is a lower and slower growing variety of tall fescue that exhibits a very dark green color. It combines improved heat and drought tolerance with outstanding turf quality to produce a dense and durable turf. Crossfire's high marks in overall performance during its initial evaluation proved it was ready for the field. Let Crossfire show you how to endure a long summer siege.

## SPARTAN HARD FESCUE

Spartan is a robust, advanced generation of hard fescue that is dark green, leafy, and persistent. It demonstrates excellent cold tolerance and creates attractive, low growing, low maintenance turf. Spartan mixes well with perennial ryegrass, Kentucky bluegrass, and other fine fescues. It is an outstanding component in many shady and low maintenance mixes suited for use on home lawns, parks, and golf course roughs.

## AMERICA KENTUCKY BLUEGRASS

America is a low maintenance Kentucky bluegrass that has a dense dwarf growth habit, dark green color, excellent disease resistance, and good shade tolerance. Perfect in mixes, America is ideal for golf course fairways, sod production, playing fields, and home lawns.

Pickseed also produces the following quality turfgrass varieties: Agram chewing fescue, Jasper creeping red fescue, Jazz perennial ryegrass, Alpine Kentucky bluegrass, Exeter colonial bentgrass, and National creeping bentgrass.

Pickseed products are distributed throughout North America by quality seed suppliers.

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For free information circle #128

## Quake

Continued from page 28 hours.

At other effected courses, irrigation systems took the brunt of the quake's damage. Although Los Altos Hills Golf and Country Club sustained a "sizeable split right down the middle" of one green, superintendent Mike Simpson said five breaks in his main line were his greatest concern.

Cracks and splits in the cement pipe system required that sections of pipe were cut out and new ones installed. Four of the breaks were three to four feet down in the ground, but the fifth was 10 to 15 feet below the surface, Simpson said, and it was still being worked on in mid-November.

Superintendent Cliff Rourke at Riverside Golf Course in San Jose said his 35-year-old steel irrigation system sustained a dozen main line breaks.

"It's real brittle and the quake wrinkled it enough to cause a problem," Rourke said.

All the pipes around the greens are PVC, so the damage was confined to fairways, and Rourke said, "The final effect wasn't really so bad because it exposed deteriorations in the system sooner than normal.

"The breaks were three to five feet deep; we dug down and welded them."

Yet a universal case against old irrigation systems could not be made. Aptos Seascape's McCraw reported that his 30-year-old asbestos concrete system "came through with flying colors."

The earthquake had one positive effect in that golf course officials were forced to re-examine their quake preparedness programs if they hadn't already.

DeLaveaga's Turner said a preparedness training seminar was held shortly before the quake hit. "The main thing as far as the course is concerned is that you've just got to react," he said.

When that time came on Oct. 17 it was after 5 p.m. and the DeLaveaga maintenance staff was gone for the day. But the golf course marshal was on hand and he turned off the electricity while someone else turned off the gas — the two vital moves.

Pasatiempo's Gump said, "We make sure everyone knows how to turn off the electricity, gas and water."

## SHORTSTOP TURF-TYPE TALL FESCUE



Shortstop is the little guy with big benefits. As its name implies, Shortstop is a slower and shorter growing variety of turf-type tall fescue. But don't let its stature fool you. Shortstop is plenty tough. It has heat and cold tolerance, disease resistance and is widely adapted. Shortstop forms a beautiful, dense, uniform turf of finer, darker green leaves.

## BRONCO Kentucky Bluegrass

Bronco is a very wide bladed Kentucky bluegrass that was developed specifically as a mix companion for turf-type tall fescue. While its texture and color gives it the appearance of a tall fescue, the comparison between the two ends there. Bronco is elite Kentucky bluegrass all the way. It's been bred to be less dense so it won't crowd out tall fescue and yet still aggressive enough to fill in and repair damaged areas quickly. That's what makes Bronco ideal for sports turf use.

## EQUIPMENT NEWS

### Shuttlecraft being restructured

Golf Cars Ltd's 1990 model of Shuttlecraft golf cars is not yet available because Shuttlecraft, USA Inc., which provides the cars, is undergoing restructuring.

Shuttlecraft General Manager Mike Sjoblom said new models are being developed while the company completes its restructuring plan.

"We are busy working on model improvements," he said. "In our ef-

forts to reorganize the company, we feel confident that we will be able to better position ourselves in this competitive market."

Shuttlecraft recently moved into a new facility in Estherville, Iowa, and plans to enter the electric golf car market.

Jack Pohle of Golf Cars is confident that Shuttlecraft "is here to stay and will continue to improve its fine products."



Brian Chick



George Bennett



Dalton Elmer

### Echo honors distributors, servicemen

Echo Inc. has named Brian Chick of West Sacramento, Calif., as winner of the Master Service

Award, for the second year in a row, and George Bennett and Dalton Elmer as co-winners of the

Outstanding Distributor Manager Award.

Chick, of Golden Eagle Distributing, won the top product service honor for his "outstanding commitment and expertise in all areas of service management including dealer training, warranty management, and supervision of an excellent servicing dealer organization."

Bennett, service manager for Power Tool Co. of Johnson City, Tenn., and Elmer, service manager for Echo Distributing Inc. of Kent, Wash., won their award for demonstrating "outstanding technical expertise and ability to deal effectively with service-related problems, warranty management and dealers and their customers."

Echo Inc. makes and markets two-stroke engines and outdoor power equipment.

# THIS MOWER CHANGED WALKING GREENSMOWER TECHNOLOGY FOREVER.

If you think advances in greensmower technology have leveled off, prepare to take off. The Bunton triplex is not only *new*, it's *better*. We started with fresh ideas and state-of-the-art technology and developed a truly well-engineered machine where every feature produces performance.



## STARTING WITH FRESH IDEAS MEANT THE END TO COMPROMISES.

The Bunton triplex is light on its feet, yet heavy-duty in construction. Until now every greensmower ever built was a compromise designed to keep total machine weight down, to reduce turf compaction, at the expense of heavy-duty construction. Rather than striving to reduce total machine weight, our engineers concerned themselves with the pressure actually transferred to the surface. The result is more durable components that improve cutting performance. That means better greens surfaces... and for a longer time.

## THE SOLUTION TO TRADITIONAL GREENSMOWER PROBLEMS.

We started by putting weight where it does some good. Our larger reel motors and counterweights sit solidly on the playing surface to eliminate bounce and produce a truer, more consistent cut. The unique traction wheel design allows more tire surface area to meet the green, to keep ground surface pressure low. Interchangeable parts keep inventories low and maintenance simple. Better performance results from a true hydrostatic transmission and dynamic braking, welded steel frame construction, extra oil filters, inde-

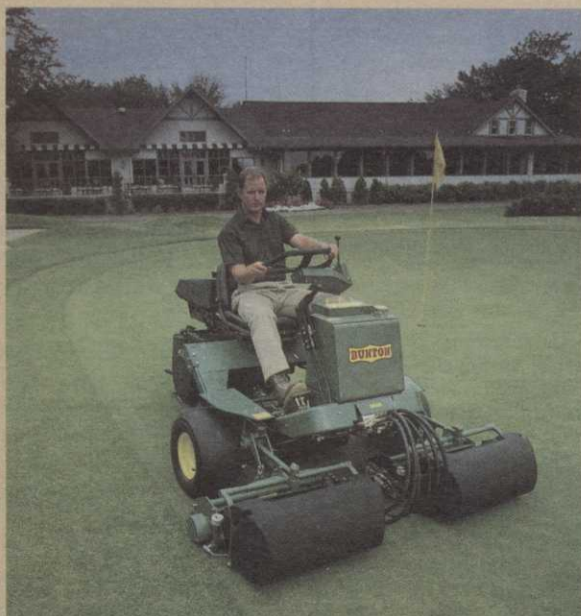
pendent reel operation, standard backlapping, and a powerful 18 hp Onan engine or optional 16.5 hp Kubota diesel.

And if that isn't enough, Bunton offers standard what others have as add-ons. With Bunton, what you demo, is what you get. And at a competitive price.

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# NOW TRIPLEX GREENSMOWERS WILL NEVER BE THE SAME.

For free information circle #123

## Deere unveils replacement parts program

Deere & Co. has announced a new program for its 3,000 dealers who service grounds-care equipment, that will provide a broad line of replacement parts for all makes of outdoor power machines.

The program gives dealers several options. The Kwik-Fix line includes 185 parts and accessories that represent about 95 percent of the items do-it-yourself customers ask for. These are pre-packaged parts that a dealer can display.

The Kwik-Fix line provides such high-volume parts as cutting blades, air filters, mufflers, spark plugs, starter handles and rope, throttle cable, tune-up kits, wheels, and other parts for many different brands of mowing equipment.

John Deere dealers can also stock bulk parts to repair competitive equipment that is taken in trade on a new Deere machine.

"Many customers expect to trade something in when they buy a new mower," said Product Manager Jon Heintzelman. "With this new parts program, dealers can repair used machines for resale. And the pre-packaged parts will attract more do-it-yourselfers to increase store traffic."

## Amigo wins plant variety protection

Northrup King's Medalist Turf Division has announced that Amigo dwarf tall fescue has been granted plant variety protection.

A fine-textured, low-growing plant, Amigo is entered in the National Tall Fescue Turfgrass Trials and rates in the top 10

percentile.

Northrup King reported that Amigo will be commercially available in the fall of 1990.

Contact Northrup King, 7500 Olson Memorial Hwy., Golden Valley, Minn. 55427; 800-445-0956. **Circle No 276**

## Kangaroo granted patent on golfbag cart

Timothy R. Pope and Kangaroo Products of Columbus, N.C., have been granted a patent for the Hillcrest motorized golf bag cart.

The motorcaddy's patent protection will be for 14 years. It was developed with the assistance of Machen Montague Industrial Design of Charlotte, N.C.

## Acclaim approved for bentgrass use

Hoechst-Roussel Agri-Vet Co.'s Acclaim 1EC herbicide has been approved for use on bentgrass. It was already cleared for use on turfgrass, Kentucky bluegrass, peren-

nial ryegrass, fine and tall fescues, annual bluegrass, and zoysiagrass.

It controls crabgrass, goosegrass, barnyardgrass, Foxtail sp., Panicum sp., Johnsongrass and sprangletop.

## Weather-matic adds distributors

Weather-matic, a Dallas-based irrigation equipment manufacturer, has added Wickham Supply of Carrollton, Texas, and United Pipe and Supply, Inc. of Washington as distributors.

Wickham has outlets in Irving, Richardson and Colleyville, Texas. Tacoma-based United Pipe and Supply has outlets in Seattle, Wenatchee and Spokane.

Don Thompson, Weather-matic's director of marketing and sales, said the addition of Wickham and United Pipe "reflects the strategic expansion program currently underway at Weather-matic."

"Our efforts in developing exciting new irrigation products, coupled with aggressive sales and promotional programs, are being recognized and, as individual market growth permits, we will continue expanding distribution through quality distributors across the country," Thompson said.

Additional distributors Weather-matic has recently added around the country include Sprinkler Technics, Salinas, Calif.; O-Tool Plastic Pipe, Inc., Lubbock, Texas; Sprinkler World, Sandy, Utah; and Harward Irrigation, Spanish Fork, Utah.

## The Value of Balance



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Rich Riggs  
Sentry World  
Stevens Point, WI

Thatch reduction helps plants develop larger root systems which results in better water and fertilizer uptake and less plant stress.



### For Thatch Reduction

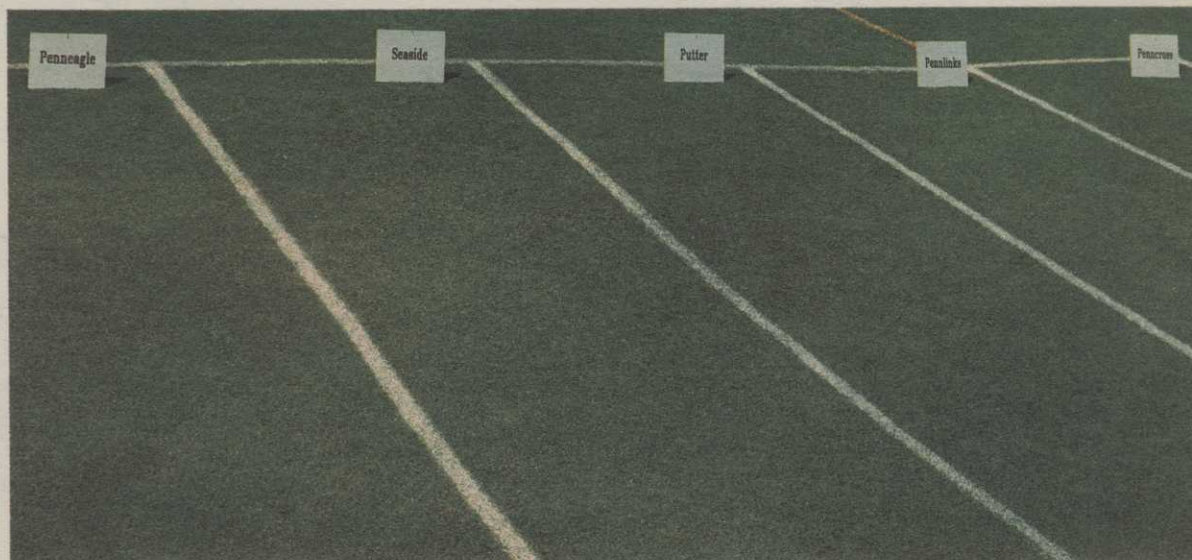
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For free information circle #130

# Putter®



## Creeping bentgrass



Tested side by side with some of the best-known bentgrasses, Putter exhibited superior color and excellent growth habits. Upright growth, and fine, consistent texture, give a true-line putting surface.

## Putter, the world class grass for world class greens.

Putter was developed at the Puyallup Research & Extension Center of Washington State University by Dr. Stan Brauen and Dr. Roy Goss. After years of searching and hundreds of tests looking for a superior creeping bentgrass, Putter finally met Jacklin's criteria for a superior variety.

The rich, dark, bluish-green color is irresistible to every golfer. With excellent turf vigor, fine-leaf texture and improved resistance to take-all patch disease, Putter is exciting news for golf course maintenance staffs. Quality features include a dwarf growth habit and high-shoot density. It's highly aggressive against *Poa annua*.



Note the uniformity of Putter plants in the center row as compared with the wide variants within competing varieties on either side of Putter.



Developed and tested by Dr. Stan Brauen and Dr. Roy Goss, Putter achieved high ratings in overall turf quality in tests for color, density and improved resistance to take-all patch disease at the Western Washington Puyallup Research Station.



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For free information circle #138

## Spill readiness program prepared by PLCAA

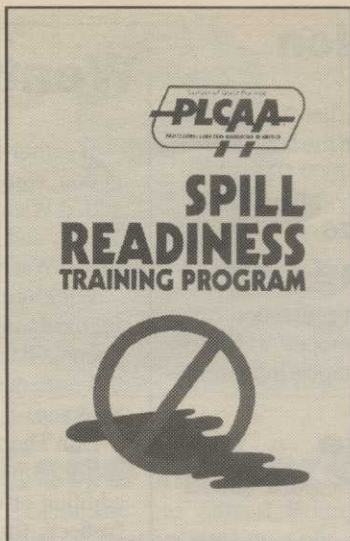
The Professional Lawn Care Association of America is making available a new spill readiness audio training program.

The five-part audio cassette covers areas of interest to owners (spill prevention and the four key components of spill readiness); managers (spill reporting and dealing with the news media); lawn technicians (three emergency priorities and answering questions at the spill scene); office staff (information checklist, finding the boss and handling the media); and as-

sistant manager (spill equipment checklists, containment and cleanup, and answering questions at the spill scene).

The tape is supplemented by a spill readiness guide that includes spill reporting requirements, sample calculations, labeling and inventory recommendations, and a mock spill drill for employees.

To order the program call Victoria at 1-800-458-3466. The cost is \$60 plus shipping and handling for members, \$90 for non-members. **Circle No 241**



## NEW LITERATURE

### Deere puts together safety tips

John Deere has compiled the best 11 of its safety films on one 84-minute 1/2-inch VHS videocassette.

Two programs provide mowing safety information. One segment shows near-miss victim situations and testimonials "to foster a positive safety attitude" for operators. A second segment

shows a father teaching his son safe mowing.

Other programs discuss safety considerations for larger tractors and heavy equipment. One animated segment gives motion to safety signs in order to explain their messages in an entertaining format.

The programs run from 90 seconds to 23 minutes long.

To order a VHS cassette for \$15, write to: Deere & Co., Distribution Service Center, Safety Films Dept., 1400 Thirteenth St., E. Moline, Ill. 61244. **Circle No 353**

# GO-FER . . . VERSATILE TOUGH, AFFORDABLE!



The GO-FER CCD-1000 Multi-purpose Utility Vehicle is an excellent transporter of personnel and equipment up to 1000 lbs. Low to the ground, GO-FER's sturdy tailgate/ramp allows you to easily load such equipment as walk-behind greens mowers. The large-capacity cargo area (46" x 68") makes easy work of most hauling jobs; while the very accessible 7½ h.p. Kawasaki engine and hydrostatic front wheel drive allow for hassle-free maintenance. GO-FER is offered through SALSCO's CCD™ Program at the very affordable price of

## \$2,895.00\*

To obtain complete information about GO-FER call or write:

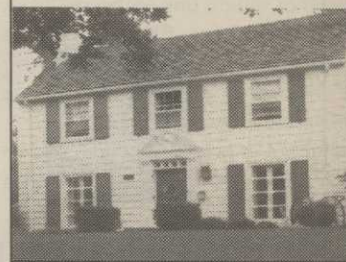
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\*Prices are subject to change without notice; may vary according to area; and do not include such charges as set-up, crating and in-bound freight. Model pictured includes option kit which is an additional charge.

## Lawn Overseeding

How to improve your lawn with thicker growth, better color, and greater resistance to disease and drought.



### Overseeding booklet ready

A new brochure on turf overseeding entitled "Lawn Overseeding" is now available from the Cushman Division of Ransomes.

The pamphlet can be used to promote overseeding and provides information on the why's and wherefore's of overseeding, such as when to overseed, choices for grass types, how to prepare a lawn and recommended equipment.

The 16-page pamphlet includes a glossary of grass and lawn maintenance definitions and can be used by homeowners, lawn maintenance firms and retail stores.

Copies are available in quantity for 10 cents per copy. For information write Lawn Overseeding brochure, Cushman, P.O. Box 82409, Lincoln, Neb., 68501, or call 1-800-228-4444. **Circle No 355**

### Cushman updates Ryan catalog

A new catalog of Ryan aerators and other turf care equipment for the lawn care industry is now available from the Cushman Division of Ransomes.

Included in the brochure are the Lawnaire 28 reciprocating aerator, the Mataway Overseeder, the Ryan Spotseeder, sod cutters, turf rollers and tractor-mounted and towed aerators.

For a free copy of the catalog write the Cushman Sales Department, P.O. Box 82409, Lincoln, Neb., 68501, or call 1-800-228-4444. **Circle No 251**



## Ill health forces Hoffman to resign

Edward L. Hoffman, president of the Club Managers Association of America, recently announced his resignation from the board of directors for health reasons.

Hoffman announced his resignation at the board's Nov. 4 meeting. He will be succeeded by Kenneth W. Brown, CMAA vice president and general manager of the Indianapolis Athletic Club.

Hoffman served as general manager of the Racine Country Club in Racine, Wis., from October 1984 until last July. Prior to this appointment, he was general manager of the Green Acres CC in Northbrook, Ill.

Hoffman joined the CMAA in

1961 and was first elected to the board in 1983. He has been actively involved on various committees including Budget and Finance, P.A.I.R., Research and Publication, Executive Career Service, Insurance and Executive.

Hoffman plans to remain involved in the association's activities and continue in the capacity of chairman for the 1990 annual conference, Jan. 29-Feb. 2 in Orlando, Fla.

## Pebble Beach

Continued from page 17  
history of the course year by year."

### Four unique courses

With Pebble Beach Co. owning and operating four courses (Pebble Beach, Spyglass Hill, Spanish Bay and Old Del Monte) on the Monterey Peninsula, each complementing one another, and providing a unique and different golfing experience to the visitor, maintenance practices must be varied widely to meet the character of each course.

Pebble Beach has a special charisma created by its location and its challenging design, history and accolades. One of its beauties is the rugged seaside character that shouldn't be changed.

Here, while integrating the most modern technical approaches to maintenance and providing the highest quality playing surfaces, course officials are preserving the traditional and natural coastal zestiness that only a seaside course can possess.

Recently Jack Nicklaus was filming a TV special on the course and as he walked up to the bluff on the 8th hole, he was asked by Larry Norman, "How do you like it?" And Nicklaus' answer was simply (with a broad smile), "You're making it too nice."

Pakkala, formerly at Medinah Country Club in Chicago and then the Vintage Club at Indian Wells near Palm Springs, pointed out that "our on-course work will continue to keep the integrity of the original Pebble Beach layout — hole by hole. Those fairways that have been narrowed ever so slightly and contours around the greens (not their surface) that become a bit different over periods of time will be continually brought back to their original state from tee to green."

He added, "We will also be working on major improvements on each of our other courses."

"Pops," a caddie who started caddying at Pebble Beach when he and the course were very, very young, will tell you, "It hasn't changed!"

Frank Pollard is a freelance writer based in Hollister, Calif.

## Scandinavian supers tour U.S.

A group of 90 Scandinavian golf superintendents recently toured several U.S. golf course equipment manufacturing plants and courses.

The superintendents hailed from Denmark, Finland, Norway and Sweden. The group began its tour at the Jacobsen Division of Textron plants in Racine, Wis. and Charlotte, N.C. They also met with local golf course superintendents and questioned them on turf care practices.

The foreign superintendents also visited the University of Minnesota Department of Horticulture before flying to Florida. There they played the Doral Country Club's Gold Course and the New Course at Grand Cypress.

"The purpose of this trip is to educate them on what's being done here in the United States," said Neils-Erik Brems, a representative with ORAG, the European turf equipment sales organization

that sponsored the trip. "They can go back and educate their boards of directors or greens committees on what can be done to improve their courses."

Brems said the popularity of golf continues to grow throughout Scandinavia, with Sweden alone having an estimated 200,000 golfers. The number of courses in Denmark is expected to jump from its present 60 to 100 by the turn of the century.

# SHINDAIWA TEARS THE COMPETITION APART.

Among commercial trimmers, three names dominate the turf. With Shindaiwa, Echo and Green Machine sharing 2/3 of the market.

So, who makes the best trimmer? We do. We proved it. We matched our new Shindaiwa T-27 against the comparable Echo 2501 and the Green Machine 3000 M. We took them apart.

Shindaiwa T-27 Flywheel

And tore them apart in the process.

### A TWO STROKE OF GENIUS.

Our 2-cycle engine delivers more power with less weight than either Green Machine or Echo. Quite a feat, considering we sacrifice nothing in quality along the way. Chrome plated cylinders, 2-ring pistons and electronic ignition are standard. The result is a pro machine with the power to work harder. And last longer.

### NO BAD VIBES.

Shindaiwa trimmers have the finest anti-vibration design in the industry. We pioneered anti-vibe design. Every unit is engineered around the concept of lowest possible vibration to reduce user fatigue. Even our harness is made to absorb vibration. Our T-27 represents our second generation of superior anti-vibe design.

Shindaiwa T-27 Shaft

### YOU WON'T GET SHAFTED BY SHINDAIWA.

Our shaft is 7MM diameter and splined at both ends for easy maintenance. It's also relieved at the engine end for absorbing greater torsional loading. Compare that to Echo's smaller 6MM flex cable. It's the same thing we use on our smallest homeowner flex shaft unit.

### LIGHT IN WEIGHT. BUT NO LIGHTWEIGHT.

Special alloys make our units strong, easy to handle and extremely light weight. But our T-27 still delivers greater horsepower than either Echo or Green Machine.

### SHINDAIWA KNOWS HOW TO COOL IT...

Our flywheel has a larger fin area than either Echo's or Green Machine's. So it delivers excellent cooling under high heat, high load conditions.

### ...BUT WE CAN ALSO TAKE THE HEAT.

Shindaiwa's large insulator block allows for a cooler carburetor temperature and less chance of vapor lock. Others are puny in comparison.

### SHINDAIWA COMES THROUGH IN THE CLUTCH.

Greater horsepower requires a larger clutch. Our two-shoe bonded clutch is larger than either Green Machine's or Echo's. So it has greater contact area. That results in longer life and smoother, positive engagement.

### COME TO GRIPS WITH A SHINDAIWA.

Our T-27 features a suspended front handle grip made of double-density rubber. Compare that to either Green Machine's J-loop handle made of less durable open cell foam or Echo's one-piece grip of hard plastic. You can feel the difference all over your body.

### A PROFESSIONAL APPROACH TO CARBURETORS.

An efficient metal slide-valve TK carburetor allows our T-27 to cut in all directions and deliver precise fuel/air metering throughout the mid RPM ranges where pro trimmers frequently work. It's the same type of carb found on high performance motorcycles.

Shindaiwa T-27 Carburetor

Echo and Green Machine, on the other hand,

offer plastic rotary-valve carburetors designed for homeowner trimmers.

### NOW, HERE'S THE BEST PART:

Every Shindaiwa trimmer is backed by a 7-day money back guarantee. If, after one full week, you're not convinced that our T-27 is the best trimmer you've ever used, we'll buy it back. No questions asked. You can't lose.

### READ ALL ABOUT IT.

Send for free literature that tells our comparison story in full detail. And discover Shindaiwa superiority part by part. You'll never be torn between trimmers again.

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WE SIMPLY MAKE THEM BETTER.

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## NEW PRODUCTS

### Lesco offers turf marking paint

Lesco, Inc has introduced Tournament Turf Marking Paint for golf courses, athletic fields, irrigation and landscape installation and other turf uses.

The new, economical, 16-ounce can provides 33-1/3 percent more paint than competitive brand cans containing 12 ounces.

The Tournament Turf Marking Paint is available in four vivid colors

— white, yellow, red and fluorescent red — in a lead-free formula.

The can fits all standard marking devices and operates in an inverted position.

Lesco is headquartered in Rocky River, Ohio.

For more information, contact Marta E. Geiger, Lesco, Inc. 216 333-9250. **Circle No 350**

### Cushman adds water-cooled engine

Cushman has expanded its line of Cushman Front Line mower models with the addition of two new water-cooled gasoline engine tractors.

Available in both 3-wheel and 4-wheel models, the newest unit features a 4-cycle, 3-cylinder Teledyne-Wisconsin engine that develops 26 hp at 3,600 rpm. The engine has a displacement of 60.88 cubic inches, and develops 44.7 foot-pounds torque at 2,500 rpm.

The model "809" 4-wheel Front Line is equipped with hydraulic power steering and is capable of a zero turning radius, using the



traction assist brake on the inside wheel.

The "808" 3-wheel Front Line has manual steering and can turn in zero radius for maneuverability. Outside turning circle is 150 inches when the tractor is equipped with the 72-inch mower deck. Mower decks and other attachments are driven through a heavy-duty OMC-built PTO clutch.

A warning horn signals the operator in the event coolant temperature should ever rise above safe levels. An automatic seat switch shuts down the engine if the operator should leave the seat with the PTO engaged.

Contact: Cushman, P. O. Box 82409, Lincoln, Neb. 68501; 800-228-4444. **Circle No 302**

## Having trouble getting bentgrass?

# Try Jamestown

Chewings Fescue

It's no secret that bentgrasses are in short supply. It's hard to get enough creeping bentgrass.

But there is a solution: Jamestown chewings fescue! After all, chewings fescue has been used on golf courses for over three centuries. And there's none better than Jamestown. It's been proven in tests at the University of Rhode Island and on prominent courses for more than 20 years.

#### For new greens

Cut your bentgrass needs in half by using a mix which is 50% Jamestown and 50% bentgrass by seed weight. Not only will this match the performance of a solid bent, but will give some added benefits as well.

Jamestown establishes quickly and puts the greens into play faster. It will perform as a companion grass for up to 10 years as the bentgrass matures and gradually dominates the turf.

#### For repairs

Use 3-4 pounds of Jamestown with 1/2 lb. of bentgrass per 1000 square feet. This mixture has proven very effective in emergency repair of damaged greens.

#### For winter overseeding

Consider Jamestown as part of a mix for overseeding southern Bermudagrass greens, tees and lawns. Jamestown will enhance turf performance during winter months.

So whether it's to help out with a bentgrass shortage, or add benefits to your overseeding program, try Jamestown chewings fescue.

*Jamestown chewings fescue played a big part in developing The Links at Spanish Bay in Monterey, CA:*

*Greens: 80% Jamestown, 20% Colonial bentgrass*

*Tees: 100% Jamestown*

*Fairways: Blend of chewings fescue including Jamestown*

*Roughs: Mixture of fescues including Jamestown chewings, Reliant hard, sheep and creeping red.*



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To locate the Lofts' distributor nearest you, call  
(800) 526-3890 (Eastern U.S.) • (800) 547-4063 (Western U.S.)

For free information circle #135

### Moisture-Stat eliminates over-watering

The Moisture-Stat line from Griswold Controls adds moisture sensing and monitoring capability to any existing electro-mechanical or solid state controller to eliminate over-watering. Moisture-Stat allows watering to occur only when it's needed.

The system consists of a control panel with moisture level indication, adjustment and by-pass provisions along with four sets of special stainless steel probes. Each valve zone can be assigned to a set of probes.

Moisture-Stat II offers a convenient front-panel display that keeps track of the percentage of water saved. The system pays for itself in a few short months.

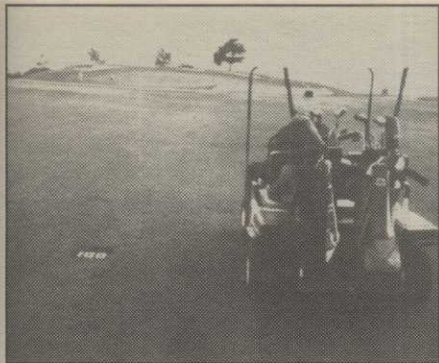
For more information, contact: Marketing Department, Griswold Controls, 2803 Barranca Road, Irvine, CA 92714; 714-559-6008. **Circle No 349**

### Course Cover controls erosion

Course Cover, a new line of erosion control/revegetation products for the professional turf manager has been introduced by North American Green.

Course Cover includes a line of four products designed to control erosion on both slopes and in drainage channels. The blankets reduce rainfall impact, reduce velocity of run-off water, and transportation of soil particles. Sewn together between two polypropylene nets, the blankets stay in place until a vegetative cover is established.

Write or call North American Green 1-800-772-2040 or in Indiana 812-867-6632. **Circle No 335**



### Toro's 224 enters gas-power market

After introducing the company's Groundsmaster 220-O diesel trim mower, Toro found that some users preferred gas-powered mowers. The new 224 is Toro's response.

Customers had noted that groundskeepers' current key need was for a compact trim mower that combined maneuverability and high productivity with comfort and servicing ease.

The 224 features a three-cylinder, liquid-cooled Mitsubishi GL3C engine that delivers 24 horsepower. It is a gasoline conversion of the 220-O's L3C diesel engine.

The 224 offers more horsepower than the diesel version's 20.5 because gasoline has a higher energy content than diesel fuel.

Groundsmaster mowers maintain opera-



tor comfort and improve handling ease by using a new power-assisted, four-link steering design.

Contact The Toro Co., Commercial Division/Marketing Services, 8111 Lyndale Avenue South, Minneapolis, Minn. 55420. **Circle No 303**

### Clarke introduces trash pumps

A new line of trash pumps with quick access to the impeller, volute and casing for cleaning and maintenance has been introduced by Clarke Power Products.

The self-priming, centrifugal trash pumps are available in 2-, 3- and 4-inch sizes.

Clarke says the pumps are ideal for water that contains compounds often found in agriculture and construction applications. The pumps have a steel frame and overall lightweight, compact design for easy handling and moving to and from job sites.

To achieve maximum fuel efficiency, the 2- and 3-inch pumps use Honda engines and the 4-inch pumps feature Robin engines.

Contact Craig Valentine, Clarke Power Products, P.O. Box 391, Bowling Green, Ohio 43402; 1-800-227-9603. **Circle No 268**

### Golf 2000's yard markers speed up play

Visualize a course with the grass uninterrupted by concrete or asphalt, where play is faster because cart paths follow the fairway and where the yardages are clearly marked.

Golf2000 Corp. of San Diego, Calif., offers two new products which help to speed up play. Their interlocking pavers protect turf and are used to construct cart paths in the fairway. Their 5-by 10-inch yardage markers lie flush with the fairway and are easily visible.

Placed at 10-yard intervals in the center or at the sides of the fairway, the markers allow golfers to quickly determine the yardage, hit fewer misclubbed shots and help realize when it is safe to shoot to an occupied green.

Since golf balls bounce normally off of the pavers and yardage markers they do not materially alter the game.

The pavers and yardage markers do not violate the rules of golf and are covered under USGA Rule 24-2

Contact Golf 2000 Corp., 9842 Hibert St., Suite 257, San Diego, CA 92131; 619-566-6189. **Circle No 341**



### Turbo Shredder said 'revolutionary'

Excel Industries has introduced what it calls a "revolutionary" new Turbo Shredder mower deck that chops grass clippings into fine particles that return to the soil surface easier and faster than is possible with standard mower designs. The shredding action of the Turbo Shredder improves decomposition of the clippings and returns valuable nutrients to the soil.

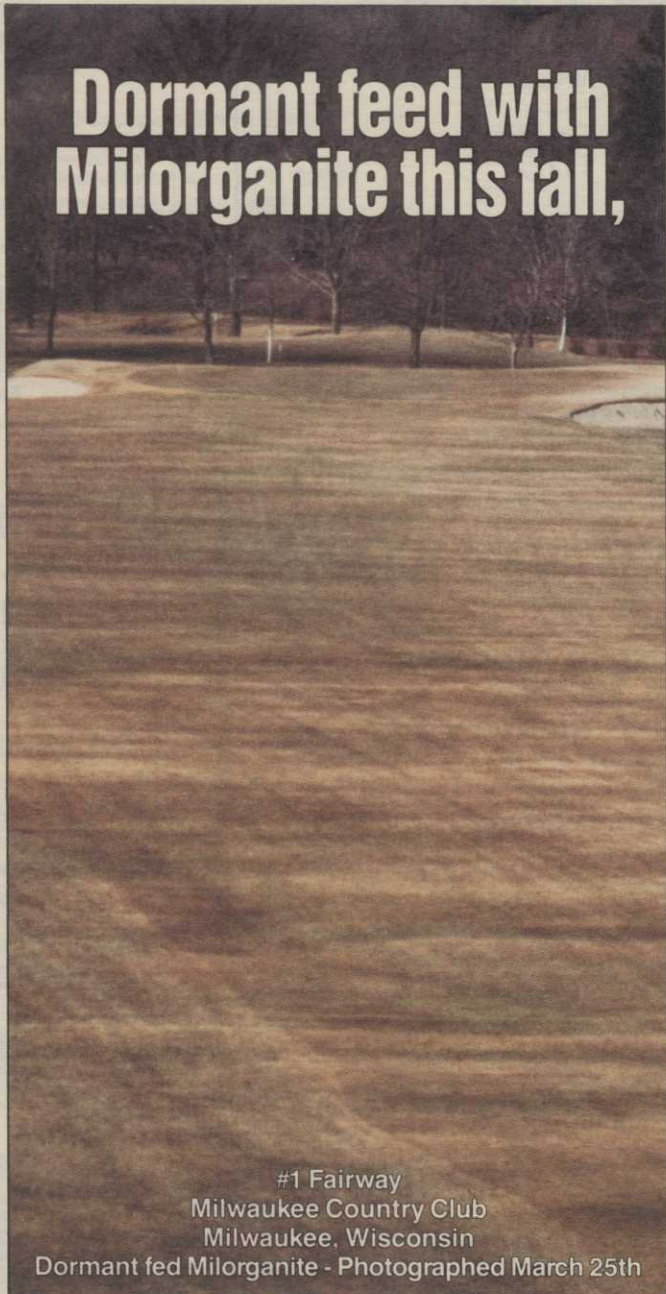
The eight-blade design of the Turbo Shredder™ eliminates clogging and increases the airflow for better dispersal of clippings. When shredded grass clippings are collected in the eight-bushel BAC-PAC™ grass catcher, less air is trapped in the catcher so the grass is packed more densely.

Development of the Turbo Shredder deck was prompted by the need for an environmentally safe way to dispose of grass clippings without the use of plastic bags.

The Turbo Shredder 51-inch deck will be standard on all Hustler 251K models beginning in late July, 1989. The 251K is an 18 hp dual hydrostatic mower that provides the ultimate in maneuverability and true zero radius turning.

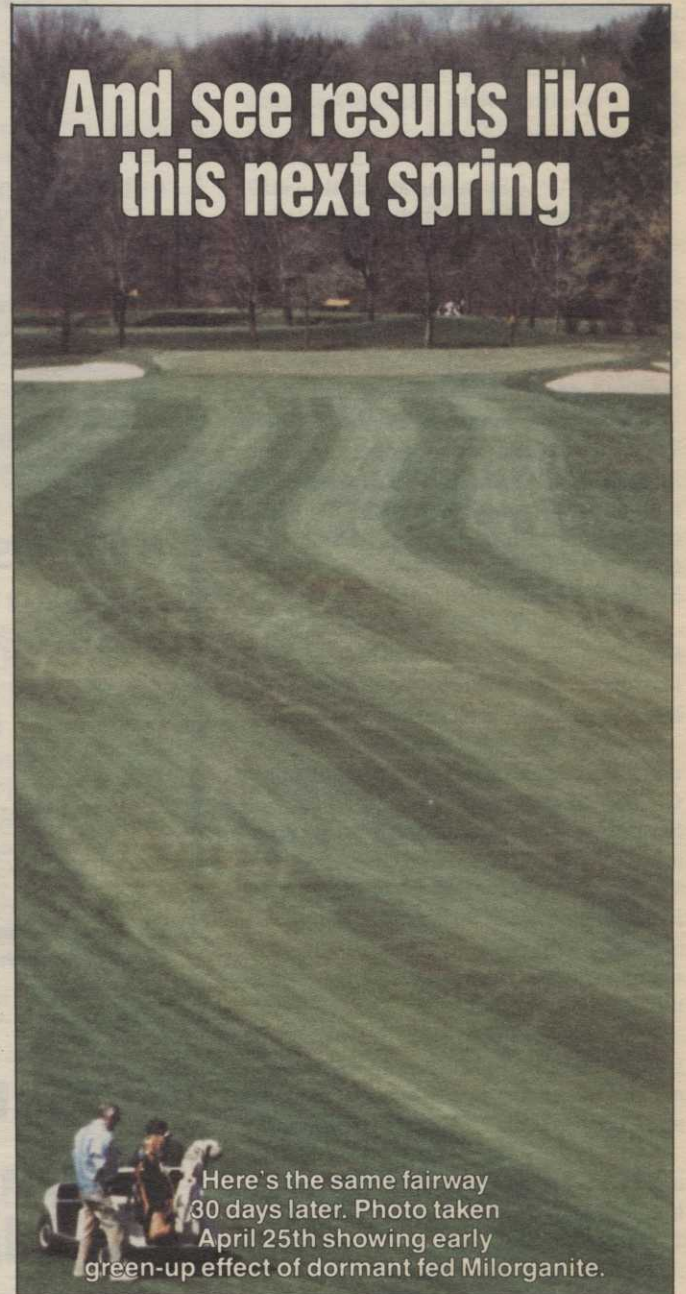
For more information contact: Excel Industries, Inc. P.O. Box 7000, Hesston, KS 67062-2097; 1-800-835-3260. **Circle No 319**

## Dormant feed with Milorganite this fall,



#1 Fairway  
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Here's the same fairway 30 days later. Photo taken April 25th showing early green-up effect of dormant fed Milorganite.

### Why Dormant Feed Milorganite?

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You'll save time and money. Apply Milorganite in late fall for efficient labor and nutrient use. More time is available for you and your staff in late fall, and spring time crunches will be avoided when you dormant feed Milorganite.

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spring green-up without excessive growth, with the iron content carrying the rich color well into the heat of summer.

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# CALENDAR

## December

4-7 — Ohio Turfgrass Conference and Show, sponsored by the Ohio Turfgrass Foundation and featuring more than 200 exhibitors as well as lectures, at the Ohio Center in Columbus. Contact Phyllis Poureh, Ohio Turfgrass Foundation, 2021 Coffey Road, Columbus, Ohio 43210; 614-292-2601.

4-7 — New Jersey Turfgrass Expo '89, the Annual Turfgrass Educational Conference and Trade Show, sponsored by the Rutgers Cooperative Extension in cooperation with Cook College-Rutgers University and the New Jersey Turfgrass Association, at Resorts International Hotel in Atlantic City, N.J. Contact Dr. Henry W. Indyk, Crop Science Department, P.O. Box 231, Cook College, New Brunswick, N.J. 08903; 201-932-9453.

5-6 — GCSAA seminar on Public Relations and Public Speaking at Atlanta, Ga. \*

5-7 — Pacific Coast Turf and Landscape Conference and Trade Show at Washington State Convention and Trade Center in Seattle, Wash., including talks by national and regional experts on plant diseases, toxic waste disposal, ground-water contamination and use of pesticides and fertilizers. The event is sponsored by the Western Washington Golf Course Superintendents Association, Washington State University and Jones and Associates. For further information contact Jones and Associates, Park Center, Suite 200, N. 908 Howard St., Spokane, Wash. 99201; 509-327-5904.

8-9 — GCSAA seminars on Golf Course Construction Techniques and Management and on Golf Course Restoration, Renovation and Construction Projects at Tuxedo, N.Y. \*

10-13 — The 41st Turfgrass Conference and Show at Metro Toronto Convention Centre, sponsored by the Canadian Golf Superintendents Association. Further information is available from CGSA at 2000 Weston Road, Suite 203, Weston, Ontario M9N 1X3; 416-249-7304.

11-12 — GCSAA seminar on Business Communication and Assertiveness Techniques at New Orleans, La. \*

11-12 — GCSAA seminars on Golf Course Construction Techniques and Management and on Golf Course Restoration, Renovation and Construction Projects at Tuxedo, N.Y. \*

14-15 — GCSAA seminar on Basic Principles of Turfgrass Management at Albuquerque, N.M. \*

## January

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

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

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.

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

10 — GCSAA seminar on Safe Pesticide  
*Continued on page 37*

# Golf Course

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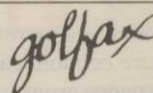
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Continued from page 36

Management at Raleigh, N.C. \*

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

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.

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

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

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.

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

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. \*

24-26 — 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 — GCSAA seminar on Plant Nutrition and Fertilizers at Portland, Maine. \*

### February

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.

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

### March

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

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

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

### April

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

### September

4-6 — Sports & Leisure World Trade Exhibition at the East of England Showground in Peterborough, Cambridgeshire, England. Call Institute of Groundsmanship, ; telephone 0908-312511.

\* — 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.

# UTEC finds 2nd home for second-hand equipment

BY PETER BLAIS

Bill Barnette has taken a page out of the used car shopping guides that line supermarket checkout magazine racks to successfully market used turf equipment.

The South Florida businessman publishes a bi-monthly newsletter that includes pictures and prices of everything from used mowers to irrigation systems that are collecting dust in golf course maintenance sheds.

The newsletter serves the dual purpose of allowing superintendents to sell old equipment while giving others the chance to buy good, used equipment they may not be able to afford new.

Barnette estimates he has brokered approximately 200 pieces of equipment worth more than \$125,000 since Used Turf Equipment Co. published its first newsletter in March from its Hobe Sound headquarters.

"It's been very well received by the superintendents," said Barnette.

"We'll list around \$40,000 worth of equipment with Bill this year," said Tim Hiers, head superintendent at the 54-hole John's Island Country Club complex in Vero Beach.

"Before, I had to spend a lot of time on the phone finding buyers and advertising our used equipment. So Bill's service has been a great help to me. It allows me to spend that time doing other things around here."

The idea for a used equipment clearing house came to Barnette while he was working as a new equipment salesman in Palm Beach County.



Bill Barnette

"I kept seeing this perfectly good equipment that wasn't being used at a lot of the better courses. Then I'd talk to another superintendent who said he'd buy a used piece of equipment if he could find it," he remembered.

Knowing he was on to something, Barnette bought a truck, trailer, mobile phone and camera. He began visiting superintendents, getting an inventory, price desired and condition of their used equipment. He also took pictures.

Flyers were published and distributed to the 400 superintendents in Palm Beach, St. Lucie, Martin and Indian River counties.

"That's basically the area where I was working. Those are the people I know," explained Barnette.

Barnette knew from his own sales experi-

# ON THE GREEN

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ence that equipment salesmen are very hesitant to handle used equipment.

"It doesn't take a genius to figure out you're not going to get much from a distributor if you try to trade your equipment in," agreed Hiers. "Turf equipment distributors just don't want to handle used equipment."

Barnette also knew from a previous position as division director of maintenance for South Florida Water Co. that much of this used equipment was perfectly useable and saleable.

There are several reasons extra used equipment is often available, according to Barnette.

Finding equipment he is unfamiliar with, a new superintendent will often phase out the inherited equipment and replace it with his favorites.

A superintendent at a more affluent course may find it more economical to institute a routine maintenance program that replaces old equipment every two to four years.

"We have an active preventive maintenance program here that allows us to turn our equipment over while it still has useful life," said John's Island CC's Hiers.

Specialization and technological advances can also make a certain specialized piece of equipment obsolete within a few years after its purchase.

With the high cost of new equipment, buying used may be the only way to fit a piece of equipment into a superintendent's budget.

Used equipment is also very attractive at brand new courses where sand can wreak havoc on new equipment.

"An experienced superintendent will often use used equipment on a new course. I've seen brand new equipment degenerate in four to five months on a new course. You shouldn't buy new until you have the sand under control," said Hiers.

Among the bigger items Barnette has brokered was a seven-gang fairway unit.

"It sold for \$12,000. It would have gone for about \$60,000 new. It went to a golf course with a limited budget that the superintendent was trying to stretch. It should be good for at least another four to five years. The course that sold it was more established and just wanted to rotate out some equipment on a routine basis. It worked out well for both," said Barnette.

Barnette's broker fee ranges from 10 to 30 percent, depending on the asking price, with a minimum fee of \$100. Sales have included everything from a \$22,500 almost-new fairway mower to a \$300 sod cutter.

There is no shipping fee for sales within a 50-mile radius of the Palm Beach and Treasure Coast area. The charge beyond that is \$1.50 per mile.

The four-county area is providing Barnette with all the business he personally can handle. Still he would like to expand his business throughout Florida by enlisting a series of brokers familiar with turf management equipment who would develop flyers and work their own areas.

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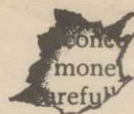
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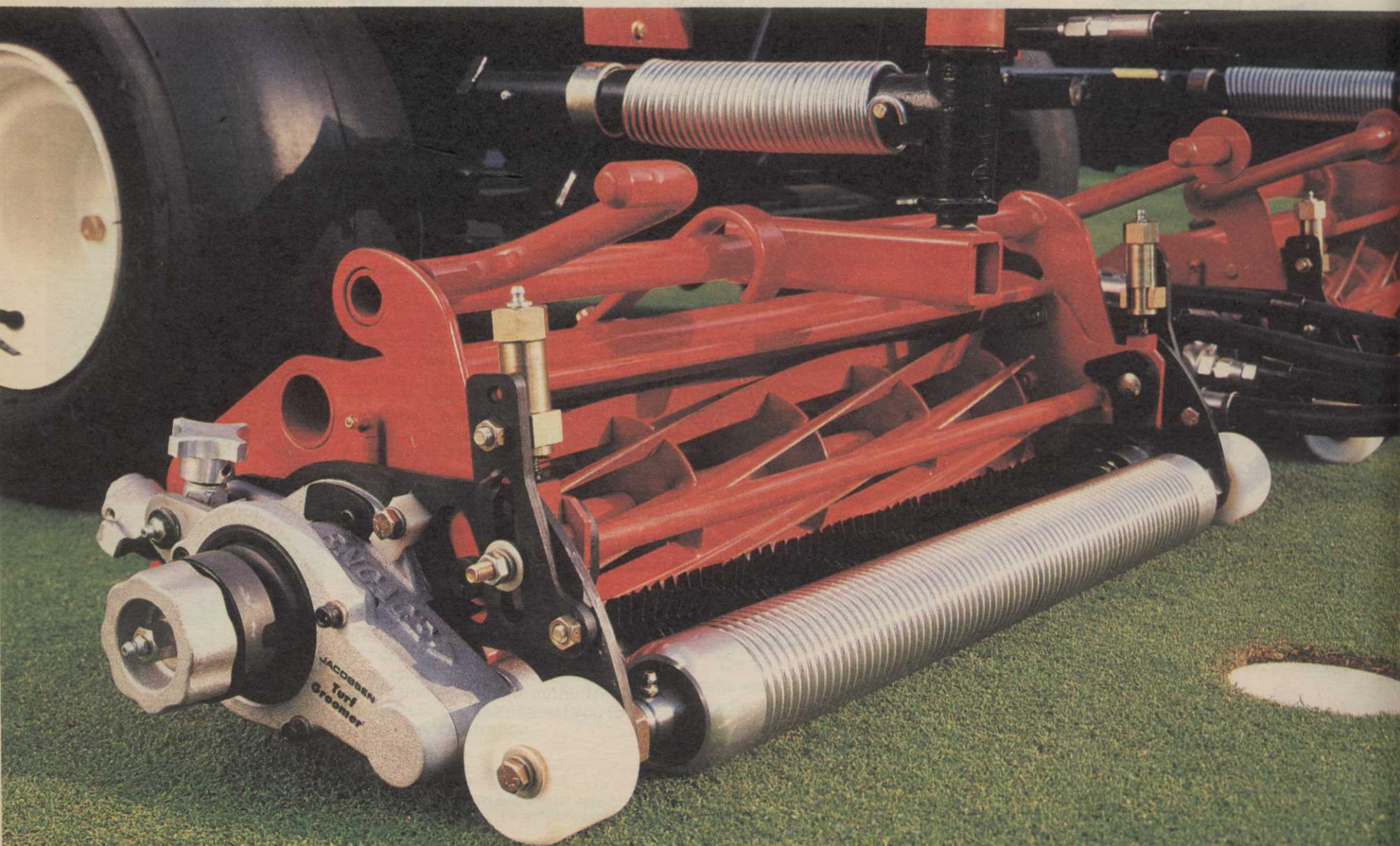
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