

GOLF COURSE NEWS

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INSIDE

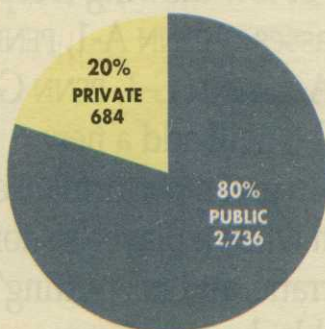
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Yes. A sure-fire folk remedy that works wonders on your pond algae 18

TOTAL GOLF COURSE OPENINGS BY TYPE: 1986-1996



Source: National Golf Foundation

PUBLIC GOLF ROLLS ON

After 1990, new golf course openings began to pick up steam. Public golf, specifically daily-fee golf, contributed most to the upsurge in golf course development. See page 3 for more stats on the growing public golf arena.

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Toro, G&H ready for day in court

By M. LEVANS

BLOOMINGTON, Minn./LOS ANGELES — The battle between the Toro Company and Grizzle & Hunter Plastic Inc. — which has raged since December 1995 — will be tried by a jury on September 23.

Through the trial, Toro is seeking an injunction against Grizzle & Hunter that would permanently bar the manufacturer from producing its Bear Irrigation replacement sprinkler products.

In December 1995, Toro accused Grizzle & Hunter's top executives of stealing trade secrets related to the sprinkler conversion assembly — the guts of the sprinkler head. Grizzle & Hunter, a company spearheaded by Glendale Grizzle, an ex-Toro employee of 28 years, has been marketing a univer-

sal conversion assembly that can replace worn out Toro and Rain Bird sprinkler assemblies.

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COMING HOME

The 9th and 18th greens at Greystone Golf Club in Walworth, N.Y. This Craig Schreiner creation opened in June. See Q&A page 33.

Widow's Walk places environment first

By MARK LESLIE

SCITUATE, Mass. — When Palmer Course Design Co. finishes rebuilding The Presidio in San Francisco, the country will be bracketed by its first two "environmental demonstration project" golf courses. The first, Widow's Walk Golf Course, located on an old gravel pit and dump site in this coastal Massachusetts community, opened for play on June 28, to the delight of

golfers and environmentalists alike.

"I don't think any golf course has had more publicity than this one. That's because of what it is and

what it represents," said Dr. Michael Hurdzan who, with lead designer Bill Kerman and input from various environmental

Continued on page 23

Casper to keynote Public Golf Forum

By M. LESLIE

OAK BROOK HILLS, Ill. — Hall of Fame golfer Billy Casper, who has followed his playing career by operating golf course design and management companies, will keynote the 1997 Public Golf Forum here on Oct. 27.

The only national conference and show targeted to the owners, managers, developers and superintendents of public-access golf facilities, the *Golf Course News*-sponsored Public Golf Forum will be held Oct. 27-28 at Oak Brook Hills

Continued on page 50



The legendary Billy Casper

Whitbread takes lead

By PETER BLAIS

WARWICKSHIRE, England — This fall the European golfing community will turn its eyes to Whitbread Hotel Co.'s Marriott Forest of Arden Hotel & Country Club, site of the final European Tour stop before this September's much-anticipated Ryder Cup.

"We're hoping a number of the European team players will play in the One 2 One British Masters," said Whitbread Marketing Director Janet Matthews.

While the golfing public's attention will be fixed on the Warwickshire facility this September, the golf industry's gaze has turned with increasing

Continued on page 43



A FINE FINISH

Kyle Phillips liked this course so much he moved there. The 18th at Granite Bay (Calif.) Golf Club is an example of Phillips' work with RTJII. See story on Phillips' new solo career, page 33.

**'Penn Pals' On Parade:
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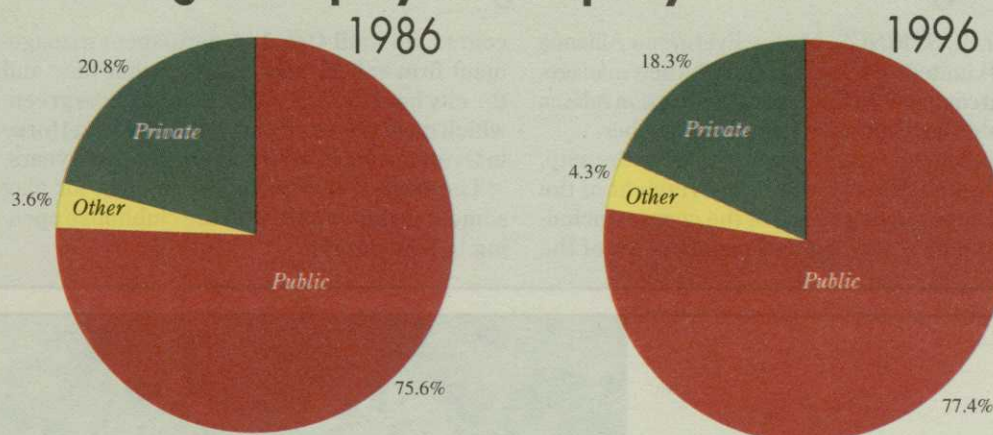


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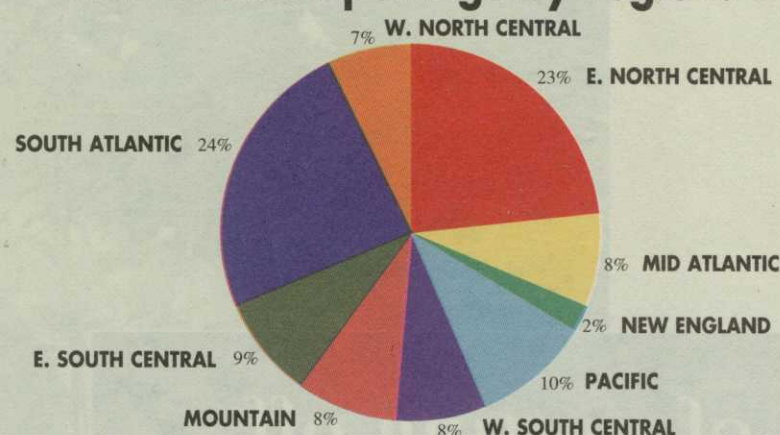
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Where golfers play the majority of their rounds



Golf course openings by region: 1996



PUBLIC GOLF GROWING

The two top graphs (provided by the National Golf Foundation) show that the percentage of rounds played by U.S. golfers at public courses grew from 75.6 percent in 1986 to 77.4 percent in 1996. Eleven years ago, according to the NGF, private golfers made up more than 20 percent of the golfer population. By 1996, their percentage had dropped to just above 18 percent as public golf continued to gain ground into what was once mostly a private game. The total number of private golfers grew a modest 9.4 percent during that 11-year period, while public golfers grew by more than 27 percent. The bottom graph shows that nearly half the 1996 total course openings occurred in either the South Atlantic (24 percent) or East North Central (23 percent) regions of the country. The East North Central region should continue to experience strong levels of golf course development activity as the region strives to meet well established and growing demand, the NGF reports.

Source: National Golf Foundation's "Trends in the Golf Industry: 1986-1996"

BRIEFS

ROBINSONVILLE, Miss. — Grand Casino Tunica has hired Hale Irwin to design an 18-hole championship golf course here. The \$18 million course is scheduled to open in spring 1998. Grand Tunica is the closest of the nine Tunica County casinos to Memphis, Tenn. The 7,000-yard course will be a daily-fee facility and is located directly across the levee from the 340,000-square-foot casino complex on U.S. Highway 61.

LONGMONT, Colo. — The public, 18-hole Haystack Mountain Golf Course recently unveiled the fruits of a renovation. The facility's driving range has been doubled and reworked to include target greens and it is now lighted. A new ninth hole also opened last month. The clubhouse was also completely remodeled with a fresh food deli and full-service bar.

MOBILE, Ala. — City officials are looking into building a new nine-hole course as part of a proposed recreation site near the Mobile Infirmary Medical Center overlooking Three Mile Creek. If it does get built, the new course would be sited not far from what used to be the Oak Hills Country Club, a public course that later became a private country club and existed from 1933 to 1949.

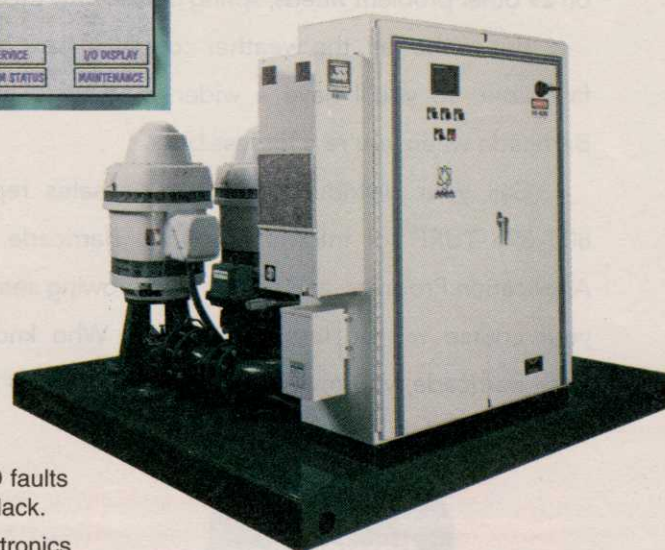
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Nebraska state park course ready for play after four-year journey

PONCA, Neb. — It took four-plus years, tens of thousands of hours of volunteer labor, and individual contributions totaling \$461,000, but the nine-hole Highland Oaks Golf Course in Ponca State Park in northeast Nebraska is finally complete.

The course, built at no cost to taxpayers, is located on a leased 70-acre site in Ponca State Park two miles north of town and has a three-story, cathedral-like, 25,000-square-foot clubhouse. The course opened for play two years ago, but the clubhouse was just finished earlier this summer and the facility was recognized with a visit from Nebraska Governor Ben Nelson. It is the second course in Nebraska to be built on state park land. The other is Legend Buttes, located between Crawford and Fort Robinson State Historical Park.

Highland Oaks was a community project from the beginning. Volunteers helped install 17 miles of a double-row, underground irrigation system and built a 1.5-acre dam and lake for a rural water system to serve the course and the homes springing up between it and town. Volunteers also seeded the course, tilled the greens, built a 30-by-150-foot storage and utility building, built a septic tank system and even designed the clubhouse.

Golf course builder Marty

Johnson of South Sioux City, Neb., helped design and construct fairways, greens and tees. The course is set amidst the rolling hills and old stands of oak and ash trees at Ponca State Park and offers panoramic views of the Missouri River.

Evergreen takes over management of Missouri muni

BLUE SPRINGS, Mo. — Evergreen Alliance Golf Limited of Irving, Texas, is the new management company for the under-construction Adams Pointe Golf Club — at least until October.

According to an agreement with the city, Evergreen Alliance will have oversight of the final construction phase of the course, including the final seeding and maintenance of the

course, up until Oct. 1. A permanent management firm will be announced at that time and the city has expressed that it hopes Evergreen, which manages courses such as the Iron Horse in Overland Park, would stay on for three years.

The course is expected to be open for play sometime this month, with the clubhouse opening in September.



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Tenn. state parks to pay \$10,000 for wetlands violation

HENDERSON, Tenn. — The state of Tennessee will pay a \$10,000 fine and return more than 100 acres of swamp to nature as part of a proposed settlement for illegally destroying wetlands during the construction of a Jack Nicklaus-designed course at Chickasaw State Park in Chester County, about 75 miles

east of Memphis.

The settlement was issued in an administrative complaint and consent agreement from the U.S. Environmental Protection Agency and agreed to by Tennessee Department of Environment and Conservation Commissioner



Milton Hamilton. The deal is expected to help resolve months of turmoil over the state of Tennessee's efforts to build the Nicklaus course in Chickasaw State Park, one of four Jack Nicklaus courses the state plans to build at state parks across the state.

According to the EPA and other agencies, Golf Services Group, a Houston-based management and development group contracted by the state, cleared and filled 14.21 acres of wetlands without a federal Clean Water Act permit. State officials have said the damage resulted from an oversight.

Smokey Mtns. home to new golf course

GREENEVILLE, Tenn. — The new 18-hole River Trace Golf Course in Greeneville has risen in the shadows of the Smoky Mountains on land that once held the nine-hole Nolichucky Golf Course.

Four original holes from the old Nolichucky layout, with some modifications, have been joined by 14 new holes to make the new 18-hole, daily-fee facility.

The new holes at the 6,085-yard layout were designed by an associate of the Larry Nelson group. Construction was done by Dave Stewart of Graysburg Hills in Chuckey.

AGC moves to Virginia Beach

VIRGINIA BEACH, Va. — American Golf Corp. is moving its northeast regional headquarters from Maumee, Ohio, to Virginia Beach.

"One of the prime reasons we're doing this is the growth cooperative in golf the various municipalities are projecting," Mark Tansey, American Golf's regional marketing and sales director, told *The Virginian-Pilot*. "We've heard about it, studied it, and we think we're going to pull it off. We want to be part of it."

American Golf's move comes at a time when the Virginia Beach area is buzzing with golf news. Local officials have said they would like to see the area become a top-notch golf and resort destination and would like to see more high-end golf courses built. A group of angry citizens in Virginia Beach has also been pushing for that city to privatize its municipal courses. American Golf Corp. manages four courses in Virginia.

MINN. LAYOUT A FAMILY AFFAIR

BRAINERD, Minn. — The new nine-hole Crosslake Golf Course is a family venture. Jack Stone, owner of the Crosslake Golf facility which already had an executive course, financed the building of the nine-hole regulation layout. His son Mike designed the course and managed construction. Crosslake opened for play recently. The Stones plan to add three more holes to Crosslake's executive course next year.



Oklahoma City facility geared to perfecting game

OKLAHOMA CITY — The new Traditions Golf Club is being built on the idea that practice makes perfect.

The 149-acre complex, which is scheduled to open Nov. 1, will feature:

- A 4,500-yard, par-60, 18-hole course with six par-4s and 12 par-3s. The par-4s average 350

yards, the par-3s average 180 yards.

- A nine-hole "wee course" with shots ranging from 20 to 60 yards.

- A 250-acre driving range that is 340 yards long and 250 yards wide with a three-tiered tee area.

- Four massive putting greens totaling two acres, an idea pat-

terned after the putting course at St. Andrews in Scotland.

- A 4,800-square-foot clubhouse where golfers can have their swing analyzed, browse golf books, take clinics on rules and etiquette, be fitted for golf clubs, have their clubs repaired, and track their progress in a database.

- A residential district for 107 homes.

John Rooney is chief executive officer of Traditions. Rooney, a regents professor emeritus of geography at Oklahoma State, has been a pioneer in the geographic analysis of sport and has authored several books on the subject. The Traditions was designed by Ray Hearn and Jerry Matthews.

Davis set to open addition at Okla. layout

KINGFISHER, Okla. — A nine-hole addition to the Kingfisher Golf Course is expected to open by late fall. The new layout was designed by Mike Gogel, a design associate for Tripp Davis and Associates, a Norman, Okla.-based firm.

The nine-hole addition was built on a former wheat field. Bulldozers and graders moved more than 60,000 yards of dirt around the formerly flat 781-acre site, creating gentle slopes and contours. The new nine sits directly south of the Kingfisher's existing nine-hole course, which was built in the mid-1960s east of town on Highway 33. The city purchased the land for the addition several years ago, when it became apparent the town had outgrown the present facility.

A private group, the Kingfisher Golf Association, borrowed \$300,000 to pay for most of the construction costs. City workers and volunteers provided labor for the addition, including installing a computerized watering system that uses an on-site irrigation pond.



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CIRCLE #130

Fla. man dies while chipping wood near links

BOCA RATON, Fla. — A tree service employee was accidentally killed earlier this summer on the grounds of the Camino Del Mar Country Club in west Boca Raton while operating a large wood chipping machine. The man was working on the 17th hole when he was pulled into the wood chipping machine and killed instantly.

Police told *The News* of Boca Raton that the 53-year-old man, who was an employee of Twin Tree Service of Parkland, Fla., was feeding palm fronds into an approximately 8-foot-wide machine and was working alone at the time of the accident.

A foreman for the Twin Tree Service told police he was part of a crew of three men working in the area. Police said the victim may have been pulled into the machine when he was feeding leaves or dislodging debris.

GOLF COURSE NEWS

Dispute may split Houston course into two nine-hole tracks

HOUSTON — A dispute between a concessionaire and the city of Bellaire may split the municipal 18-hole Houston Hills course into two nine-hole layouts. One would be overseen by Bellaire and its selected operator and the other by the city of West University Place.

John Pape, city manager for Bellaire, told the *Houston Chronicle*, "Our portion can be effectively utilized as a nine-hole course. We are

prepared to operate it that way."

The potential split was prompted by a lawsuit filed earlier this summer against Bellaire by Houston Hills Corp., the company that manages the course for both Bellaire and West University Place. It accuses the city of breaking its contract and civil fraud. But Bellaire officials say the company has not followed through on certain aspects of its agreement.

Shell buys Corpus Christi facility

CORPUS CHRISTI, Texas — A group of investors headed by Shell Land Management Co. Inc. have bought the Kings Crossing Golf & Country Club as well as the surrounding residential community.

Shell Land, which has several other properties on the Southside and along Saratoga

Boulevard, bought the approximately 865-acre far-Southside golf course community for an undisclosed price.

The country club will still be called Kings Crossing Golf & Country Club, according to Ben B. Wallace, president of Shell Land, and will retain all 85 of its current employees.

ClubCorp could relinquish Philly track operations

PHILADELPHIA — Golf Corp., the Dallas-based management group, is looking to get out of the Philadelphia's municipal golf market.

According to the *Philadelphia Inquirer*, ClubCorp subsidiary Golf Corp., which took over Philadelphia's six municipal courses nine years ago, is looking to sell the 14 years left on its contract to the Meadowbrook Golf Management Co. of Chicago for a reported \$5.5 million.

Golf Corp. says it wants out of the deal so it can leave the daily-fee golfing business to concentrate on its resorts and private clubs scattered around the country.

The deal needs the approval of the Philadelphia Park Commission, whose members have been negotiating with the two companies behind closed doors for months.

State approves 27-hole facility in suburban Boston

QUINCY, Mass. — A group of developers have gotten the go-ahead to build a public golf facility on two contiguous landfills in the neighboring towns of Quincy and Milton located just south of Boston.

The developers, Quarry Hills Associates of Quincy, recently got approval on their environmental impact report from the state's environmental affairs office.

Part of the facility, to be called Quarry Hills, will be supported by fill from the massive Central Artery roadway and tunnel project currently under construction in downtown Boston.

Quarry Hills will include a 27-hole golf course, 25,000-square-foot clubhouse, driving range, softball and soccer fields, basketball courts and other recreational amenities. Construction is expected to start later this summer with the entire project scheduled for completion in five years.

GOLF COURSE NEWS



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Tony Jacklin is the winner of 14 PGA European Tour events (including the 1969 British Open) and 11 other international events (including the 1970 U.S. Open). Tony is also a four-time European Ryder Cup captain, and can be seen on the Senior PGA Tour.

Phoenix officials try to save historic Biltmore golf course

PHOENIX—The ongoing saga of the Adobe Golf Course at the Arizona Biltmore hotel, one of the oldest courses in Arizona, could be heading for the courtroom.

The City Council recently voted to have the Planning Commission come up with a golf course "overlay" that would protect the course from being developed into 112 homes, which is the plan of Kabuto Arizona Properties, the owner of

the land. The Planning Commission is expected to bring a plan back to the council by October.

Mayor Skip Rimsza has vowed to take the matter to court if necessary, even though Kabuto owns the land the course is on and says it has the right to do anything it wants with it as of the year 2000. Supporters of the golf course, including Rimsza, are hoping a settlement can be worked out that will keep it intact.

Judge halts work on Eastwood layout

CARMEL, Calif. — A Superior Court judge has ordered construction halted on the Canada Woods golf course and subdivision being developed by actor Clint Eastwood east of Carmel.

The Sierra Club sued to stop the project, saying it will harm some of the last stands of coastal prairie grassland and Monterey pine savannah.

Eastwood plans to build a 1,006-acre development on a ridgetop east of Carmel with an 18-hole course, 34 homes, an equestrian center and employee housing. Grading for the course started earlier this summer. The suit is expected to go to trial later this summer.

Consultant to study Ventura's future

VENTURA, Calif. — The city of Ventura has hired a consultant to help determine whether it needs more public courses. The city has asked the consultant to determine if it needs to expand an existing golf course, build a new course, or do a better job of marketing existing courses.

Zeke Avila and Sons, which runs the 18-hole public Olivas Park Golf Course in Ventura, wants to build a new course, but city officials are not convinced it is needed. The city's Golf Course Master Plan is expected to take six to 12 months to complete.

Norman to design in Myrtle Beach

LITCHFIELD BEACH, S.C. — Greg Norman will get a chance to make his mark on the Grand Strand. Norman's design company has been selected to design a private, 18-hole layout at Litchfield Beach south of Myrtle Beach to be called The Reserve Golf Club. The private, non-equity club will be built on roughly 180 acres in Willbrook Plantation. It will be Norman's first project in the Carolinas.

Groundwork is scheduled to begin this fall with a target opening date of fall 1998. The facility will include a clubhouse.

Executive track set to open in Calif.

HAYWARD, Calif. — The Hayward Area Recreation and Park District is preparing to build and operate a new, smaller, nine-hole course on the site of the former Hayward Golf Course.

The new nine-hole layout, which will be set on 38 acres, was designed by Gary Bye of David Rainville Golf Course Architects.

The former Hayward Golf Course was closed in 1986, which left the area with only one course.

Bye's design calls for a 1,750-yard, executive-style layout with six par-3s ranging in length from 95 to 175 yards and three par-4s at 275, 335 and 350 yards. Rough grading was expected to be underway by this month.

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Despite base closings, military golf course development on the rise

By J. BARRY MOTHES

Even though many military bases are being shutdown across the country, a significant number of new nine-hole additions and 18-hole courses are springing up on those that remain active.

About 30 former military golf courses have become private or

municipal golf courses over the past five years as a result of the Department of Defense's Base Realignment and Closure Commission, including such well-known facilities as Fort Ord and The Presidio.

But new 18-hole layouts or additions are currently under con-

struction at Andrews Air Force Base in Maryland, Luke Air Force Base outside Phoenix, Ariz., Jacksonville Naval Air Station in Florida, and Camp Lejeune in North Carolina, among others.

This new flurry of additions and courses at active bases, which are funded from the

military's "non-appropriated funds" from sales and services within the military operation, have vastly improved the quality of military golf and eased crowding on many of the courses, according to Al Stetz, the editor of *The Order of Play*, a newsletter of the Military Golf Association. Stetz created the

Military Golf Association to advocate for military golf courses and the rights of retired military personnel to play them.

A rundown of the new golf course construction activity at active military bases across the country includes:

— A new 18-hole course under construction at Andrews Air Force Base in Suitland, Md., which already boasts two of the more highly regarded 18-hole layouts on the military circuit. With the opening of the new 18 designed by Ault, Clark & Associates scheduled for 1998, Andrews will be the only 54-hole military golf complex in the country. The course is being built over a closed landfill.

— A new nine-hole addition opened for play earlier this summer at The Pines Golf Course at Fort Eustis in Newport News, Va., making it a 27-hole complex.

— A nine-hole addition is under construction at the Marine Corps Air to Ground Combat Center in Twentynine Palms, Calif., in the California desert, to make an 18-hole facility that will be open in November of this year.

— A new 18-hole golf course is under construction at Luke Air Force Base outside Phoenix. The course, designed by Gary Panks and Associates, is scheduled to open next year and will be the first at Luke AFB.

"We anticipate doing 60,000 rounds a year," said John Beckett, business operations flight chief at Luke AFB, which is home to about 5,000 active duty personnel with families and another 1,000 employees, "and that's on the conservative side." Beckett said there are also an estimated 65,000 retired military personnel in Arizona, with the vast majority in the Phoenix area. The new golf course at Luke AFB is a joint venture between Maricopa County and the Air Force. The golf course has turned out to be part of a site that serves as a flood retention center.

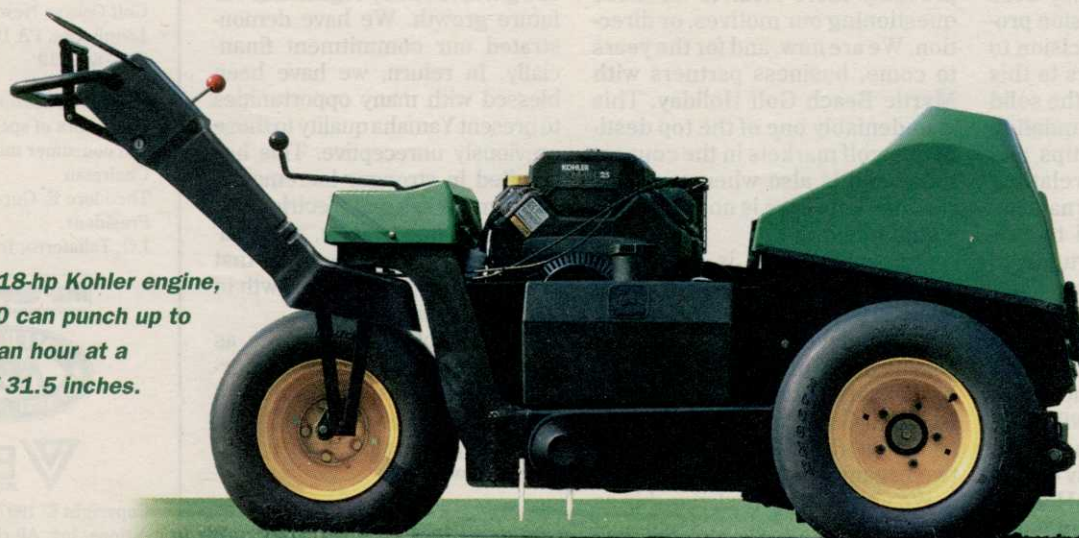
According to Stetz, the National Security's Morale, Welfare and Recreation (MWR) Panel approved \$24 million dollars in fiscal year 1996 to fund a range of golf course construction projects at active bases. That same panel has appropriated \$9.5 million for fiscal year 1997, which covers new golf course construction projects at NCBC Gulfport in Mississippi, Jacksonville Naval Air Station in Florida, Camp Lejeune in North Carolina, and other facilities.

"In spite of all the base closures," said Stetz, "there is still a bright future for golf on military installations."

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Time to don the banana suit?

In case you didn't notice, this month begins our all-out marketing push for Public Golf Forum (PGF), the *Golf Course News*-sponsored conference and expo for superintendents, developers, owners and operators of public-access golf courses on Oct. 27 & 28 in Oak Brook Hills, Ill., headlined by the legendary Billy Casper.

See, got the whole plug in the lead.

Shameless.

Of course, you may be the type who feels you already have too many conferences, meetings and trade shows on your plate. In that case you may pass it by — another brochure for the trash. True, your time and resources can only be spread so far and the market for your conference dollar has never been more competitive.

But if you own, operate, manage or maintain a public course, you may want to think twice before you toss another PGF brochure in the can. Some recent National Golf Foundation (NGF) figures tell an interesting story — one you may know — since it could be changing the way you're doing business at this moment.

From 1986 through 1996, 80 percent of the golf courses opened were public access. In 1996, 88 percent of all new courses opened were public (see statistics on page 3). There're now a staggering 3,267 courses in existence in the East North Central region alone. Now, put those figures next to the fact that player-participation growth rates for the past six years have been simply stagnant.

Chances are, there's a new public course opening somewhere near your existing public course and there isn't a bumper crop of new players in the area. That existing core has a choice.

Now, what do you do?

Renovation has been the path many courses have taken to lure new players and maintain the interest of course faithful. Remounding to make a course more "playable," moving tee boxes and replanting greens rank among some of the standard renovations. New courses come complete with a lot of bells and whistles to lure players; older courses can breath new life into their classic stylings to do the same.

Some courses are increasing their marketing efforts in their areas, while others plan to convert the occasional players through player development/learning centers. This move makes good, sound sense. Think of all those "echo boomers," or children of the "baby boomers," who will be hitting their mature years at the turn of the century. Attaching a learning center can improve player retention while attracting beginners and women — markets golf has to tap into.

And if you're not willing to make one of these changes, there's always the "banana suit" method. A recent news report told the story of a public course owner who, in an effort to lure players, dressed in a banana suit and handed out fruit at the 10th tee.

Renovation and player development are just two of the topics Public Golf Forum will cover — smart, thoughtful alternatives to donning the banana suit.



Michael Levans,
editor

The 'Tiger Factor' is keeping the entire industry busy

Has Tiger Woods spawned a new niche in the golf course industry?

It seems that some forward-thinking golf courses are expanding viewing areas when Tiger comes to town. Just as the thousands of greens- and bunker-renovation projects around the country have spawned new profit-making, so too could this phenomena, if it continues.

Think of it. Who could reap windfall from expansions of viewing areas? Golf course designers, large earth-movers, shapers, turfgrass seed and sod companies, micronutrient and fertilizer suppliers and, later on, chemical firms... The list goes on. And, where turf is not involved, bleacher manufacturers and others.

Everyone is looking for a niche if they don't already have one. Are there any wannabe "turnkey spectator-expansion experts" out there?

The moderate crowds at PGA Tour events of the recent past have ballooned by two or three times — from 10,000 to 20,000 to 30,000 fans — when Tiger plays. Did you get tingles — and memories of Arnie and his Army — when the young man strode up the 18th fairway a month ago to claim his fourth victory of the year, and a mass of humanity trailed him, cheering all the way?

Either fortunate or foresighted, Firestone has been hard at work in preparation for the NEC World Series of Golf. Course architect Craig Schreiner (see Q&A, page 33) is adding gallery space on the 1st tee and tripling the spectator area on the 18th hole. Space around the 16th is also targeted in the plan as well as more "skybox" areas for execs.

"No question, Tiger will draw larger crowds," said Shreiner. "Firestone is well suited for him."

So, also, is the golf course construction industry, it appears.

Are sand bunkers hazards or not? With all the attention on firmness and being able to play out of them, they sometimes lose their reason for existence: to penalize errant shots.

As golf course architect Marvin Armstrong said: "At this rate, at some point in the future they will ask us to remove the water from water hazards."

It seems somewhat appropriate that Widow's Walk Golf Course in Scituate, Mass., (see cover story) sits almost equidistantly between the two most famous links courses in the world: St. Andrews in Scotland and Pebble Beach, Calif.

On the cart path along the 17th hole and between the 3rd green and 4th tee, markers state: St. Andrews — 3,136 miles; and Pebble Beach — 3,152 miles.

An abandoned gravel pit now teeming with wildlife (and a handful of each golfer's golf balls), Widow's Walk may carve out its own territory of fame.



Mark Leslie,
managing editor

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GOLF COURSE NEWS

Letter

YAMAHA MAKES CLEAR ITS SPONSORSHIP ROLE

I want to commend you on your fine publication, and at the same time respond to your recent article on suppliers to the golf industry participating in national golf tournament sponsorships.

I am sure that each of the major suppliers that you addressed has their own strategic agenda, and I would like to address ours at Yamaha Golf Cars, USA, and the Energizer Senior Tour Championship, sponsored by Yamaha Golf Cars.

The article and subsequent editorial were great for exposure, and I am sure that the questions raised were shared by many in the industry. Frankly, the issues of the perceived value of the exposure and television advertising, value of consumer-oriented advertising time, for business-to-business products, and weight of where the dollars may have been spent with more value, were

all areas that were heavily evaluated within the management of Yamaha.

However, it will surprise you to know that these debates were not lengthy, as they were not critical to our decision process. We made the decision to commit serious dollars to this tournament based on the solid Yamaha corporate foundation of business partnerships and mutually beneficial relationships. This national tournament, and only this national tournament, offered an opportunity to build on this foundation.

The Energizer Senior Tour Championship sponsored by Yamaha Golf Cars, will soon move to a new TPC facility in Myrtle Beach. This will be a truly unique situation in that the facility will be jointly owned by Myrtle Beach Golf Holiday (Myrtle Beach Golf and Hotel Owners) and the Tour. Imagine, a new TPC course owned by the local golf course owners

and the tour. In addition, a nationally televised championship which, like almost all tournaments, needs additional financial support.

Now our primary strategy is probably more clear to all those questioning our motives, or direction. We are now, and for the years to come, business partners with Myrtle Beach Golf Holiday. This is undeniably one of the top destination golf markets in the country today and is also where our current market share is not where we would like it to be.

Our sponsorship is about this business relationship with these owners, and the opportunities that our financial commitment to their success, will offer us in the future. It was our partnership with the National Golf Course Owners Association (NGCOA) that led our two organizations to meet.

We view this new relationship as a natural progression of our national program with the NGCOA. This unprecedented partnership with owners from around the country

resulted in over 6,000 new golf cars in 1996 alone, via the NGCOA "Smart Buy" program.

We at Yamaha view golf course owners, and their growing strength as a group, as a key segment in our future growth. We have demonstrated our commitment financially. In return, we have been blessed with many opportunities to present Yamaha quality to those previously unreceptive. This has resulted in stronger incremental sales, more sales of electric cars, and most importantly, relationships and partnerships, areas that are critical to Yamaha's growth in the years ahead.

We do not see ourselves as new players in the national tournament business, but as a quality golf car supplier continuing to build partnerships with golf course owners.

Michael Muetzel
National Sales Manager
Yamaha Golf Car Group, USA

ALBERT ZIKORUS
1921-1997

Albert Zikorus, a fellow of the American Society of Golf Course Architects, died June 11. He was 76.

A course architect for more than 35 years, Zikorus' career in golf started as a caddy when he was 10. He graduated from Massachusetts State College in 1941, and joined the Air Force during World War II. During his service, he earned the rank of sergeant, and was shot down over Germany and held as a POW for 14 months. He was honored with a Purple Heart.

After he returned from the war, Zikorus worked as a superintendent at Ould Newbury Golf Course and Wellesley Country Club in Massachusetts, and Woodbridge Country Club in Connecticut. In the early 1950s, he worked for course designer William F. Mitchell for a short time and



Albert Zikorus

Continued on Page 51

IRS eases golf course management constraints

The following article appeared in the May/June issue of *GolfMarket Today* and is reprinted with permission of the National Golf Foundation. Angelo Palermo is Vice President of NGF Consulting.

By ANGELO PALERMO

Thanks to a recent Internal Revenue Service ruling relative to golf facilities financed by tax-exempt municipal bonds, marriages between municipal golf courses and golf course management firms are likely to be occurring with much greater frequency in the years ahead.

It also enhances the chances of success for those who've already tied the knot.

Issued January 10, the new ruling [Revenue Procedure 97-13] went into effect May 15 of this year. It supersedes earlier IRS rulings that had been in effect since 1986.

Among other things, the old rulings contained a number of provisions that have fostered short-range thinking and carried constraints that have not allowed many public/private management partnerships to fully take root and blossom.

Prior to the new ruling, for example, the IRS had stipulated that the terms of these agreements could not exceed five years and that municipalities, if they wished to do so, could terminate these contracts without financial penalty after only three years. Conditions like these

have discouraged many management companies from undertaking capital improvements and other long-term efforts to improve in the operation of the facilities they're managing.

Under the new ruling, the ceiling on the term of such contracts has been extended up to 15 years. It also softens the "cancellation without compensation" provisions in the old law and liberalizes some of the old formulas that were used to calculate the various ways in which management firms could be compensated.

The new ruling affects current as well as future management agreements. For example, a municipality with a golf course now being operated under a five-year management agreement can extend that agreement for up to another 10 years.

The new compensation formulas will stabilize fees for these longer-term agreements. More specifically, fee payments to those management companies that land 15-year contracts must — under the new ruling — be at least 95 percent "periodic fixed fee." This means that 95 percent of the fee must be a stated dollar amount each month. Under the old ruling, only 50 percent of the management fee had to be predetermined at a fixed rate.

For 10-year agreements, at least 80



Angelo Palermo

percent of the management fee must now be periodic fixed fee. In all cases, automatic increases in these fees may be tied to increases in the Consumer Price Index and other such external factors that are not linked directly to the financial performance of the golf facility.

The impact of these changes will be far reaching for both municipalities and management firms.

For example, knowing that they no longer have to renegotiate their management contracts every five years may encourage more municipalities to consider the option of retaining a professional management firm. Management firms also now have a greater opportunity to build their business portfolios and to do so at less financial risk.

The new IRS ruling should also increase municipal bond-buyer confidence because municipalities that choose to retain a management company can now offer bond holders the added degree of certainty that comes with a long-term management agreement.

For more information on the new ruling and/or a copy of Procedure 97-13, contact Lorreta J. Finger in the IRS's Office of Assistant Chief Counsel for Financial Institutions and Products. She can be reached in Washington, D.C., at 202-622-3980.

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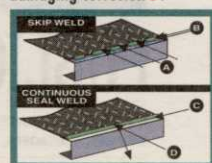


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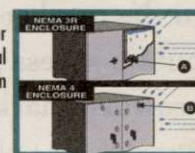
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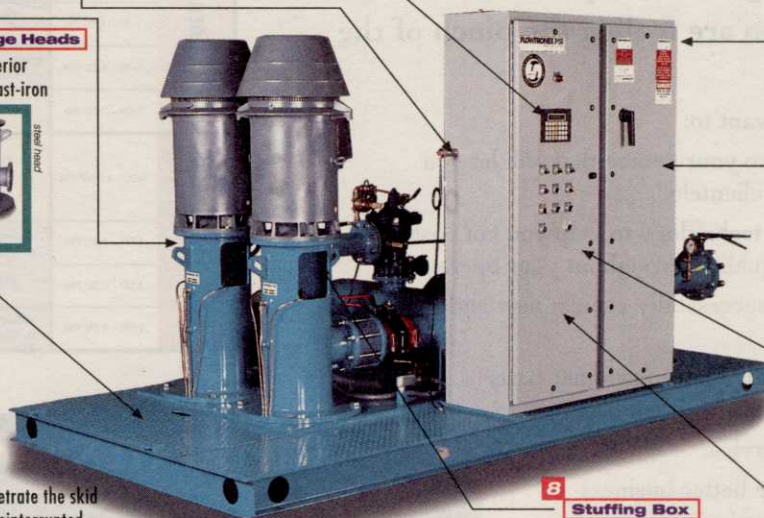


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	2:00 - 2:50 PM	General Manager: Figurehead, Department Head or CEO?	Renovation: Facelifting Your Golf Course	Turf Wars: What's New?
	3:00 - 3:50 PM	Getting Established in a Community	Building the Affordable Golf Course	Gadgets, Gizmos and Inventions: Making Life a Whole Lot Easier
	4:00 - 4:50 PM	Improving Your Image Through Community Involvement	It Doesn't Have To Be "Public"	Bunker Drainage and Maintenance
	5:00 - 7:00 PM	RECEPTION		
OCTOBER 28, 1997	9:00 - 11:30 AM	Expanding Your Base: How To Get New Players In The Game Part 1: The Untapped Market Part 2: The Ultimate Learning Center		9:00 - 9:50 AM: The Perfect Maintenance Complex 10:00 - 10:50 AM: Mapping Your Golf Course at the Speed of Light
	2:00 - 2:50 PM	Operational Audits: Identifying Inefficiencies And Opportunities	Competing for Leisure Time	Biological Controls: Part 1
	3:00 - 3:50 PM	Increasing Your Outing Revenues	Country Clubs for the Common Man: Integrating Golf & Apartment Communities	Biological Controls: Part 2
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BRIEFS



SOD BUYING NUMBERS UP

A recent Gallup poll revealed that at least 4.9 million households in the United States anticipate buying turfgrass sod this year. That is a 36-percent increase from 1996 and far outstrips the 1995 figure of 1.9 million. The survey also reported that in 1996 U.S. households purchased \$426.2 million in turfgrass sod — \$188.6 of which was professionally installed.

JACOBSEN KEYNOTING FOR GCSAA

ANAHEIM, Calif. — PGA Tour veteran Peter Jacobsen will keynote the Opening Session, Feb. 4, of the 69th International Golf Course Conference and Show here. The annual event, sponsored by the Golf Course Superintendents Association of America, will be held Feb. 2-8. Author of the book, *Buried Lies: True Tales and Tall Stories from the PGA Tour*, Jacobsen has won six Tour events, participated on the 1985 and 1995 U.S. Ryder Cup teams and was player director on the Tour policy board from 1983-85. He owns a golf course design company.



Peter Jacobsen

IPM SEMINAR SCHEDULED

PHOENIX — The major concepts of a sound Integrated Pest Management program will be presented by Dr. Karl Danneberger of Ohio State University here Sept. 3. Presented by the Cactus and Pine Golf Course Superintendents Association and Golf Course Superintendents Association of America, the seminar will focus on managing turfgrass under environmental stress as well as pest management and pesticide resistance. Advanced registration is required. People may call 800-472-7878 for more information.

GA. SETS FIELD DAY, TURF CONFERENCE

GRIFFIN, Ga. — Two Georgia turf events have been scheduled. Georgia's Turfgrass Field Day has been set for Aug. 27 here. It will feature tours of the research plots, discussions of turfgrass breeding and research and an exhibit area of turf equipment. Meanwhile, the Georgia Turfgrass Association's 28th annual Turfgrass Conference and Show will be held Dec. 9-11, emphasizing sports and commercial turf management, golf turf issues, turf breeding, landscape and ornamentals. For information, people should contact Douglas Moody at 770-975-4123.

Walking the talk at Widow's Walk GC

Superintendent Jeff Carlson pushes all the environmental hot buttons — and wins

By MARK LESLIE

SCITUATE, Mass. — The Shakespearean student in him might look at this job as *A Midsummer Night's Dream*. The analyst in him might view it as an opportunity to fill a spreadsheet with figures. But the superintendent in Jeff Carlson views his position at Widow's Walk Golf Course here as "professionally satisfying," bringing



Jeff Carlson

"very high satisfaction as a golf course and grow-in superintendent and very, very high satisfaction when you add its restoration aspect."

The "restoration" to which Carlson refers is creating a living golf course from a "dead" piece of ground: a former gravel pit and dump site littered with cement blocks, old refrigerators and other assorted ugliness. The course, municipally owned Widow's Walk, has gained more public attention than almost any in the country because it will serve as a working laboratory to discover the impact of a golf course on wetlands, wildlife and habitat.

The Massachusetts Audubon Society and Scituate Conservation Commission have been heavily involved in this reclamation project.

Continued on page 20



Jeff Carlson photo

No, this is not sod, which needs repair every couple of years. It's shag carpet.

Used carpet for permanent 'sod-wall' bunkers? Good trade

By MARK LESLIE

SCITUATE, Mass. — Some inventions seem to be just laying around under a bush waiting to be discovered by an innovative mind. Such was the case of the "sodwall bunker kit in waiting" — Dr. Michael Hurdzan's answer to a standard, old-time stackwall bunker.

Fresh from a trip to Scotland, the home of sod-wall bunkers, Hurdzan was walking the property of what would become Widow's Walk Golf Course here — an abandoned gravel site. "He's walking along and finds this ugly carpet under a bush, and all kinds of light bulbs go off with him, and him alone," recalled Jeff

Carlson.

Voila! The idea of the "carpet-wall bunker" was born.

"Maybe this will change the face of American golf a little bit," Hurdzan said. "It will add spice to a linksy golf course."

"As an alternative to sod, I can't think of a better one," said Carlson. "It has the potential to really stay in the industry."

"You had to have the right client to try it," Hurdzan said. "This was the perfect opportunity because of the experimental side of the project. Now that it's done it will be a much easier sell."

"I think sodwall bunkers add such a distinct flavor to a golf course that you

Continued on page 22



Terry Buchen photo

Talkin' Trash

Keeping control of golf course trash in a clean and efficient manner, is accomplished with this ramp up to a trash bin.

By TERRY BUCHEN

LAS VEGAS — One of the best ways to handle golf course maintenance trash is demonstrated at the new TPC at The Canyons here. The maintenance complex, guided by Kim Byran Wood, features a ramp as the key to collection.

Key to the system is an 8-inch-thick concrete ramp,

Quick and easy clean-up at Canyons

with surrounding walls that are 12 inches thick — all with reinforcing rods (rebar), Wood said.

An overhead, colored decorative wall, which shields the employees' parking lot view of the trash re-

Continued on page 18

Inroads in 'biologicals' research, Nelson reports

Dr. Eric Nelson has been an associate professor of plant pathology at Cornell University in Ithaca, N.Y. since 1993. He has done extensive work with biological controls to fight turfgrass diseases and his work has been extensively published.

He holds master's and doctorate degrees in plant pathology from Ohio State University.



Dr. Eric Nelson

Golf Course News: What type of work are you doing on biological controls?

Eric Nelson: We have two approaches. The first is the addition of organic amendments that provide a food source for beneficial microorganisms. The amendments enhance the microorganisms' activity and control pathogens. We've replaced peat moss with compost in top dressing and seen up to 90 percent disease control with the compost amendment. Most of the control has been in foliar pathogens such as dollar spot, brown patch and gray snow mold. We've also seen control of pythium root rot, which is interesting because it isn't a foliar problem. We've tried all types of composts: animal manure, yard waste, industrial sludges. Poultry manures and some sludges have worked very well. Brewery sludges have been very effective, having a sustainable supply with predictable results.

The second approach is specialized microbial inoculants. That involves spraying bacteria, fungi or actinomycetes (bacteria that grow like fungus) on turf to control disease. We've

Continued on page 16

See related story, page 1

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Coincidentally, 1954 is when E-Z-GO began its drive to the top with a string of technological innovations, industry leading designs and unmatched quality. That's why more golfers have ridden in E-Z-GO cars than any other golf car in history.

*Arnie leads the army, but
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Q&A: Nelson spells out progress of research into biological controls

Continued from page 13

targeted pythium and brown patch. The problem is that something can work well in the lab, but fail in the field. It's hard to maintain these materials at high enough populations on the golf course because of competition with other organisms and fluctuations in the environment. This summer we're studying the effects of weekly or bi-monthly applications, hoping that increasing the application frequency increases effectiveness. We're also comparing the difference in daytime and night-time applications. Since we know many inoculants are UV sensitive, nighttime applications could prove more effective.

GCN: What can you tell us about your USGA-funded research on the non-target effects of fungicides?

EN: We're in the second year of our three-year funding. The idea is to see if there is any decrease in [positive] microbial activity from using fungicides. In most cases, so far, we've seen that microbial activity has actually increased with fungicide applications. We think fungicides may serve as a food source for microorganisms. Fungicides could also cause subtle qualitative changes that inhibit some species of bacteria while encouraging others to increase. Fungicide treatments can be combined with biologicals in a meaningful way. That also means biologicals can be used to reduce fungicide applications.

GCN: Tell us about your work with seed treatments.

EN: Pythium is a major limiting factor in seedling establishment, especially for bentgrass. As a result, superintendents tend to seed bentgrass at heavy application rates. They could use more reasonable rates if we could protect the seeds from pythium. With higher seeding rates we also see increases in dollar spot.

We're testing both biological and chemical seed treatments along with different seeding rates. We're finding we can get thicker bentgrass stands at lower application rates.

We're in the midst of a three-year study and hope to get USGA funding. Right now the New York Department of Agriculture's IPM program is providing funding.

It also appears that if you can keep pythium out of a new bentgrass stand early, you increase long-term control of pythium root rot, a common problem in the Northeast.

We're looking at other pathogens that slow seedling establishment, such as fusarium. No one's really looked at the effect that has on the roots of mature plants.

GCN: What other research do you have underway?

EN: We're looking at whether long-term compost applications to perennial ryegrass increases the turf's ability to suppress disease. We want to know what a suppressive community looks like.

GCN: Does the USGA do a good job allocating its research funds?

EN: Like anything, there could

always be improvements. But historically, the USGA has funded some great work. In the past, the USGA has felt the need to spread its funding around geographically. I'd prefer to see them prioritize the importance of the work being proposed, rather than worrying about spreading the money around the

country.

GCN: What do you see as the most exciting areas in the future?

EN: The whole biological arena is growing exponentially. Superintendents will be inundated with products over the next five to 10 years. New formulation and delivery technolo-

gies will make them as effective as chemicals. We're already starting to see 100-percent control with biologicals in areas with low disease pressure.

I have no idea about the economics involved. There are increased labor and fuel costs using biologicals. Courses will have to absorb those.

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By TERRY BUCHEN

WILLIAMSBURG, Va. — One of the best tools in the superintendent's public relations arsenal is the club/course newsletter,

which usually is written monthly, or at least quarterly. With this open forum written exclusively by and for the superintendent, communication with the golfing elite occurs in a lively and timely fashion. One of a super's favorite topics is the Turf Tip section, advising golfers of opportune topics of how to main-

tain their home lawns, trees, shrubs, annual flowers, wildflowers, irrigation systems, etc.

The real meat of the monthly column include such topics as the results of a recent green committee meeting; progress reports; capital improvements; capital equipment recent acquisitions and how they have made improve-

ments to the course; temporary greens during winter golf; frost delay policy; annual overseeding of warm season turf; renovation/restoration schedules; what is done on Mondays when the course is closed; what is being done on warm season courses during the off-season; maintenance objectives; tournament conditioning;

upcoming local/regional/state/national tournament conditioning; spikeless golf shoes; poa annua and what is being done about it; member/guest preparation; club championships; ladies days; replacing divot policy; ball mark repair "how-to-do"; hole location/tee marker policy; irrigation/drainage system explanations; bunker maintenance philosophies; lake maintenance; environmental issues; pesticide safety/licensing issues; integrated pest/plant management; Audubon International Signature Status; community public relations and involvement; driving range/chipping green/putting green management; turf care center improvements needed; turf nursery experimental plots; tree planting committee update; memorial tree planting update; on-course landscaping; lightning safety issues; employee of the month notification; employee safety and training details; clubhouse landscaping; swimming pool information; tennis court issues; vandalism/security measures; superintendents certification program; turf conference/seminar involvement; golf course architectural master plan; Rules of Golf and golf course maintenance; USGA agronomist visitation report results; and aerification/topdressing/verticutting schedules.

The greatest use for the newsletter is a progress report of what is going on out on the course, why it is being done, when it will be done or has been done, where it will be done and who is involved in the decision making process. What it all boils down to is that supers are explaining that the golf course is under the mercies of Mother Nature and how, with even the best laid plans, that nature many times prevails.

Probably the hardest aspect of writing a column is the timing as the press deadlines are many times 15 to 30 days prior to the mailing date, which makes it sometimes hard to predict what the weather will do and how it has affected progress on projects or turf growth or other non-predictable issues.

In addition to the newsletter, many supers have had excellent results including an exclusive letter along with a members monthly dues statement (sometimes called The Green Sheet) for explaining timely topics in a more detailed and personal manner.

This letter can be many pages long while still staying within the bulk mail rate guidelines. Many times a super will even provide a special, exclusive mailing to club members when important issues present themselves, as there is probably no better forum than a private letter/report to an attentive audience.

Newsletters: the superintendent's great public relations tool



A tale of bales of barley straw and algae

By MARK LESLIE

TORONTO — News flash: Folk remedy strikes at the heart of the pond algae problem.

While science and technology are striving to remove algae from ponds, some superintendents are accomplishing the task with a simple bale of barley straw.

"Generally speaking, I'd say it works," said Gordon Witteveen, director of golf maintenance for the Board of Trade's five golf courses here.

Witteveen, who has two or three bales of barley straw in each of his half-dozen ponds, said, "We've implemented it and had pretty darn good success."

Two bales per acre of pond is sufficient, he said. He also suggested wrapping the bale with chicken wire or fishing net to prevent its falling apart when it decomposes. The bale floats, anchored by a string tied to a cement block.

"In Canada we can't use any dye or chemicals for aquatic weed control in non-self-contained ponds. If the pond is self-contained, you can use chemicals, but you must get a permit for every application," Witteveen said. "Mechanical harvesters, or long rakes can take algae out. Fountains work well, too. This [barley straw] is another tool."

But why would barley straw rid a pond of algae?



ON THE GREEN A bale of barley straw floats atop a one-acre pond on the 8th hole on the East Course at Toronto's Board of Trade Country Club.

"This is my theory," said Dr. Eric Nelson of Cornell University, who has seen this method work. "It ties up nitrogen during decomposition of the barley straw. And since it's the nitrogen in the water that promotes algal blooms, they stop."

"I have not seen any research to prove this. But it makes sense. When you mulch plants with wood chips sometimes those

chips pull nitrogen right out of the plant."

One difficulty could be in finding pure barley straw to begin with. But the farmers Witteveen works with have a large percentage of barley in their fields, he said.

Meanwhile, using the bales adds a novelty to the course, right? "Everybody is talking about it on the golf course," Witteveen said. "They're asking, 'What are these bales of hay?'"

Trash talkin'

Continued from page 15

ceptacle, is constructed with cinder blocks covered with painted stucco. A 12-inch drain pipe was installed at the bottom of the ramp with a 24- by 24-inch catch basin for drainage during a storm. A high-pressure hose off of the irrigation system makes clean-up easy.

A trash dumpster, ranging in size from 20 to 28 cubic yards, is usually used.

"While they are emptying the dumpster, we use a front-end loader to clean up any spilled debris, sweep up any smaller debris and then hose off the entire area," Wood said. "If the truck picking up the dumpster brings an empty one along, the turnaround time is limited to clean up the ramp area."

While the filled dumpster is hauled to the landfill, it must be covered at all times.

When an employee empties a maintenance vehicle, they simply slide the debris into the dumpster. On rare occasions, a dumpster is delivered with higher sides than normal, which forces an employee to shovel debris up over the side of it.

But Woods said: "We request our normal height dumpster, where the top is flush with the concrete apron, but they just aren't available sometimes. The total outside area of our maintenance complex, including the trash dumpster area, is completely lighted, using photo-electric cells with timers."

The Links Golf Course
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Memo from: The desk of Tom Smith
Greens Committee Chairman

Memo to: Bob Barlow, CGCS

Subject: Accessory Budget

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GREENS COMMITTEE ACCESSORY BUDGET PRESENTATION

ACCESSORY BUDGET - 3 YEAR PROJECTION

Accessories	No.	New Accessories	In House Refurb	GCS Inc Refurb
Ball washer	18	\$3,024	\$1,727	\$994
Post	18	405	324	279
Ball washer base	18	1,188	486	418
Foot Scraper	18	783	432	396
Trash Bracket	9	306	216	198
Putting Cups (Aluminum)	36	594	447	324
Benches - 6' park style bench	9	3,915	1,806	1,953
Tee Markers - custom forged	108	2,160	1,179	864
Sales Tax		742	0	0
TOTAL		\$13,117	**\$6,617	\$5,426

** NOTE: Our in house refurbishment lasts about 1 year. I multiplied our annual in house cost by 3 times to calculate a life cycle equivalent comparative cost to Golf Course Solutions.

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<ul style="list-style-type: none"> Saves money - over 70% more to refurb our ball washers in house when compared over equivalent life spans. <ul style="list-style-type: none"> GCS Inc's powder coat finish looks far better than ours and is much more durable. GCS Inc installs anti-seize set screws. All welding is included in the price. New accessories cost as much as 140% more. <ul style="list-style-type: none"> Golf Course Solutions' stuff looks better than new! Reduces time demands on staff. Can reduce staff or refocus on more important projects. Provides a cost effective way to change the color of our accessories like we've talked about before Golf Course Solutions can powder coat paint our bench ends and retrofit our benches with maintenance free recycled plastic lumber for about half the cost of a new bench. 	<ul style="list-style-type: none"> We have to ship accessories to GCS Inc.

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Software combines maps, database to customize

By PETER BLAIS

PORTLAND, Maine — A former assistant superintendent is ready to hit the market with a customized computer software application designed to help superintendents better manage their facilities.

The Golf Course Information System™ provides geographic mapping capabilities coupled with an organized database of all pertinent golf course management information in an easy-to-use Windows™ point-and-click environment.

"The system allows the superintendent to map his course and then use an historical database to spot trends," said Director of Sales and Marketing Peter Forester of Forester Associates Ltd., the Portland-based program developer.

For example, dollar spot was a yearly problem at The Gleneagles Golf Course at The Equinox in Manchester, Vt., where Forester worked as assistant superintendent for three years following his graduation from the University of Maine. An extensive scouting regime determined the exact locations of dollar spot outbreaks. The club then treated only those areas where the outbreak regularly occurred rather than the entire area, eventually reducing the treatment area from 10.45 acres to 2.74 acres while maintaining a healthy turf.

In addition to the course layout, the system allows the superintendent to map such features as irrigation heads, specific locations and varieties of trees, diseased areas, and recommended daily maintenance routes and schedules. It can also store historic data such as daily temperature highs and lows, rainfall and humidity levels. This information can be laid over course maps to help predict potential trouble spots. The software can also store photos and videos as well as text and tables.

The software costs from \$1,200 to \$1,500, Forester said. The major cost variable is the mapping. Using aerial photos, Global Positioning System readings and/or CADD drawings, Forester will map an entire course in 40 to 80 man-hours. That cost is in addition to the software package.

Forester said the company has targeted a couple groups. One is management companies. The management firm's individual courses could e-mail their information into a central office and share that among the various facilities. Forester said he would also like to work with environ-

mental associations, believing they may endorse the product since GCIS can help significantly reduce chemical applications.

For more information contact Forester Associates Ltd., 305 Commercial Street, Suite 503, Portland, ME 04101; 207-871-8659.

Design, construction seminar is scheduled

DELHI, N.Y. — The New York State Turfgrass Association, SUNY Delhi College of Technology and local golf course superintendent associations will sponsor a golf course design and construction seminar at SUNY Delhi on Aug. 5 from 9 a.m. to 4:30 p.m.

Sessions will include: "Bunker Design — Avoid the Traps," by Ron Forse of Forse Golf Course Design and Consulting of Uniontown, Pa; "Proper

Sand Selection and Tips from Experts," by superintendents Scott Dodson of Park Country Club of Buffalo and Joe Hahn of Country Club of Rochester. There will be a total of 1.5 DEC credits available for attendees.

New for this year is a special session for golf course mechanics. Hymie Williams of The Toro Co. will share information on sprayer calibration, maintenance and repair, and Brian Bridger of Foley United will present in-season reel mower sharpening techniques.

An afternoon shotgun tournament on the new 18-hole Delhi College Golf Course is planned.

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Carlson walking the talk

Continued from page 13

sation project and Carlson acknowledges the spotlight will continue to be on him and his course. He and Terry Bastion of the ecological design firm Waterflowers in North Reading are already monitoring all sorts of environmental data on this course; and local bird watchers are often on the property at 5 a.m.

"The day we got the job and saw the site, I knew it was a rare opportunity," Carlson said. "You don't get a lot of opportunities in your life, and one of them is to have a great site to work with ... I like to do selective clearing, and the site lends itself to interesting decisions: save this, move that. I thought it presented a lot of challenges that fit in with where I felt I was going personally.

"I had construction and grow-in experience, and I like to experiment. It fit, in that sense," he added. "I don't know where it will go. But it certainly received a lot more attention than I had thought."

The attention is not only because the land is close by the Atlantic Ocean, but also town officials consented with course architect Michael Hurdzan to experiment with the greens construction. Six greens were built to U.S. Golf Association specifications, six by the all-sand California Method and six with soil. Some of the root-zone mixes included Profile and other amendments. And all the greens were built so that Bastion could gauge chemicals from run-off and leaching.

"We've already put together a spreadsheet and will enter information like water use, fertilization and pesticide application," Carlson said. "We also do visual observations about how the turf is responding to traffic, etc. By the end of the year we will have a chart covering Year One and grow-in.

"Will we be able to draw conclusions? Certainly on water use. It looks like it will be a lot less. But I want to put a hard number on these percentages. I think they will catch a lot of people by surprise."

While Carlson said installing the variety of greens was "an attempt for a search for pure knowledge" for the golf industry, many of the conclusions from the findings will have to be tempered. "For instance, these soil greens look good but it's very high sand content and so soil, even in another part of Massachusetts, might be unacceptable.

"It will be interesting to see how California greens fare versus USGA greens. Anybody building a golf course on Long Island, Cape Cod, the coast of Massachusetts, any of these sandy areas ought to

have their soil tested and give serious thought to using native soil. We may be able to give them an answer in a year or two about how good that really is."

Meanwhile, soil amendments, for one thing, are proving their worth, he said. "They make the texture of the soil much softer and, if they don't compact as

much, that's good."

This is all a long way from where a young Jeff Carlson thought he was headed when he earned a bachelor's degree in English literature, with a concentration on Shakespeare from Drew University in Madison, N.J. The Connecticut high schooler had played golf and worked summers on a course on Cape Cod, but a career in the field wasn't on his mind.

Nevertheless, he stayed on at

the nine-hole Brewster Golf Course, was promoted to assistant a year afterwards, and head superintendent five years later.

"I was eager and cheap," he recalled. His rise up the ladder came when he obtained an associate's degree in turfgrass management from the University of Massachusetts' Stockbridge School and got a job with Corcoran Jennison Hospitality in 1985 during construction of Ocean Edge in Brewster.

"It was a great opportunity," he said.

He earned his certified golf course superintendent status and when Scituate hired Corcoran Jennison to operate Widow's Walk, Carlson was given the opportunity many of his colleagues would have relished.

"There are things I'm anxious about," he said. "But, the task in general, no. I'm really looking

Continued on next page

THE PROOF OF A GOLFER

by Edgar Guest

The proof of the pudding is the eating they say,
But the proof of a golfer is not
The number of strokes he takes in a day,
Or the skill he puts into a shot.
There is more to the game than the score which you make,
Here's a truth which all golfers endorse:
You don't prove your worth by the shots which you make;
But the care which you take of the course.

A golfer is more than a ball-driving brute.
He is more than a mug-hunting czar.
To be known as a golfer, you don't have to shoot
The course of your home club in par.
But you do have to love every blade of the grass,
Every inch of the fairway and greens.
If you don't take care of the course as you pass;
You're not what "a good golfer" means.

Just watch a good golfer some day when you're out,
And note what he does as he plays.
He never goes on leaving divots about,
'Til the grass is put back, there he stays.
Observe him in traps as he stands for his shot,
Then note when the ball has been played,
He never unthinkingly turns from the spot,
'Til he's covered the footprints he made.

You may brag of your scores and may boast of your skill,
You may think as a golfer you're good;
But if footprints you make, in traps you don't fill,
You don't love the game as you should.
For your attitude unto the sport you enjoy,
Isn't proven by brilliance or force;
The proof of a golfer - now get this my boy,
Is the care that you take of the course.

Scotts

Carlson

Continued from previous page

forward to it. In a situation like this you're able to try different things. Sometimes, in the world of golf course superintending there is so much pressure to have an 'Augusta National' green that the world gets flat in terms of trying new ideas. So this is a great forum for new ideas. In that sense, there isn't so much

pressure. But then ..."

But then comes the realization that this course does not just have a green or two that are troublesome and must be treated differently; it has "so many things going on from green to green that they are very different," he said. "They mow differently. Their water use and response to fertilizer is different. There is a lot to take into account. With such a simple thing as cup-chang-

ing you have to carry around three different buckets because you've got soil for one bucket, 100-percent sand for another and USGA for another... Those kinds of things you never even think are going to happen, do happen."

One concern facing Carlson is managing carts on the creeping fescue fairways. "The fescue is tolerant of drought as long as you're not driving carts or walking over it," he said. "It responds

in the same way as if you were to drive over it when there is frost on the ground; it gets burnt. I've been spending a lot of time trying to manage the entrance and exit areas on the fairways. If there is a sprinkler nearby I make sure there is enough coverage to keep it from drying out. I'm upgrading nozzle sizes on those heads. If I don't have a choice, then I'm trying to direct carts in one direction and lose that one area rather

than a whole general area."

Also, Carlson is experimenting with his G-1 greens.

"I can't believe how little water these greens use," he said. "This course is on 100-percent sand base and a lot of these greens are sand greens. I'm watering less than 50 percent of what I would normally use on a green."

Being as dense as it is and with excellent recovery and disease resistance, G-1 might be a good grass to combat *poa annua*, he said. "With this low-water regimen, *poa* couldn't get in," he added.

Meanwhile, the water source for the course is an old town water well abandoned because its levels of calcium, magnesium and sodium went beyond the acceptable drinking-water standards. They were fine, however, for turfgrass, and are constantly monitored to detect any salt-water intrusion.

...

Working with conservationists, Carlson said, has been an education. One aspect of that education is clearing the land.

"There's a lot of plant material you can't just cut down," he said. "You're picking around and leaving bayberry and mowing down some fescues rather than removing them. Because it was an abandoned gravel mine, you can't get through some rough areas. It's all weedwhacker and bush rotary stuff and there are rocks everywhere."

"I don't think you'll ever see this course cleared to the extent of others. And that's one of the things Audubon wants: areas uninhabitable by a human."

Carlson is continuing to place bluebird and purple martin boxes and monitoring the species migrating through this site, which is in a migratory pattern.

Does all this work mean more manpower on his maintenance staff?

"Right now it stacks up about the same," Carlson said. "It's perhaps one person more than my other places. But I wouldn't consider it more than 5 percent more labor-intensive. For instance, these greens are so drought-tolerant that you don't spend time syringing. But, we are hand-mowing them and that's more labor-intensive."

All this environmental work, he said, "feels right."

"It feels right doing this stuff with the Audubon and reclaiming this ugly site and seeing the positive reaction from townspeople," he said. "You feel you really are improving something forever."

And what does the future hold in store for this Shakespearean student-turned-superintendent?

"I'd like to do more courses like this," Carlson said. "I'd love an opportunity to do it again on a similar type of site: coastal. It would be interesting."

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Correspondence courses developed

Two turfgrass management correspondence courses have been developed by Dr. Keith Karnok of the University of Georgia's (UGA) Crop and Soil Sciences Department.

One course is patterned after the intermediate turfgrass management course taught by Karnok. The other, Principles of Turfgrass Management, was developed in

cooperation between UGA's Continuing Education and the Professional Lawn Care Association of America. The Golf Course Superintendents Association of America has reviewed both courses and will award three CEUs toward recertification for each course completed. More information is available from calling 800-325-2090 or 706-542-1756.

IGM OPENS REGIONAL OFFICES

LAKELAND, Fla. — To improve the level of service to its southwest and central Florida golf course clients, International Golf Management, Inc. (IGM) has opened a pair of regional offices in Ft. Myers and Tavares. "Our regional offices will enable us to provide existing clients with a higher level of service and will be an asset in securing new business in the rapidly developing southwest and central Florida markets which we view as tremendous growth areas for our business," said Scott Zakany, vice president and general manager. Located at 1419 Courtney Dr., the Ft. Myers office houses John Carlin, Southwest Florida regional manager. The Tavares office, located at 1617 East Alfred St., houses Jim Wells, Central Florida regional manager.

'Carpet-wall' bunkers built

Continued from page 13

can't replace any other way. The problem is maintenance. They have to be replaced every three to five years. You can't get anybody in North America to do it. I'm sure that, early on, sodwall bunkers were common here because of the Scottish influence. But at some point they died out, probably because of maintenance factors."

After experimenting with 6-foot and then 3-foot lengths of carpet, Carlson settled on short pieces, which can be built into "a little curvy wall kind of like a brick wall."

The carpet is flexible and can be turned a bit like sod for rounded bunker faces, he said.

Between each layer of carpet Carlson's crews spread 1/4 to 1/2 inch of soil and then seeded it. "We wanted the grass to grow and fill in. The seed buries its roots into the next carpet and gives it some structure."

Carlson recommended carpet that is not quite deep-pile shag, because it has to have body. Earth-tone colors like brown, beige and green are good, he

It's labor-intensive to build, but it is to build a stackwall bunker, too.

And these will never have to be rebuilt.'

Jeff Carlson

said, because it tends more quickly to look like dirt quicker.

"Superintendents, given this idea, will fine-tune it and make it even better," he said. "It's labor-intensive to build, but it is to build a stackwall bunker, too. And these will never have to be rebuilt."

Meanwhile, a local carpet installer gleefully dropped off his carpet remnants for Carlson initially. "Now I'm getting carpet from everywhere."

...

Hurdzan acknowledged that he for years had searched for ways to build cost-effective sodwall bunkers.

"I've tried all sorts of things to built them: zoysia, old grass, young grass, stuff with a lot of thatch, painting the sod with lacquer so it wouldn't decay, things to try to slow down the decay of bacterium," he said. "But I concluded that organic matter decays, and so I've tried to come up with an inorganic source."

"I thought the conveyor belt might be the way to go, but it's hard to find and really might not have quite that look. I thought of old fire hose. Then I saw this carpet, and I thought there is carpet everywhere and it will last forever. I'd love to use it in future courses."

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Widow's Walk

Continued from page 1
groups, designed the course.

"We recognize, both as environmentalists and golf people, that we are all passengers on Space Ship Earth and that we need to conserve the resources we have here," Hurdzan said at a media opening. "This is an enormous attempt to try to put together an exciting, playable, fun, affordable, maintainable golf course using 50 percent of the water, fertilizer, pesticides and fossil fuel that a normal golf course would use."

"You're now sitting on an area that was barren," said Scituate Board of Selectmen Chairman Joe Norton. "It was an area that nothing grew on, nothing lived on and certainly no one enjoyed."

Hurdzan cited others who worked on the project, especially habitat planner Bill Burbank of Abbellire Inc. in Worcester and East Sandwich; Roy Parker and Lou Haines of Soils Management Technologies of Arvada, Colo., who contributed Profile porous ceramic and humates; Scotts Co., which contributed all the turfgrass seed and initial fertilizer as well as coconut core used on some of the greens; and Kerman, "the senior designer who handled all the details."

Time — and studies conducted by Terry Bastion of the ecological design firm Waterflowers in North Reading — will tell the impact of the golf course on the wetlands and habitat on the 118-acre property. But all stops were pulled in its development.

- G-1 bentgrass, a new variety that uses half the water of others, was used on the greens.

- Fairways and roughs were planted with Victory II and Banner II creeping fescue grass, which are disease-resistant, insect tolerant and need less fertility than others.

- Cart paths are built with recycled asphalt.

- Carpet was recycled for use in sod-face-type sand bunkers.

- The Smart Rain and Toro Sitepro computer-programmed systems operate the irrigation, optimizing water and chemical applications.

The golf industry is particularly interested in findings from the greens construction. Three different drainage systems were built on each of three different types of greens. One drainage system is the typical U.S. Golf Association herringbone-type pattern. Another is a flat drain tile (ADS Advantage) system that is laid on the subgrade rather than trenched. The third is no drainage except a "smile" drain at the low point where the water will leave the green.

With each of those three types of drainage are three types of green:

- a USGA-specified green with a 12-inch root-zone layer, intermediate layer, if required, and pea gravel layer;

- a California Method green, which is a 12-inch profile of 100-percent sand on the subgrade with a micronutrient package in the top 2 to 3 inches of the green; and

- a native sandy loam green, using the best available soil from the site as the greens matrix.

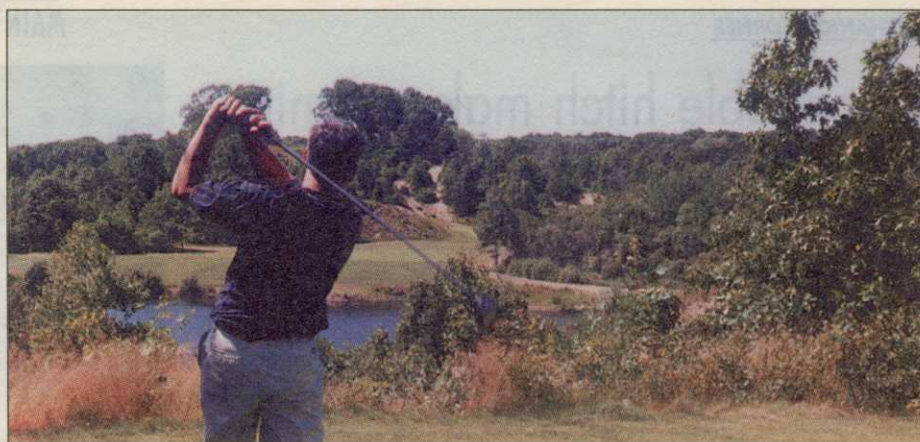
A leachate collection pit is installed at every green to provide water samples for

Bastion.

"The habitat planning was as important as the golf course," Hurdzan said. "We tried to leave the natural vegetation. There are wonderful communities of plants out here that have adapted over the years and we wanted to leave that. That is the look and feel we want."

Little did anyone know when Boston Sand and Gravel Co. mined away this land to build Logan Airport that, years later, it would be rebeautified — and a living laboratory as well.

"We in Scituate are thrilled," said Norton.



A golfer tees off over a pond 80 feet below on the par-4 17th hole, which exemplifies the ecological character of Widow's Walk Golf Course.



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Removable hitch makes turning possible without a glitch

By CHRIS NOWACK

Every golf course could use a heavy-duty, removable hitch that will allow operators to tow apparatus without having to fight to install the draw pin or the worry of operators turning too sharply and causing damage.

I came up with this idea after asking my superintendent why he only used our 1989 3-wheel truckster for pulling our 100-gallon Spray Devices, Inc. (SDI) sprayer. His reply was that the 1989 Cushman was the only vehicle that had a hitch that was convenient to use and did not cause damage to the sprayer when making sharp turns.

I focused my attention on the Cushman we had bought with a GA-60 fairway aerifier. Being familiar with the 5th-wheel attachment that you install on the Cushman to tow the GA-60, I began to design some type of a drawbar that would work with the receiver that was already bolted to the frame of that Cushman. I wanted it to be quickly removable so we could still use the GA-60 aerifier when needed.

After having completed the first one, I installed it on our 1994 Turf Truckster. Total time involved in constructing and installing this hitch was about 4 1/2 hours.

I immediately saw that the benefits of this hitch were exactly what we were looking for and made them for all of our Cushman Turf Trucksters.

The first step to building these receiver-type hitches, is to obtain these parts and materials:

- Receiver assembly Cushman part #897007.
- Drawbar assembly "only needed if your Cushman does not have the newer style" Cushman part #892795.
- 4 pins and clips Cushman part #882770.
- 24-1/2 inches of 4- by 1-1/2- by 3/16-inch steel channel per hitch.
- 34 inches of 2- by 2- by 1/4-inch steel tube cut in 17-inch pieces per hitch.

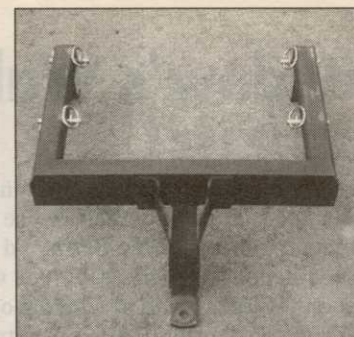
To begin with, install the two pieces of 2-by-2 tube into the receiver (part #897007) openings, leaving 7 inches outside the end, with the end with the plates having the two holes drilled in them. This should leave a 1/2 inch of the tube outside the opposite end of the receiver openings.

Holding each tube, one at a time, towards the center of the receiver, mark the tubes where the four holes are drilled in the

receiver. Remove the tubes and drill out the four holes to 1/2 inch for the four pins (part #882770).

Next take the drawbar assembly (part #892795) and center it

Continued on next page



Chris Nowack's hitch, above, is easily attached and removed from a utility vehicle, left.



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Superintendents tell why they rely on Eagle to prevent stubborn turf diseases.



Mike Jones
Valley High Country Club
Elk Grove, CA

"We go into the season with really nice greens," says Mike Jones, superintendent at Valley High Country Club in Elk Grove, CA.

"Then about July, the decline starts and it's a constant battle all through September."

Mike's solution was to intensify his preventative fungicide program with Eagle®, while raising fertility levels.

Mike's experience was no surprise to us. We've been saying all along that Eagle provides dependable, long-lasting protection against 14 major turf diseases — protection unmatched by any other systemic fungicide. Better yet, Eagle is now registered to control summer patch and spring dead patch.



Rich Hardebeck
Eagle Lake Golf Club
Farmington, MO

Tackling dollar spot and brown patch

Rich Hardebeck is superintendent at Eagle Lake Golf Club in

Farmington, MO. When he first came to Eagle Lake, he experienced extremely heavy dollar spot on his ryegrass and bluegrass fairways.

"Last year," says Rich, "I applied Eagle preventatively in April and again in September and didn't see dollar spot all summer."



Dave Anderson
Evergreen Country Club
Haymarket, VA

Dollar spot was also Dave Anderson's problem, as well as brown patch on his ryegrass fairways.

Christopher Nowack is turf equipment manager at Monroe Golf Club in Pittsford, N.Y.

Delhi mechanics school 'a success'

DELHI, N.Y. — A four-day Turf Equipment Mechanics Advanced Training School, the first program of its type at the State University College of Technology at Delhi, has drawn rave reviews from participants.

Sponsored this spring by Delhi College, the Golf Course Mechanics Association and the New York State Turfgrass Association, the program emphasized hands-on training for golf course mechanics in specialized welding techniques and troubleshooting turf-equipment electrical systems.

"Participants from around the Northeast who attended the program gave us very positive feedback," said Dominic Morales, Delhi College Plant Sciences Department chairman. "They were enthusiastic about attending an intensive workshop designed to update their skills."

The school is a spin-off of Delhi's new Turf Equipment Management program. The one-year certificate program, devel-

oped in concert with the industry, will train students to maintain, repair and manage the golf course equipment. It's a natural addition to Delhi's golf education curricula, according to Morales.

Strong golf industry support for Delhi led to the Turf Equipment Management program, according to Morales. "Industry support also results in more than \$100,000 each year in equipment donations from

leaders such as Jacobsen, Toro, John Deere and Ransomes/Cushman/Ryan," he said.

"There is a tremendous demand nationwide for trained technicians to maintain equipment on golf courses and landscape companies," Morales said. "In fact, there are about 50 job opportunities for every graduate of turf equipment programs."

For more information about the certificate program, people may contact the Plant Sciences Department Office at 607-746-4410 or the Delhi College Enrollment Services Office at 1-800-96-DELHI.

Hitch

Continued from previous page

on the piece of 4-by 1-1/2-by 3/16-inch channel, leaving the drawbar off center of the channel towards the bottom. Clamp the drawbar in place and weld it. Welding is a necessity in building this assembly.

When building this assembly, make sure that you weld the drawbar in place on the channel before the tubes. If not, the channel will warp from welding the drawbar and throw off the tubes from properly fitting into the receiver.

Cut off the piece of the drawbar that remains protruding from the back of the channel if you want to.

Then, using the receiver (part #897007) as a template, install the two tubes and four pins (part #882770). Stand the assembly upright and place your piece of channel with drawbar onto the two tubes. After placing the channel on the tubes, make sure the tubes are flush with the end of the channel and that the tubes are off center in the channel, with them being about 1/2 inch from the bottom angle. Tack-weld the tubes securely in place.

Remove the four pins from the receiver and remove the hitch. Finish welding the tubes securely to the channel. When you are finished, the hitch assembly should slide into the receiver and fit with no problem.

Finally, to install the receiver on the Cushman, remove the bed for the ease of accessibility to the rear frame area. Remove both rear shocks and slide the receiver (part #897007) into place.

All of the mounting holes should already be drilled in the Cushman frame and the receiver. Install 3/8-inch bolts in all the holes and tighten. Reinstall the shocks and then slide your hitch in place. Install the four pins with clips. Reinstall your bed.

You now have a heavy-duty, removable hitch that will allow you to tow all of the things you normally tow without having to fight to install the draw pin or the worry of operators turning too sharply and causing damage.

If you have any problems or questions, please feel free to contact me at 155 Golf Ave., Pittsford, N.Y. 14534; work phone 716-381-4494; home phone 716-425-9142.

to work for you.

Dave is superintendent at Evergreen Country Club in Haymarket, VA.

"I used Eagle exclusively on the fairways," he says, "and they were the best fairways I've ever had, especially considering the extreme heat."

"Late in the year," Dave continues, "I alternated Eagle with a contact fungicide to control gray leaf spot and got excellent results overall."

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appreciated its outstanding turf safety, low-use rates and water-soluble packaging.

"I don't have the safety concerns with Eagle that I do with other sterol inhibitors," says Mike Jones. "And rates are so low, I have the flexibility of using it in the fall if I need to."

The flexibility of Eagle is further enhanced by the new extended spray schedule—now up to 28 days.

Those are powerful reasons for using Eagle. Dave Anderson gives the final word.

"Considering its length of control, low-use rates and cost,"

he says, "Eagle offers the best of both worlds."

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Hands-on, plus manager traits equal super's success

By MARK LESLIE

ROCKPORT, Maine — There are generally two kinds of superintendents, the director and the hands-on types, and the ideal is a combination of the two, said Terry Buchen.

Speaking to the Maine Golf Course Superintendents Association at Samoset Resort here,

the Master Greenkeeper and agronomic consultant was addressing the changing role of the superintendent.

In his travels around the country, the agronomic consultant said: "I am seeing two types of superintendents. One is the director type, who is more of an office administrator almost full-

time, not very hands-on, not very visible to the golfing elite, not on the golf course much, sometimes delegates too much authority, sometimes doesn't train assistants and turf students much...

"The second type of superintendent is at the other extreme. He is very hands-on, a Type A personality. He is always in con-

trol, doesn't delegate much authority, is extremely visible on the course, trains his assistants just enough to get by, turf students work there but don't learn as much as they would like to."

But the "ideal superintendent," Buchen said, is a combination of these two: a director type who delegates authority to

his or her assistants yet still has control, has faith in them, trains them properly, is visible enough on the course to know the conditions, trains turf students and enjoys doing it, keeps bureaucracy to a minimum, promotes from within, and communicates well with his or her crew.

Greatly increased mobility, Buchen said, has forever changed the life of superintendents.

"In the old days," he said, "superintendents would stay at a course 15, 20, 25 years. Today, superintendents are receiving bigger salaries, and that has occurred by supers moving. The average expectancy of a superintendent on a job is now six to seven years. One of the big reasons they move is to make more money.

"The interesting thing is that when they move, the person who replaces them usually gets higher wages than they were paid and often gets the equipment that they couldn't get, or even more equipment."

The advent of management companies in the 1980s — "when people realized golf was a money-making business" — has also brought major change to the industry.

"They are going to try to buy or manage every public-access course in the country," Buchen said, "and that's 70 percent of the courses in America."

The impacts, he said, include:

- Some of those companies will fire the entire staff and make them reapply for their jobs. If those staffers are rehired, it will be for less money, he said.
- Some also remove health insurance from the benefit package, or make employees pay part of it.
- Many will reduce the superintendent's salary, Buchen said, adding, "To do that, they promise a job for life."
- Many times their budget is bare-bones minimum.

Buchen said there are far too many turfgrass students and assistant superintendents for the jobs available. And many of them do not have the background experience expected in the past when, he said, most colleges demanded three seasons experience before a student could even be considered for acceptance.

In the face of this, golf pros, club managers and some superintendents now want to be general managers, he said. At some clubs this leads to "a lot of friction, especially where the superintendent, pro and manager are all equals."

While wages for superintendents are rising, so too are fringe benefit packages, he said. Most include moving expenses, interim housing, housing or housing allowance, a vehicle, retirement plan, performance bonuses, dues and conference expenses.

New, "in vogue" benefits are:

- discounts or free housing

Continued on next page

GOLF COURSE NEWS

SAND BARRENS GOLF COURSE, NEW JERSEY



When your greens are seeded with L-93, golfers will go through almost anything to reach them.

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L-93 features improved resistance to numerous turfgrass diseases such as dollar

spot, gray snow mold and brown patch. So it requires less fungicide in certain conditions than most other creeping bentgrasses. Its upright vertical growth and aggressive establishment helps prevent spike marks. And it's been ranked #1 overall best performing creeping bentgrass variety for the past two years.

So the next time your greens, tees or fairways need seeding, give L-93 a try. You won't believe how many golfers will come out to watch it perform.

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Steve Malikowski,
Golf Course Superintendent
The Sand Barrens
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Overall Turfgrass Quality Ratings	
1996 NTEP Trials, Putting Greens	
L-93	6.6
Penn A-4	6.5
Providence	6.3
Penn G-6	6.2
Pennlinks	5.9
SR 1020	5.9
Regent	5.8
Pro/Cup	5.7
Penncross	5.4

Turfgrass Quality Ratings: 9 = Ideal Turf
LSD = 0.2
Page 8

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Keeper of the Green, Maples leaves lasting legacy

By MARK LESLIE

LAWRENCEVILLE, Ga. — Some know him for his SOS, or his SPOs with the GCSAA or USGA. But, the acronyms aside, Palmer Maples Jr. wears the mantle "Keeper of the Green" above all others.

The former president of the Golf Course Superintendents Association (GCSAA) and Carolinas GCSA, and director of education for the GCSAA from 1976-80, Maples retired on his birthday, June 22. The members at Summit Chase Country Club here, where he served as head superintendent for 16 years, honored him that day with a special celebration. They also planted a red sunset maple tree off the 6th fairway and unveiled a plaque on a 2- by 3-foot granite block declaring: "Palmer Maples Jr., Keeper of the Green, 1981-97."

"I wear that label proudly," Maples said. "I apprenticed with my father, who apprenticed with Donald Ross, who apprenticed with Old Tom Morris. And at St. Andrews, Old Tom was known as 'Keeper of the Green.'"

In his semi-retirement (he will still consult), Maples said he will be known for his status as an SOS: Second Opinion Specialist. "I haven't been bashful about giving an opinion," he said. Indeed, his new business card gives him the SOS moniker.

As for his SOPs (Standard Operating Procedures), superintendents will recall how he brought order to GCSAA headquarters while president in 1975, with a number of SOPs covering such areas as education, membership, conferences and personnel matters.

But when that memorial maple tree grows and starts blocking shots into the green, Maples laughs, "people will start remembering me and it won't be because of that plaque."

His true legacy, Maples feels, is that: "I tried to share whatever I knew. I haven't been bashful about giving an opinion. Since age 12 working for my father, I've learned. When you learn something, make application of it and pass it on."

Indeed, communication has been the key improvement in the industry, he said.

"A lot more information is now available and being generated," he said, "and that information has been communicated by the different associations to their members and from member to member. There is a tremendous opening in communications: e-mail, the Internet, print media, pictures, videos, field days ..."

Maples added superintendents today are making "a better presentation now."



Palmer Maples Jr. stands next to the maple tree dedicated to him and a plaque in honor of his years as 'Keeper of the Green' at Summit Chase Country Club.

"They've always been good people—entrusted with the care of the golf course—and have tried with the means of men, money, equipment and time to improve the condition of the golf course," he said. "But now they are more informed and communicating better in front of an audience. They appear more of a professional rather than someone who happened to be farming in the area when the golf course was built."

"The profession has changed—from a golf course caretaker to someone who is superintending a reasonable amount of money and the property, plus protecting the environment."

What does the future hold?

"I see education and communications growing, and the business end perhaps outgrowing the agronomic end," Maples said. "Today's superintendent hasn't faced situations of 40, 30, 20 years ago when there was a lack of information. There is a different set of problems today. Many products aren't available now. The grasses are different. But people are speaking to those situations and when they find an answer they will announce it. The education community has played such a large part in collecting and distributing information as needed."

After graduating from the University of Georgia 38 years ago, Maples worked as assistant and head superintendent at Charlotte



(N.C.) Country Club for 11 years, then took the superintendent post at The Standard Club in Duluth in 1970. It was during that tenure, in 1975, that he was elected GCSAA president.

A year later he accepted the job as GCSAA director of education, a position he held for four years.

He also served on the U.S. Golf Association (USGA) Green Section and the USGA Award Selection Committee, and is a member of the Donald Ross Society and GCSAA Historical Committee.

His return to green-keeping proved to Maples that he was "a lot more comfortable and more active working on a golf course than in an office situation. And the association was growing well at that time. I found a job here, that the Lord worked out ..."

And that job gave him the most satisfaction, he said, in providing "a pretty golf course for the golfers to enjoy. My greatest job has been satisfying the golfer's desire for a well-conditioned course, so they could play the game according to the rules."

"That means keeping the fine sand edge, having the hazards marked, keeping trash out of the way, placing the cup correctly, and especially see the ball have that extra roll when the greens are fast."

Membership here must have felt Maples did this all well. In 1988 they began an annual spring


"appreciation tournament" for their head superintendent.

Yet, awards, presidencies and jobs aside, the highlight of Maples' career, he acknowledges, was when he played the home course of the original Keeper of the Green, Old Tom Morris' Old Course at St. Andrews. "That," he said, "now that was special."

Super's success

Continued from previous page

- lots;
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Curly mesquite may be grass answer for some

MARANA, Ariz. — Facing Arizona's tight water restrictions and striving to incorporate native grasses into their property, the architect and developers of The Links at Continental Ranch Golf Club here are using curly mesquitegrass and purple three-awn. It is believed to be the first time they have been used on a golf course.

Curly mesquitegrass is a drought-tolerant turf that can survive the 4 to 5 inches of rainfall a year common in the Southwest, and so it was a natural choice, said course architect Brian Huntley.

"I was essentially given a blank slate from which to create an authentic Scottish-style golf experience," Huntley said. "In the traditional links layouts of Scotland, courses are surrounded by heather and gorse. Curly mesquitegrass and purple three-awn will essentially serve as the heather and gorse for The Links at Continental Ranch..."

The two grasses are being used to accent the fairways. Curly mesquitegrass can grow as high as 6 to 8 inches when not mowed. It can, however, survive as low as 2 inches. Its growing season lasts from March to October. Planted in tufts, it sends out slender stolons, which in turn produce new tufts. The internodes of the stolons are wiry and measure 5 to 20 centimeters long. Its blades tend to be flat, usually 1 to 2 millimeters wide,

and have a scabrous look to them.

University of Arizona Prof. David Kopec studied curly mesquitegrass in the late 1980s, after gathering some of it in the desert. It showed potential to become an arid-region turf. Now the test is on.

Pacific Golf Management,

which is managing the facility for the owner, Southwest Value Partners, intends to open the course in November. It is part of an 1,800-acre master-planned community northwest of Tucson.

Curly mesquitegrass is hydroseeded at The Links at Continental Ranch Golf Club.



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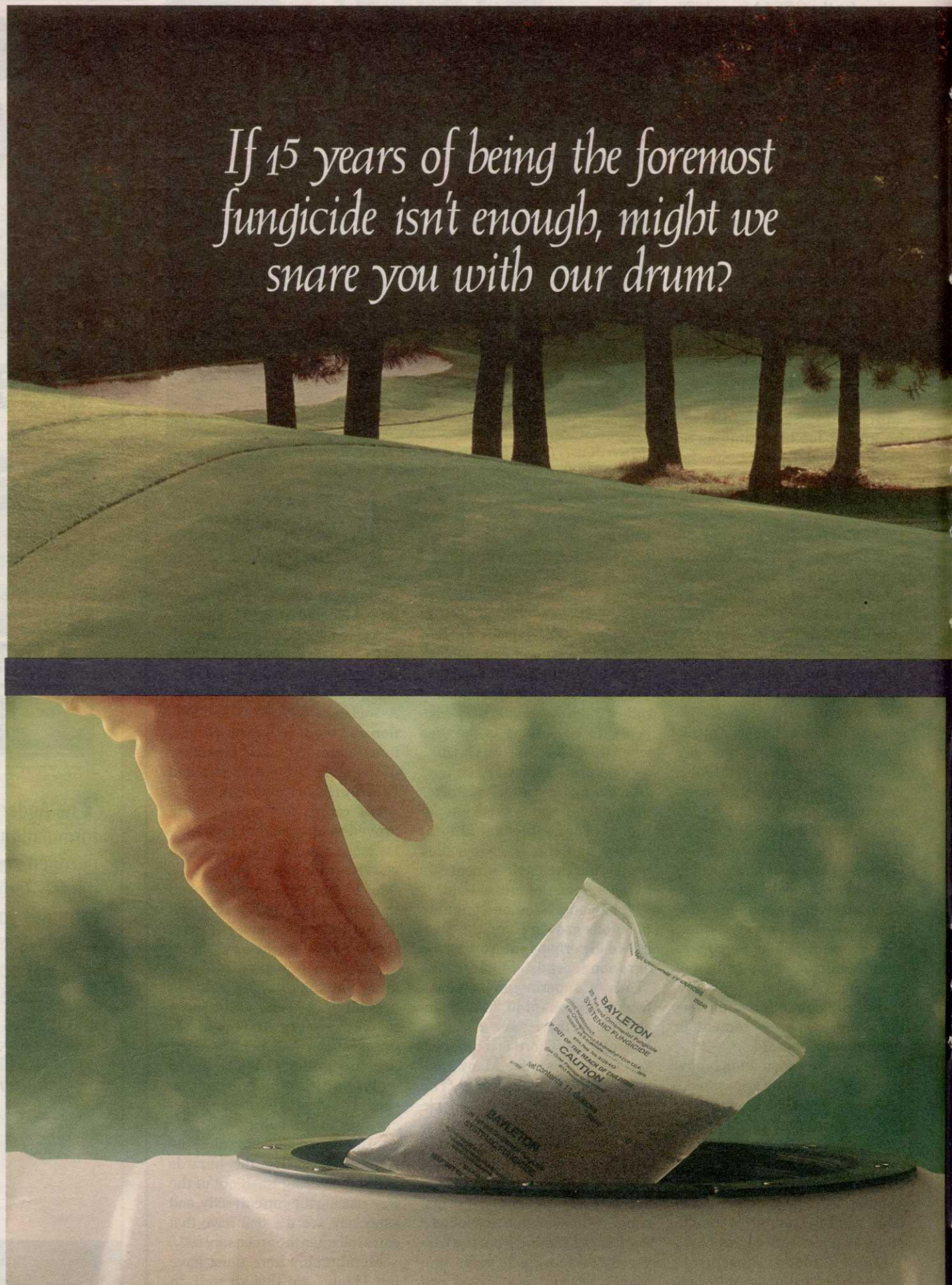
Moncrief Scholars chosen by Georgia GCSA, Foundation

ATLANTA, Ga. — Four students from the University of Georgia (UGA) and four from ABAC have been named recipients of Monty Moncrief Memorial Scholarships, awarded to students in the field of agronomy and turfgrass research.

The Moncrief Scholarship Program is sponsored by the Georgia State Golf Foundation, with assistance from the Georgia Golf Course Superintendents Association.

Selected from UGA are Jim Evans of Keene, N.H., Brent Miller of Savannah, Phil Petit of Woodbine and Max Schlossberg of Athens. Selected from ABAC are Jason Bridges of Perry, Wayne Johnson of Albany, Bryan Moore of Tifton and David Prescott of Fitzgerald.

For further information regarding applying for a Moncrief Scholarship, or making a donation to the program, people may contact the Georgia State Golf Foundation at 770-612-1788.



Conner succeeds Maples at Georgia's Summit Chase CC

LAWRENCEVILLE, Ga. — **Craig Conner**, who began his career at Summit Chase Country Club here and returned as an assistant superintendent 2-1/2 years ago, has succeeded **Palmer Maples Jr.**, who retired in June. Conner worked at Summit Chase as a college student in 1986 while attending Georgia

State University as an English major. He graduated in 1988 and joined the Summit Chase staff full-time until taking an assistant's post at Monroe (Ga.) Golf and Country Club. He holds a two-year degree in environmental horticulture from Gwinnett



Technical Institute. ANGELS CAMP, Calif. — Vowing to balance the course with its natural surroundings in "complete respect for the environment," **Scott Bower** has taken the superintendent post at Greenhorn

Creek Golf Course here.

Bower was assistant superintendent at Twelve Bridges Golf Club in Lincoln which hosts an annual LPGA event, and at 27-hole Amherst Country Club. He holds a certificate in turfgrass management from Michigan State University.



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CIRCLE #102

NEWCASTLE, Wash. — **Phil Niederbremer** has been named superintendent at The Golf Club at Newcastle, an upscale, 36-hole public-access facility under construction in this Seattle suburb.

Before joining Newcastle, Niederbremer was on the executive management team and served as director of golf course operations at Loomis Trail Golf Club in Blaine.

A 1989 graduate of Colorado State University with a degree in horticulture with a turfgrass concentration, his golf industry experience dates to 1980. He has held positions as foreman for the course architect at Fox Acres Country Club in Colorado, supervisor of landscaping at Fox Acres, and assistant superintendent at a public course in Kansas.

The first 18 holes at The Golf Club at Newcastle, designed by Bob Cupp, are expected to open next spring.

BEALLSVILLE, Md. — **Ray M. Viera**, former first assistant superintendent at Shinnecock Hills Golf Club, has been named superintendent at Four Streams National Golf Club here, the first signature golf course design of Nick Price. The upscale, public-access, 18-hole course is scheduled to open in spring 1998.

An assistant at Shinnecock Hills for five years, Viera participated in regrassing the course and an extensive irrigation upgrade in preparation for the 1995 U.S. Open. Most recently, he oversaw grow-in of the new Somerset Golf Club in Fredricksburg, Va.

He also served as superintendent for the 36-hole Palm Aire Spa and Resort in Pompano Beach, Fla., and held agronomic positions at Fox Hill Golf and Country Club and Westchester Country Club, both in New York.

JACKSON, Ga. — **Tommy Bowman**, formerly at Thomaston Country Club, is the new superintendent at Hickory Hills Golf Club here.

Also in Georgia:

- **Doug Webb** has left The Moors Golf Club in Milton, Fla., to take the superintendent position at Grand Island Club.

- **Chris Paire** is the new superintendent at Bradshaw Farms in Woodstock, which has been bought by American Golf Corp.

- Hickory Ridge Golf Club in Thomaston has hired **Shannon Marion** as head superintendent.

- **Gerald Cox** is the new superintendent at Horseleg Creek Country Club.

BIRMINGHAM, Ala. — Mountain View Golf Club here has hired **Shannon Crabb** as the head superintendent. Crabb had been assistant superintendent at Green Island in Georgia.

Irrigation: Ready to leap forward?

By BRUCE SHANK

Irrigation's place as a management tool for golf courses is taking a quantum leap forward.

Advances in golf course irrigation now outpaces the ability of many courses to stay current, while the golf course irriga-



Watering time at Merion Golf Club in Ardmore, Pa.

tion specialist is evolving from a specialized plumber into a database manager.

With this progress, however, a number of questions arise. Does your course require state-of-the-art irrigation technology to meet modern standards for quality of play?

Pick a standard, then decide. But one

Bruce Shank works with Irricom, the communications arm of the Fairfax, Va.-based Irrigation Association

fact remains constant: top-shelf golf requires state-of-the-art irrigation.

The plant palette on elite courses is complicated and microclimates abound. The superintendent needs to track every influence on every microclimate on his course to deliver superior playability.

Today's central controllers can do that, providing the water distribution system is equally sophisticated.

Standards for play are increasing across the board. Manual, quick-coupler irrigation falls far short today. Ironically, quick couplers are now used predominantly to give irrigation managers the flexibility they can't get from their automatic systems.

They give them the ability to stretch their systems to meet the needs of plant material in more complicated golf course designs. That tells us that average automatic irrigation systems are falling short on a growing number of courses.

Meeting standards on existing courses is one thing. What about future courses?

The greatest limiting factor to the expansion of golf is water. To maintain the growth of the game, golf courses will be

Continued on page 50

Sulfur dioxide generator to the rescue

By PETER BLAIS

CHARLESTON, S.C. — "It would have made life a lot easier to have this sulfur dioxide generator before the Ryder Cup." — George Frye, superintendent, Kiawah Island's Ocean Course

While the golf world focused on the drama of watching the Americans win back that coveted trophy from the upstart Europeans six years ago, Frye's attention was on the beleaguered turf and trees that were suffering from irrigation water with pH levels of 9.0 and bicarbonate levels running upwards of 1,100 parts per million.

According to Dr. Thomas Ruehr of California Polytechnic University, when the pH level is above 7.5, large amounts of nitrogen evaporate from the water into the air through a process called ammonia volatilization. Nitrogen fertilizer efficiency is reduced and soil-borne plant pathogens frequently multiply in high pH soils. This is all bad news for turf.



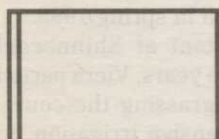
George Frye's favorite new toy

"Only 30 to 40 percent of the irrigation water we put on the course was available to the grass [back in 1991]," Frye recalled. "We needed to do something."

Frye researched the problem and came to the conclusion that a sulfur dioxide generator was the way to go. According to Ruehr, sulfur dioxide positively affects water by reducing pH, dissolved oxygen, carbonate and bicarbonate levels. It also buffers against the aggressive effects of four

Continued on page 50

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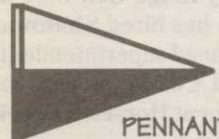
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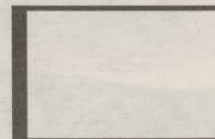
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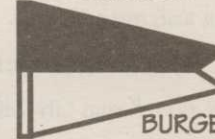
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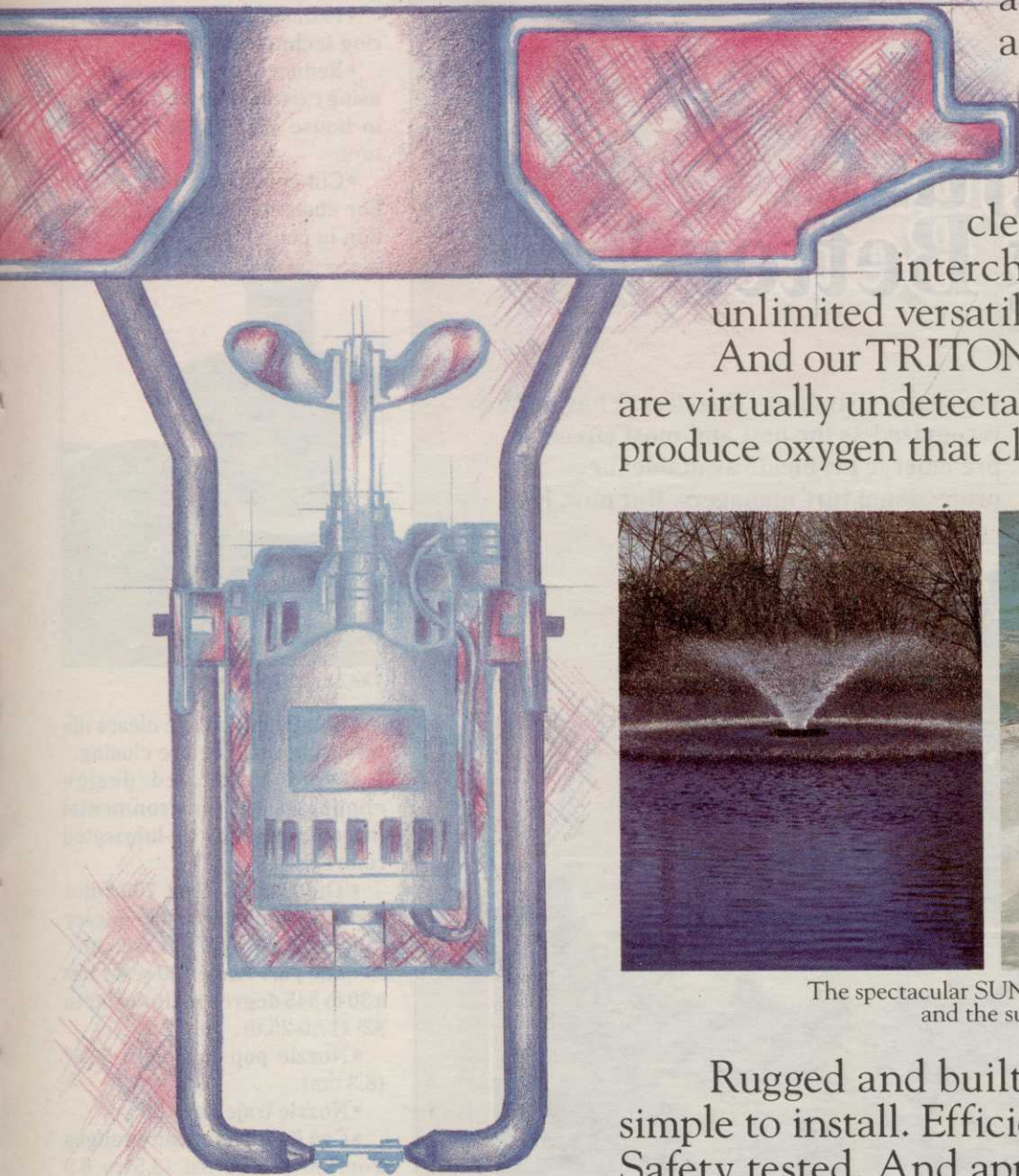
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Toro's SitePro goes into beta testing

The Toro Co.'s Irrigation Division has its new SitePro computerized central irrigation control system up and running at 25 beta test sites around the country.

First introduced at the GCSAA show in Feb. '97, SitePro promises to handle hydraulic designs through the Windows 95 interface and Toro's exclusive

Electro-Flow feature.

Additionally, Toro's T Wizard set-up will feature a fast and flexible way to set up an irrigation system without touching a keyboard or spreadsheet. The system also features graphical system status at the station level. For more information contact Toro at 909-688-9221.

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Watertronics modularized skid construction now features integrated filters and fertigation units for its pump station.

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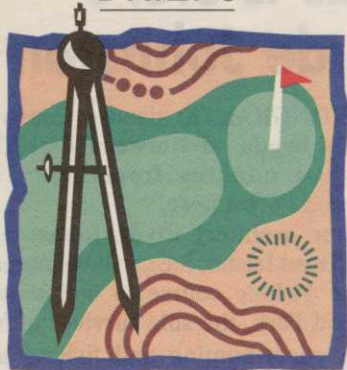
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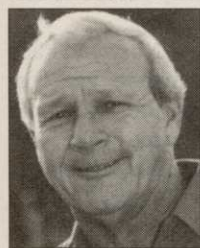


KAVANAUGH SIGNS ON IN AURORA

AURORA, Colo. — The city's Golf Division has retained Kenneth M. Kavanaugh Golf Course Design of Tucson, Ariz., for The Homestead at Murphy Creek, an 18-hole, daily-fee course. Projected construction date is in the fall. Meanwhile, Kavanaugh is renovating Desert Forest Golf Club in Carefree, Ariz., and adding nine-hole expansions to the existing 27 at Gold Canyon Golf Resort and his existing Quail Creek CC in Green Valley, Ariz.

PALMER PROJECT UNDERWAY

COLUMBUS TOWNSHIP, Mich. — Ground has been broken at the Arnold Palmer-designed Dunes Columbus National Golf Course. Columbus Development is planning a facility with limited residential development. The 18-hole course will take advantage of the natural features of the site, which include sand dunes, lakes and wooded ravines.



Arnold Palmer

MEADOWBROOK REOPENING

ST. LOUIS — Meadowbrook Country Club underwent a major renovation here last summer and will reopen this month. Keith Foster was retained to redesign the private club, which included work on all tees, greens and bunkers.

Phillips leaves Jones, starts own practice

By MARK LESLIE

GRANITE BAY, Calif. — Like the Marines, Kyle Phillips is looking for A Few Good Men — owners, that is.

Phillips has opened his own golf course design firm, leaving his position as vice president of design with Robert Trent Jones II after 16 years with the Palo Alto firm.

"I've worked on a lot of different sites — in the Caribbean, Europe and domestically and tackled a lot of problems," Phillips said. "That experience will be helpful. But the owners are very important, and it's crucial to get owners who are not only supportive in the design and construction process, but also in the operation of the golf course including the maintenance, which is so important."

Phillips, 39, has designed about 25 courses since joining Jones shortly after graduating from Kansas State University with a landscape architecture degree. Two of those courses, in particular, he said, reflect what he hopes to continue doing: Wisley Golf Club in London and Granite Bay here.

"They provide very interesting, strategic design, particularly from the opening tee shots," he said. "A lot of the new courses we tend to see today have bracketed [perimeter-weighted] bunkers and you feel you're hitting driver between the uprights on every hole. I've always tried to make the straight shot available, but add the factor of risk and reward, awarding a carry or 'shape' shot..."

"What you find is not only interesting for people who hit



Kyle Phillips at work on site.

the ball a long ways but also for average club member, because with that type of design there is a bailout position for the high-handicapper."

A fan of such classical architects as Alister Mackenzie and A.W. Tillinghast, Phillips said he incorporates their "mid-bunkering" ideas into his designs.

Continued on page 40

Dream design course taking students to Ireland

DETROIT — Golf course architect Ray Hearn is presenting a seminar and itinerary "An Introduction to Golf Course Design on Location in Ireland," Sept. 5-13, that will kick off at Royal Portrush and wind up at Waterville.

The series of seminar and discussion sessions is being coordinated in conjunction with Michigan State University (MSU). Dr. Warren J. Rauhe, MSU professor of landscape architecture, will co-teach.

"The true seaside links of Ireland and Scotland are a must-see," said Hearn from his headquarters in East Lansing. "This trip will be a pilgrimage for anyone inter-

ested in golf course design."

"As a young architect, these courses made a major impact on my design philosophy," added Hearn. "There are so many lessons to be learned over there, to understand why these courses are sought out by so many people around the world."

Participants will play, study and discuss Royal Portrush (Dunluce), Royal Country Down, Portmarnock (Championship), Lahinch (Old), Ballybunion (Old) and Waterville.

Some of the topics that will be covered in the traveling seminar include:

- The history of the game, golf course

architects and Irish golf courses.

- Design and strategy.
- The design/construction process, course routing and greens/tees/fairways/hazards.
- Design your own golf course.

A certificate will be given upon completion of the course.

Hearn established his golf course design firm in 1996 after working 10 years with Michigan architect Jerry Matthews.

For more information contact Ray Hearn in writing at Raymond Hearn Golf Designs, Inc., 271 Woodland Pass, Suite 200, East Lansing, Mich. 48823.

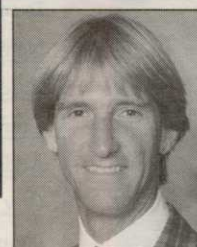


The 18th green complex at Oak Hill Country Club's East Course in Rochester, N.Y., got a Craig Schreiner facelift in 1994. It included bunkers — renovated into the classic style and with resodded faces — and contouring at the rear of the green.

Craig Schreiner is one of a handful of golf course architects who hold degrees in turfgrass management (Ohio State University at Wooster in 1974) and landscape architecture (Oregon State in 1975). He

also worked for Wadsworth Golf Construction Co. and for designers Don Sechrest (from 1985-88) and with Dr. Michael Hurdzan before forming Schreiner Design in 1990.

His Stone Creek Golf Course in Tulsa, a collaboration with Sechrest, and Cobblestone Creek Country Club in Victor, N.Y., assisting Hurdzan, have received high praise.



Q Schreiner shines on 'classics' & new work

Golf Course News: You came to the design business prepared through agronomy and landscape training. How important is that combination?

Craig Schreiner: It is the most important part of my background, the main reason why I have been able to get on my feet. It was custom-designed by Mike Hurdzan. I did everything he told me to do. And you know what, it worked. There are a lot of individuals who have segments of it. But very few who have all of them. Get a turf degree and learn how to maintain a golf course. That was a real eye-opener. I learned so much at Baltimore Country Club under [then-superintendent] Meryl Frank in summer of 1983. Then a year working construction for Wadsworth [Golf Course Construction Co.].

GCN: How does your agronomic train-

Continued on page 38

Arthur Hills designing his 1st course in England...

WATFORD, England — The golf course architectural firm Arthur Hills and Associates will design its first British project here northwest of London.

Ground has not yet been broken on The Grove at Watford, a proposed 18-hole resort course. Developed by The Ralph Trust, The Grove project remains in the permitting process.

The par-72 course has been routed on rolling terrain along the River Gade and in close proximity to the Grand Union Canal. At press time, developers still owed presentations to the environmental groups English Heritage and British Waterways.

"The developers are involved in several exclusive hotel facilities in the London area," said Hills Project Manager Drew Rogers. "A hotel will be attached here, in addition to a conference center and state-of-the-art practice facility."

"It will be the first development of its type in the London area, as far as being a resort, conference center and hotel facility," Rogers continued. "The course will be unique, but we're trying to maintain the traditional English landscape. It fits very well into the terrain. Hopefully, this will be the beginning of other opportunities over here."

A course contractor has not yet been retained, said Rogers.

...as is S.C.'s Clyde Johnston

NOTTINGHAM, England — Construction has begun on Norwood Park Golf Club just minutes from legendary Sherwood Forest here.

Course architect Clyde Johnston of Hilton Head Island, S.C., will be integrating the 18-hole course in and around Norwood Park, the sole survivor of four

deer-hunting and fishing preserves that date back to c.1250. The earthwork and moat that surrounds the original 100-acre park — designed to keep wild-life inside — is still visible.

The daily-fee facility will have four holes inside Norwood Park, several of which will play across centuries-old fishing ponds and earthworks. In keeping with the legacy of the property, Johnston will employ a minimalist design scheme, foregoing sand bunkers and working strictly with natural grass swales and depressions around green sites. A signature of the course will be the framing effect provided by scores of medieval English oaks.

In recent times, Norwood Park has been landscaped with orchards, gardens and additional ponds. It is the home of Sir John and Lady Starkey, who open their estate to tours during the summer. The Starkeys reside in a manor home that dates back to 1763 and originally served as a hunting lodge.

Paragon reorganizes management team

NORTH PALM BEACH, Fla. — Paragon Golf Construction, Inc. has announced its new corporate management team. John Boyd was named president of the specialized construction company.

Other executives appointed at Paragon Golf & Construction include: Sal Rodriguez, vice president of western North America and Latin America; John Copeland, vice president of eastern North America and Canada; Chris Curbello, operations and project controls manager and John Mueller, vice president of business development.

Boyd brings more than 17 years of experience in the areas of commercial and mixed-use projects. He has been with Paragon since October 1996 as chief operating officer. Beforehand, he was vice president and country manager for Parsons International Limited.

"Our overall goal at Paragon is to provide quality work for your clients in the areas that we specialize in, namely project management and golf course construction. We plan to dominate in these services for resort and golf-related developments," said Boyd.

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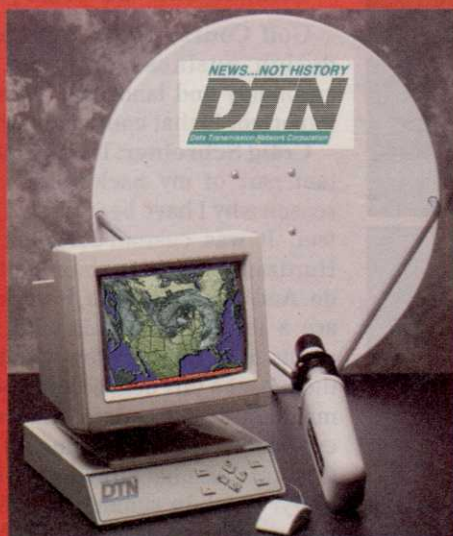
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von Hagge takes progressive look to Spain, Italy

By MARK LESLIE

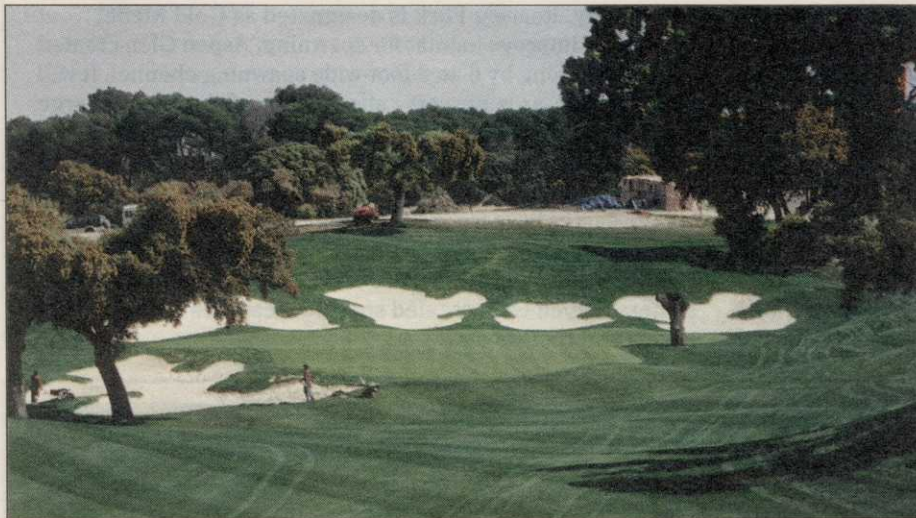
MADRID — Two golf courses that architect Robert von Hagge considers "as good as we've ever done anywhere" opened within a week of one another in June, here in Madrid and in Bogogno, Italy.

Real Sociedad Hipica Espanola Club de Campo opened its first 18 holes here June 14. Seven days later, Circolo Golf Bogogno, situated west northwest of Milan beneath the Alps, opened its first 18 holes. Both facilities will expand to 36 holes, the Milan course to open in mid-1998 and the Madrid course in 1999.

One of the top clubs in Spain, Real Sociedad Hipica Espanola Club de Campo is moving its headquarters from downtown, where urban sprawl has affected its property, according to von Hagge. It is an equestrian and golf club with 4,000 members.

Situated on "severe" topography, the course boasts "17 wonderful golf holes," said von Hagge co-designer Rick Baril. "When you have 17 out of 18 that are great, you're happy."

Developers followed unprecedented environmental and administrative negotiations on the project in the eight years



Real Sociedad Hipica Espanola Club de Campo is moving its headquarters from downtown Madrid, where urban sprawl has affected its property, to this, its new golf course.

since buying the property.

"Some of the oak trees are 300 to 400 years old and we had to preserve 90 percent of them," Baril said. "It has great charm ..."

"Great golf holes on great golf courses are on great pieces of property," said von Hagge. "The backgrounds of these holes are outstanding."

Since the clubhouse had been situated on the highest mountain on the property, there was a particular challenge in designing the course. Instead of using the valleys and ridges, von Hagge and Baril had to cut holes across the valleys and break through the ridges.

Nevertheless, "it turned out well," von Hagge said.

The clubhouse at Real Sociedad Hipica Espanola Club de Campo is under construction, and work on the second course should begin next summer, Baril said.

Baril said the property for the second course lends itself to a better design because of its clubhouse location.

"Fifty percent of a design is tactical excellence and 50 percent is beauty," he said.

The second course will finish facing the sun, which breaks an old rule of design. But von Hagge argued: "There's no greater beauty than back lighting. So if you're 15 percent to the left or right of it, a finishing hole is quite memorable."

...

At Circolo Golf de Bogogno, Baril and von Hagge "created something better than anything else we've done over there," von Hagge said.

Citing Rinato Veronesi of developer Tio Tip for his preparations on the project, von Hagge said: "He allowed us to do what we wanted to do. And it's spectacular."

The land is ideal for golf, he said. "It possesses rolling hills, marshes, creeks — a kaleidoscope of experience, physically, with the Alps in the background when you look north and west."

Earth-moving was taking place on the final nine holes in mid-April, Baril said.

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Nicklaus' Aspen Glen targets trout, eagles — and golf

CARBONDALE, Colo. — Boasting an American bald eagle protection plan and trout habitat program, The Aspen Glen Club now has unveiled the first nine holes of an 18-hole golf course co-designed by Jack Nicklaus and Jack Nicklaus II.

The nine holes, which will be holes 10 through 18, feature views of Roaring Fork River and 13,000-foot Mt. Sopris. In fact, the 15th hole frames the river and mountain, drawing Nicklaus' comment: "What a great tee shot. Who wouldn't like this view?"

Aspen Glen anticipates opening the front nine this fall.

The course opening celebration, on July 4, featured a fly-fishing exhibition on the river, fishing being a draw to this golf

community. Roaring Fork is designated as Gold Medal trout waters. To improve habitat for spawning, Aspen Glen created a 1,400-foot-long by 6- to 8-foot-wide spawning channel. It will also function as a nursery, allowing the fish to grow large enough to improve their survival rate on the river.

Aspen Glen also stabilized a 400-foot section of eroding riverbank, using logs, willows and grasses.

Bald eagles have frequented a spot along the river since the 1940s. In coordination with the Colorado Division of Wildlife, U.S. Fish and Wildlife Service and Garfield County Commissioners, Aspen Glen created specific measures to protect the eagles and their nests.

COMING TO AMERICA

Graham Marsh sets up shop in U.S.

KANSAS CITY — Graham Marsh, winner of the 1997 Nationwide Senior Golf Championship and 60 tournaments around the world, will be seeing more of the American landscape than the fast greens of the Senior PGA Tour.

The Australian is expanding his 10-year-old golf course design firm into North and South America by forming an alliance with HNTB Architecture of Kansas City. The alliance will be known as Graham Marsh Golf Design (USA)/HNTB Golf.

Until this year, Graham Marsh Golf Design (GMGD) had worked exclusively in Australia and the Pacific Rim.

The new alliance has actively been looking at projects in Missouri, Hawaii, Virginia, Maryland, Kentucky, Michigan and California.

"In addition to playing golf on the Senior PGA Tour in America and having some success, I wanted to be part of the aggressive golf course market here," Marsh said. His design firm has completed 30 golf courses and has 15 courses under construction, all in Australia, Japan, Malaysia, Indonesia, China, the Philippines, South Korea and Micronesia.

HNTB Architecture has been planning and designing golf communities for 20 years. Since 1990, HNTB has worked as a consultant to Tom Watson on several golf courses, including the Tom Watson Golf Course in Miyazaki, Japan, and Yashima Country Club in Awano, Japan. HNTB also has been actively designing projects in Missouri, Indiana and Washington and opened the Blue River Golf Academy in Kansas City in June.

"HNTB has the experience I was looking for," said Marsh of his new partner. "The firm has diversity in its practice — architecture, engineering and master planning — and excellent golf course experience working with Tom Watson for the past seven years. It is an exceptional architecture, engineering and planning firm."

Chris Dimond, director of course architecture at HNTB, also sees the two firms as a great fit for targeting some of the thousands of golf courses planned for the next decade.

"Graham's reputation as an international golfer and as an outstanding designer in the Pacific Rim is invaluable," Dimond said.

Dimond also finds a unique compatibility in the computer and communication technology that both firms use in course design. "Over the past six years Steve Bauer, HNTB's senior golf architect, and Richard Chamberlain of GMGD have developed the world's most sophisticated computer-aided design applications in the golf design industry," he said. "I don't think anyone uses computers to the magnitude that we do. The new alliance uses computers to control earthwork costs, enables Marsh to review designs from remote locations while on tour and produce 'fly-throughs' of designed golf holes for owners as well as to produce design documents."

"Winning on the Senior PGA Tour and designing quality golf courses are my two main objectives in America," Marsh said.

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World Golf Village taking shape in Fla.

ORLANDO, Fla.—Vistana, Inc., a developer and operator of vacation ownership resorts, reports that construction is underway at its 25-acre, 408-unit ownership resort at World Golf Village, a premier tourism, business and golf destination under development near St. Augustine. Vistana Resort at World Golf Village will be the only vacation ownership resort on the property which is expected to attract as many as 1 million visitors per year.

The World Golf Village will be located within the 6,300-acre community of Saint Johns. The complex will become home to the World Golf Hall of Fame, the PGA Tour Golf Academy, the World Golf Resort Hotel & Convention Center, and includes a planned 54 holes of championship golf.

According to Vistana, Inc., construction will be completed in phases with the first 102 units to be completed by next spring. The resort will be situated adjacent to the World Golf Hall of Fame overlooking the 17th and 18th fairways of "The Slammer and The Squire" golf course, named for Sam Snead and Gene Sarazen, who provided design input.

"It is an honor to be affiliated with a project that is expected to become the centerpiece for golfers around the world," said Raymond L. "Rip" Gellein Jr., chairman and co-chief executive officer of Vistana. "Everyone involved in the conceptual development of the World Golf Village shares a common vision to create an environment offering championship golf, elegant shops and restaurants, and a variety of accommodations including whole ownership, hotels and vacation ownership."

The World Golf Village represents a collaboration on every level, from the major golf organizations and tours around the world to the participation of an elite group of development companies. Shell Oil Co. recently became the Founding Partner of World Golf Village.

Timberton adding 9 to McCumber's 18

HATTIESBURG, Miss. — The board of directors of Timberton Golf L.P. has decided to add a nine-hole layout at 18-hole Timberton Golf Club. "The Lakeview nine will be a tremendous addition to our facility," said Joseph Tatum Jr., president of Timberton Golf Club. "The entire team that helped develop our original 18 holes is present for the [new] design."

The original 18 holes, designed by Mark McCumber in 1991, will be named Valley and Creekside courses.

The Lakeview nine, expected to open in July 1998, is the creation of PGA Past President J.R. Carpenter and Director of Golf Ron Hickman.

Tim Burge of Burge Engineering is overseeing the project. The construction and shaping contract were awarded to Len Burge of Len Burge Land Development Services.

ST. IVES CONTINUES MICHIGAN BOOM

The Jerry Matthews-designed St. Ives Golf Club, which offers private membership but is open to public play, has opened in Stanwood, Mich., 55 miles north of Grand Rapids. Matthews overcame wetlands challenges and turned a former gravel pit into a collection of holes on this 186-acre golf course. Canadian Lakes Development Co. plans an accompanying residential and commercial project on 65 acres. The course plays from 4,821 to 6,702 yards and plays to par 72.



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Q&A: Schreiner

Continued from page 33
ing affect your design?

CS: Microclimates, and the importance of drainage. We are dealing with a different transition zone area and huge mature trees blocking the air and sun, relative humidities that are off the chart, heat indexes on several varieties of turf... Whatever season it might be, you lose poa, Bermudas and zoysias get hammered and blistering summers heat up the Northern grasses.

The agronomic studies helped me so much it's unbelievable. When I walk into a situation I'm immediately a friend of the superintendent. I'm familiar with the subgrade, the mixes, the soil pHs, when you have to grow in seed, how to maintain turf, what is safe and not safe. Cut 25,000 square feet of greens with a walk mower every day and you learn about drainage, what's too close for bunkering, how much sand gets swept up onto the green, what's a good distance between a bunker and green agronomically, what's safe, what kind of bunker design has washouts.

GCN: You've done some renovation work at Oak Hill preparing for tournament events. How did that expand your experience?

CS: At Oak Hill we have the Amateur next year. We renovated the entire Alice Creek on the East Course. We had to dredge it. We are creating a better environment and restoring by tenfold what was there. But we had to jump through the [regulatory] hoops. But it was to the satisfaction of the New York DEP. I had gained their confidence with the wetland work we did at Greystone and Cobblestone.

GCN: Working on the old classic courses must be satisfying.

CS: Yes, to get into a project like Oconomowoc, an old Donald Ross course left intact. I'm giving it a haircut and a shave, cleaning up a few holes, and it's turning out beautifully.

GCN: Do you have a pet project?

CS: Trees. I love trees — when they're in the right place. I spend 35 percent of my time on every master plan trying to educate people about overplanting and abuse of trees on golf courses.

The USGA has picked up the pace in pushing for removal of trees. Many courses could remove one-third of their trees and never know it.

I can talk to a green chairman and say, "Your job is not on the line here; the superintendent's is. Next time you drive by a sod farm count the trees and look at the quality of the grass. Do you want the Oconomowoc Arboretum or Oconomowoc Golf Club? We'll plant more trees, but the right ones in the right places."

When they understand that, they get in line. It's also very environmentally responsible. The more trees you have, the more fungicides and pesticides you use and the more your turf is stressed. IPM [Integrated Pest Management] has to do with creating optimal environments, and that doesn't include trees on the south and east sides of your greens and tees.

GCN: How would you describe

you design style? What do you like and not like?

CS: I really like playability. It's so important to have 45-yard landing areas, and an open approach to every green with an approach shot over 150 yards. It's so much fun to have the options to play the ball in a lower or higher trajectory depending on wind and pin placement. Playability is so important because that's where the creative part of

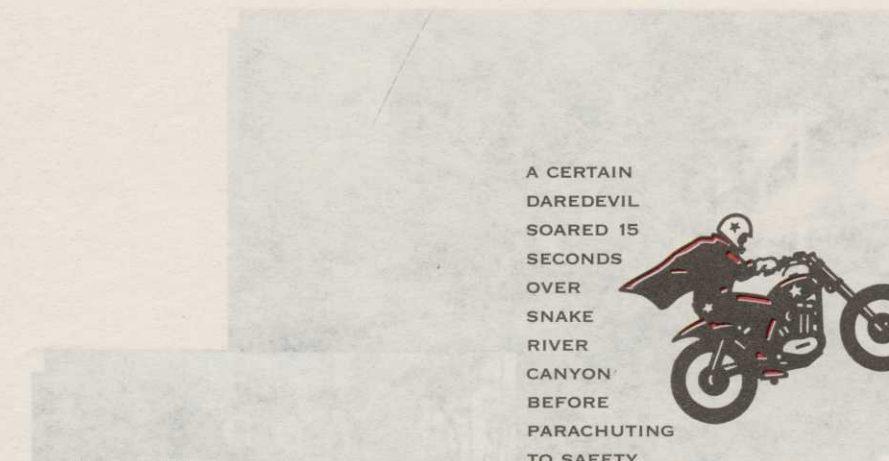
the game is. If you restrict shotmaking you've lost all individual creativity. And that's the mystique of golf. That's the thing that makes fanatics out of us: the fact that we get to create a golf shot, if the architect gives us the option to create a shot. You have that happening in the classically designed courses. They give you alternate routes and enough room to go around it.

In the '90s and turn of the

century you will see more playability in our golf courses, if you haven't seen it already. A good example is some of the greens we've done. The heart of every golf hole is the green. In architecture, that's go to be paramount.

The key is many, many pin placements. The degree of slope and area of the pin placements are critical. The square footage of the pin placements is key,

Continued on next page



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Q&A: Schreiner

Continued from previous page

because that tells you where you need to be in the fairway. That influences your approach shot. Knowing where the pin is that day will tell you where you have to be in the fairway...

The style of a great course is playable landing areas so you can find the ball, or have a degree of error that is acceptable

for speed of play or lack of frustration. And greens designed so it really does matter where the pin placement is that day.

At The National Golf Club, you can hit every fairway and shoot 100. But if you hit every fairway based on where the pin is that day, you may walk away with a 76.

Great courses usually have big greens. That movement on the green should always reflect surface drainage and that gets back

to agronomics. The great masters of greens design have both of those things going for them... [Donald] Ross, [Alister] Mackenzie, [A.W.] Tillinghast later in his career, Dick Wilson, [Robert Trent] Jones Sr., Stanley Thompson, [Seth] Reynor. That's what we did at Firestone. We renovated the 18 greens on the South Course, and took water off in at least three or four places of almost every green.

They are so perfect now.

GCN: You worked with Wadsworth Golf Construction Co. once you got your turf degree. How did that help?

CS: You have to gain construction experience that most lack; not showing up as a site representative but actually working on the construction. There's a big difference between building and showing up in penny loafers and a rental car. I worked at Val

Halla and the Fazio course at Barton's Creek [Austin, Texas].

I learned how to work and manage a site with construction equipment and where you can and can't go with it. I was in charge of a lot of siltation control, and it became a model for the area.

GCN: You're using computer design. Has it helped?

CS: We've made great avenues with the CADD system. Brett Hugo has done remarkable things with digital terrain modeling. It's more of a visualization for clients who can't formulate in their minds what we're doing. It's an incredibly accurate tool. It can give you very accurate construction figures. It's a very integrated part of our firm — a commitment technology. It helps tremendously with our production and cost-efficiency.

GCN: What does the future hold in store for you?

CS: Some very bright and positive things, I think. The advent of some new course work will probably be the best part of what we're doing. I would love to continue to work on new sites with our shaping company alongside other contractors. That will be our next goal and focus: an emphasis on new work. We are good at getting permits and being sensitive at how we route a course.

Perfect would be three nice new projects every year. That would be delicious. And I don't want to ever lose touch with restoration work. It's a pain but I love it. You learn a lot from the old courses. And there is satisfaction with solving difficult problems. I'm seeing a lot of practice facilities being built on older courses.

The thing we have to continue to do is keeping courses a lot more playable and at the same time keep a commitment to IPM. The environment is really important. The enhancement of wildlife habitat is going to be one of the easiest things to continue to do. Initially, from beginning to end on a new course, there are a lot of things you can do during construction to augment habitat. That's what we did at Greystone. In terms of reworking wetlands, in building certain lakes to build shallow shelf, letting certain areas transition to native areas, and introducing native grasses in the right spots. A little more enhancement goes beyond the golf playing area, and as you transition out of the other areas, then start to develop habitat areas and be more aware of how we can make the site work to a bigger dimension. It's not that hard to do.

The very first golf courses were in beautiful natural areas and laid out in that context. That's kind of where we're headed back. It's nice to see a resurgence and a Renaissance. It's a little tamer and more naturalized areas are the trend.

Continued from page 22

"I think," he said, "the classical golf course has a lot of elements not just at the landing area or at the green, but mid-landing. A lot of the interesting things that are going on are in the middle of the fairway. I think it's a lot of not only aesthetic value but strategic value so that players at all levels have different things to think about. It's a risk and reward game and strategic value for all players."

Phillips said his designs aim for the times and changes in the architectural concepts that are in the longer, more lines with which he's worked at the site of the newly built Club.

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Casper, Nash enter Lewis & Clark country with new track

GREAT FALLS, Mont. — PGA Hall of Famer Billy Casper and Phoenix-based Greg Nash have been selected to design the new Foothills Golf Club here.

The project, which will anchor a planned resort component, is being developed by Northwest Real Estate Development.

"I have been familiar with Greg Nash and have followed his work for the past 15 years," said Brian Smithling of North-

west Real Estate Development. "I think he is one of the finest, if not the finest, golf course architects operating today. His designs are beautiful, challenging and a pure joy to play. He and Billy are also very hands-on and take active roles in assuring the quality and integrity of their designs throughout the construction process. That means a lot to me as a developer, and it will translate into a great

experience for our guests."

The upscale, daily-fee golf course broke ground in July and should be ready for play by spring 1999.

The golf club is located in the heart of "Lewis & Clark country," between Glacier and Yellowstone national parks. The 7,000-yard, par-72 course will reflect the "wild and woolly" character of the land. Nash plans a parallel fairway design, with wide

landing areas, generous greens — averaging 6,500 square feet — and rolling terrain.

The fairways will be planted with cool-season turf, like bluegrass and fescue. Out-of-play areas will be accented by knee-high fescue and native grasses. The greens will all be bentgrass. Adding to the course's challenge will be more than 60 sand bunkers, 30 grass bunkers, several small lakes and dramatic golf holes like the 616-yard, par-5 9th and the 414-yard, par-4 18th which plays uphill to a green fronted by four bunkers.

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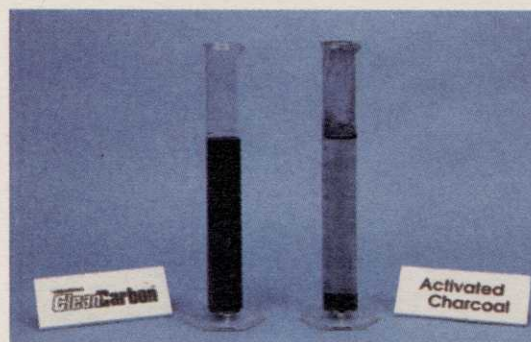
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Phillips on own

Continued from page 33

"Stylistically," he said, "the classical golf courses have a lot of bunkers not just at the landing areas or at the greens, but mid-bunkering. A lot of players find that interesting and challenging. I think it adds a lot of not only aesthetic value but strategic value so that players of all levels have different landing areas. You create a risk-and-reward factor and strategic value for all golfers."

Phillips said his designs aim for the timeless and classical architectural concepts illustrated in the longer, softer lines with spill-offs featured at the flat site of Wisely Golf Club and the rolling terrain at Granite Bay.

"But I've had the opportunity to design completely different styles," he said. "Sometimes the landscape itself projects its own style. I think the phrase 'listen to the land' has been overused, but you need to understand the climate, your client, the user, and the budget they will have to maintain the course."

Phillips, whose work spans from Royal Westmoreland in Barbados to Penha Longa Golf Course in Lisbon, Portugal and Sugarloaf Golf Club in Maine, said he will continue to do domestic work and draw on contacts he has built in the Caribbean and Europe.

In the meantime, he will finish the RTJII jobs under construction. A course opened in Indiana this summer, another in Berlin is getting wrapped up, and four others are in the works. Other projects he has been involved in will be transferred to other RTJII designers.

"We will work them in, in a way that there will not be any down time," he said.

"Kyle has been a valuable member of our team," said RTJII President Robert Trent Jones Jr. "It is with sadness that we see him depart, but we thank him for his efforts on our behalf, and we wish him well in his future endeavors."

Phillips will work out of 5516 Riviera, Granite Bay, Calif. 95746; tel. 916-797-2141.

BRIEFS



KSL FAIRWAYS PROMOTES FOURSOME

MANASSAS, Va. — KSL Fairways, the community golf division of KSL Recreation, has announced the promotion of Mark Burnett to vice president of operations. In his new role, Burnett is responsible for field operations at KSL Fairways' 22 courses. New additions to KSL Fairways' management team include Mark J. O'Neil, who leaves TPC at Avenel to become the northern regional director of operations; Mike Hawkins, formerly director of food and beverage operations for the PGA Tour, now serving as KSLF director of food and beverage; and Willy Choma, who joins KSLF as national director of retail operations, the same position he held for Las Vegas Discount Golf & Tennis.

NGP DECLARES DIVIDENDS

SANTA MONICA, Calif. — National Golf Properties (NGP) Inc. declared a dividend of 42 cents per share for its fiscal quarter ended June 30 for each share of common stock owned by stockholders of record as of July 31. The dividend payment date is Aug. 15. NGP is a self-administered real estate investment trust specializing in the acquisition and ownership of golf course properties.

MOVIN' ON UP

Handling change key to Schlick's Marriott success

By PETER BLAIS

Variety, they say, is the spice of life. In Tom Schlick's case, it is what makes Marriott Golf's director of grounds operations look forward to coming to work each morning.

"I realized pretty early that I wasn't cut out to be a maintenance superintendent," said the University of Florida graduate, who oversees Marriott's 19 golf facilities and has grown in two of them. "I like new construction. They can take three to five years to complete and things are changing all the time."



Tom Schlick

"Change is what appeals to me about this job. I'm involved with everything here — construction, architects, manufacturers. It's different every day."

Schlick hadn't planned on a golf industry career. After earning his bachelor's degree in ornamental horticulture, he started his own commercial landscape contracting business in New York. While bidding on Marriott's Wind Watch Golf Club in Hauppauge, Long Island, he was offered the assistant superintendent's post.

"I hadn't considered a golf career," said Schlick, who worked part-time on the University of Florida's Gainesville course grounds crew while in college. "I knew nothing about golf course maintenance. But it was the late 1980s and the recession was hitting strong in New York. So I decided to give it a try."

Schlick helped grow in seven of the Joe

Continued on page 42



The signature No. 12 island hole at the Country Club at Heathrow (Fla.), a RDC facility.

RDC makes splash along East Coast

By PETER BLAIS

PARSIPPANY, N.J. — RDC Golf Management Co.'s recent purchase of Heritage Links Country Club (CC) in Gainesville, Fla., puts the relatively young management firm into double figures in courses. The semi-private club is RDC's third acquisition in the last year and gives the Parsippany-based company 10 courses at eight locations along the East Coast.

"We're looking to add an average of four courses a year through lease, purchase or management arrangements, although our preference is acquisitions," said company President Chris Schiavone, who co-founded the firm in 1993. "We're looking at properties from Florida to New England. We don't want to be the biggest, just the best in our regions."

RDC is planning \$500,000 in improvements to the Heritage Links' course and 25,000-square-foot clubhouse. The company has added \$100,000 to the course equipment purchase budget and will soon begin a major upgrade to the irrigation system and cosmetic changes to the course.

"The members and public guests will see significant improvements in all areas of Heritage Links' operations, with particular attention to course condition and the food and beverage operation," said RDC Vice President of Operations Steve Phillips.

These are two areas of particular importance to Schiavone, whose experience operating golf courses took root at 54-hole Fiddler's Elbow CC, a New

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Lightning liability a tricky issue at golf courses

The following article was reprinted with the permission of NewsLinks, a quarterly newsletter published by Golf Property Analysts of Harrisburg, Pa. Ian Meklinsky is an associate with the law firm of Fox, O'Brien & Frankel LLP in Philadelphia.

By IAN MEKLINSKY

A New Jersey court has handed down the nation's first known ruling that lightning is *not* an act of God when it hits a golfer.

On March 28, 1993, Spencer Van Maussner, a member of the Atlantic City Country Club, was playing the back nine when one of his golf partners saw lightning. Since there were no man-made shelters along the way, they proceeded toward the clubhouse. While they walked, Mr. Maussner put up his umbrella and was struck by lightning. Although he survived, he was severely injured and sued the Club and its owners.

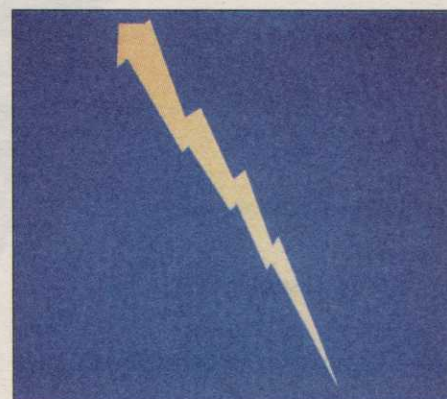
The case was dismissed before going to trial after the county Superior Court Judge found that the "proximate cause" of the injuries was lightning, an act of God, and that the "secondary cause" was the golfer's activities in exposing himself

to the possibility of being struck. Mr. Maussner appealed from this dismissal.

A two-judge appeals panel reversed the lower court and ruled on April 4 in Maussner v. Atlantic City Country Club, Inc. that breakthroughs in engineering and forecasting have given golf courses the capability to protect golfers from lightning better than ever. Therefore, though courses do not have an affirmative duty to protect their patrons from lightning, they are liable if they establish protective systems and the systems do not work.

The appeals court found that the Atlantic City Country Club had, by its actions (the Atlantic City club's practice was to monitor the weather, and it had an evacuation plan that consisted of golf course personnel driving onto the course to warn golfers), assumed a duty to warn golfers and that it is for a jury to determine whether the club exercised the duty reasonably. On remand, the court must permit discovery of industry data to help the jury determine what protection the club offered to its golfers and whether the club reasonably instituted and carried out these precautions.

The ruling sets the stage for proceed-



The painting is the work of artist Paul Reger of Shrewsbury, N.J. Reger has completed several different lightning paintings intended to heighten golfer awareness of the dangers of lightning and safety precautions golfers should follow during storms. The framed 48-by-48-inch paintings sell for \$4,800. Reger can be reached at 908-842-1236.

ings that could lead to a finding that would hit golf course owners in their pocketbooks; the first judicially recognized industry standards for lightning warning and protection.

Significantly, the Maussner opinion contains the suggestion that courses can escape liability if, in effect, they decline to interpose themselves between God and golfers. The court noted that all golf

Continued on page 42

Palmer selects 1st course franchisee

ORLANDO, Fla. — Arnold Palmer Golf Management recently signed on its first franchisee, Braeburn Golf Course operated by Reflection Ridge Corp. in Wichita, Kan.

"As our first franchised course, Braeburn is our newest prototype and will be closely watched by both the industry and the thousands of independent owners around the United States," said Peter Nanula, Chief Executive Officer of Palmer Golf Management.

Said Braeburn owner Reg Boothe: "I decided recently that a franchise opportunity with Palmer Golf was the perfect opportunity for Braeburn. To me, association with the Palmer system is a major launching pad to distinguish our course from the rest of the competition."

The idea to franchise courses under the Palmer brand came to executives of the company who observed that many course owners were either unwilling to sell their facilities or to bring

Continued on page 44

Schlick

Continued from page 42

Lee-designed holes under construction at Wind Watch and eventually took over as head superintendent. He stayed on for a year after the course opened.

"Tom was the first superintendent I'd ever met who understood a course's entire business operation," said Marriott Director of Golf Operations Bill Nault, who

has worked with Schlick since the two were first paired at Wind Watch in 1989. "He was able to balance the growing of turf with the business decisions the pro makes to maximize rounds and make the operation profitable. Bringing those two needs together is a tough thing to do."

Added Schlick: "It's critical in the daily-fee environment for a superintendent to understand the

need to make a profit and to work with the pro and golf director toward that goal. An owner expects to make his 10- to 15-percent return. If the general manager is having a bad month, the superintendent can help by delaying costs, like an ornamental planning, for a few months. I've worked with good golf directors and they'll usually return that money to the maintenance budget as soon as they have

a good month."

Schlick earned a Golf Course Superintendents Association of America regional Environmental Stewardship award at Wind Watch (1992) and both a national (1993) and regional (1994) award at Marriott's Shiloh Falls Golf Club in Preswick Dam, Tenn., where he served as site manager during construction of the Jerry Pate-designed layout.

As the Marriott Golf empire grew, then-Marriott Golf President Roger Maxwell, generally regarded as a golf merchandising genius, realized he needed a director of agronomy to deal with that side of the business. Forty candidates were considered for the job. Maxwell recommended Schlick before he left to start his own company. Maxwell's replacement, Claye Atcheson, offered him the position.

"It helped that I already worked for the company and knew the Marriott method of doing things," Schlick said of his selection. "But I also felt I had proven myself on two tough projects. If I didn't know the answer to a problem, I kept asking people until I found the answer. That is an important ability for a person in my position in an industry that is evolving as rapidly as golf."

Relationships changed as Schlick moved up the corporate ladder. Peers became employees. Critiquing a former co-worker's performance occasionally caused problems.

"But again, I was fortunate to work with good people who, once the dust settled, handled things professionally and moved on. I've made mistakes and it's helped to admit my error in those cases. You are dealing with intelligent, college-educated people. If I make a mistake, they know it."

Schlick enjoys his job, although the 70,000 miles he travels yearly can be taxing, especially with a 2-year-old at home.

"If the right resort project came along, I'd consider going back to the field to grow it in," he said. "It would have to be a huge project, like our Desert Springs facility near Phoenix."

Lightning

Continued from page 41

courses must post signs that identify safety procedures to be used, but it added: "[i]f a particular golf course uses no safety precautions, its signs must inform golfers that they play at their own risk and that no safety procedures are being utilized to protect golfers from lightning strikes."

In reaching the conclusion that the act-of-God defense was not dispositive, the appeals court looked to cases that hold that the imposition of a duty turns on whether it is fair under all circumstances in light of public policy considerations. Continuing, the court indicated that lightning is increasingly falling into the category of hurricanes and tornadoes; disasters that have become more predictable.

Although there are a number of companies that provide protective systems that reduce the risks, courses must now carefully consider the extent, if any, they are willing to "interpose" themselves between their patrons and God.

GOLF COURSE NEWS

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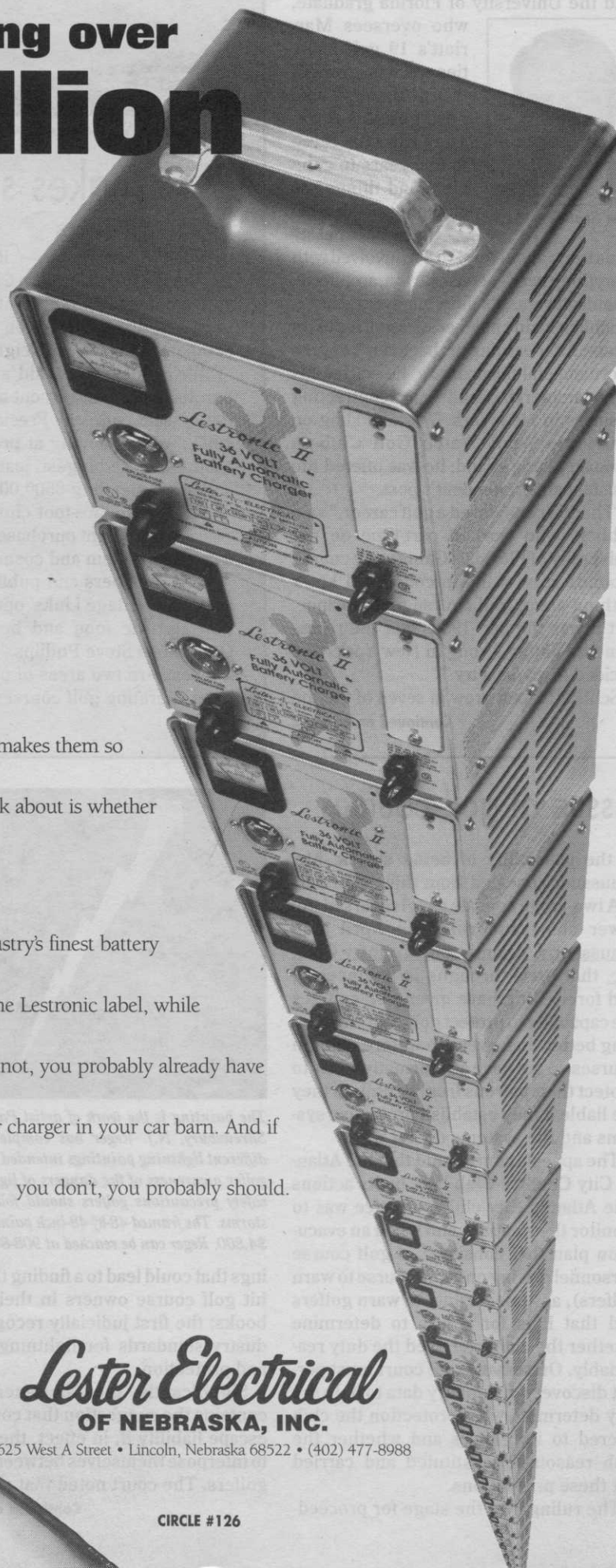
you don't, you probably should.



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CIRCLE #126



Whitbread

Continued from page 1

regularity toward the Whitbread PLC subsidiary. Operator of 13 courses at eight UK venues, Whitbread has become the leading operator of golf courses in the United Kingdom.

Two years ago, Whitbread purchased the right to franchise Marriott hotels in Great Britain and attached the Marriott name to its golf course properties. The Whitbread/Marriott golf portfolio includes:

- St. Pierre Hotel and Country Club (H&CC) in Chepstow, Wales — two 18-hole courses and site of last September's women's Solheim Cup.

- Forest of Arden H&CC in Warwickshire — two 18-hole courses and site of the 1996 English Open.

- Dalmahoy H&CC in Edinburgh, Scotland — two 18-hole courses and a regular European Tour venue.

- Hanbury Manor H&CC in Ware — includes a Harry Vardon-designed course that was redesigned by Jack Nicklaus Jr. and hosted the 1996 European Open.

- Goodwood Park H&CC in Chichester — an 18-hole course.

- Breadsall Priory H&CC in Derby — two 18-hole courses.

- Tudor Park H&CC in Maidstone — includes an 18-hole Donald Steel-designed course.

- Meon Valley H&CC in Southampton — an established 27-hole golfing venue that will begin carrying the Marriott banner later this year.

- Treudenberg in Hamburg Germany — an 18-hole golf facility.

"They [Whitbread] are a franchise partner," explained Claye Atcheson, vice president of operations for Marriott Golf. "They operate the golf courses and we provide a consultant arrangement. All eight facilities are hotels with golf courses."

Added Kevin Hammock, Marriott Golf's director of operations and business development: "The courses are run by the pros at Whitbread. We simply work with them to try to make the Marriott golf experience a consistent, quality one throughout the world. Whitbread Group Leisure Director Rob Baruck runs the golf operations."

Whitbread will continue to develop its country club locations under the Marriott flag. In addition to the above facilities, Whitbread is building two 18-hole layouts in the U.K. that will both open in 1998 — one at the Marriott Manchester and the other at Marriott Hollins Hall in Bradford. The architect for both is European Golf Design.

While not as common as in the United States, the number of multi-course operators, like Whitbread, is growing throughout Europe, Atcheson said. There are no mega-management firms, like giants American Golf Corp. and ClubCorp in the United States. But there are a number of two- and three-course operators, Atcheson said.

"You'll see some more consolidation of course ownership as time goes on," the Marriott executive predicted. "We feel we can deliver a higher level of customer service and maintenance delivery than golfers are accustomed to... We don't want to Americanize the courses, we just want to raise the bar a little."



Whitbread's Dalmahoy Hotel & Country Club in Edinburgh, Scotland: One of eight UK venues in Whitbread's growing stable.

GRANITE FINALIZES \$100M FINANCING

PHOENIX — Granite Golf Group Inc. has finalized the contract for its \$100 million forward-financing package with Lone Star Opportunity Fund, L.P., a Dallas-based investment fund. The fund will be utilized for the acquisition of public golf course facilities throughout North America, with a target of acquiring 20 or more golf courses during the next two years. Granite will also pursue the acquisition of regional golf management companies that operate or own clusters of golf courses in areas of significant growth potential.

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Golf Trust of America closes on \$100m financing package

CHARLESTON, S.C.—Golf Trust of America, Inc. has closed a two-year, \$100 million secured revolving credit facility with a group of four commercial banks led by NationsBank, N.A.

Borrowings under the facility will carry a floating interest rate of LIBOR plus 1.75-2 percent with provisions for the rate to be reduced upon the attainment of a Senior Debt Rating.

"The line of credit will enable us to have a

ready source of capital to pursue further acquisition opportunities in the upscale golf course market," commented W. Bradley Blair, II, President and Chief Executive Officer of Golf Trust of America, Inc.

Golf Trust of America, Inc., is a real-estate investment trust specializing in course ownership. The company has interests in a portfolio of 10 courses located throughout the United States.

RDC

Continued from page 41

Jersey cluster is well developed with Fiddler's Elbow; Cherry Valley CC in Montgomery Township; Jumping Brook Golf Club (GC) in Neptune; Pebble Creek GC in Colt's Neck; and Woodlake CC in Lakewood. Heritage Links is located two hours from the firm's other Florida property, Heathrow Country Club in Lake

Mary. RDC is also developing The Crossings at Grove Park, a Ron Garl design in Durham, N.C., scheduled to open in October.

"We're looking at other facilities in Florida and a couple in North Carolina to group with our properties there," Galvin said. "There are many regional players [management firms] along the East Coast, so there aren't one or two firms we see as our major competition. In Florida it might be Arnold Palmer. In the Carolinas, it might be somebody else.

"In New England, it might be the Friel family. The relationships among companies seem pretty cordial. If we come across a property that doesn't make sense for us, we'll often pass that information along to another firm that might find an opportunity there. They often do the same for us. It's not a cutthroat business."

Schiavone said he sees the trend toward the consolidation of management firms into ever-larger entities continuing, although RDC "is not positioning itself to acquire other management firms or to be acquired by a larger firm.

"We could buy a small firm with several courses in order to become a regional player in a certain market. We're a young company. Matt and I are both in our 30s. We're not looking to cash out quickly, but to keep the company growing."

Palmer

Continued from page 41

in professional management companies to take over operations.

"There are great operators out there who want to continue to run their business first hand, but they realize they could benefit from associating with a branded national chain," Nanula said. "We provide a support system that allows independent course owners to maintain the day-to-day management of their course. In addition, they benefit from both the Palmer name and a unique operating system that has proven it can work at virtually any course."

To become a Palmer Golf franchisee, owners pay an initial \$35,000 fee, an annual royalty, and agree to course and facility improvements if any are recommended by Palmer Golf. To help with financing, Palmer has established a program with FMAC, a leading franchise lending institution providing financing for facility upgrades.

For more information about the Palmer franchising program, contact Randy Clifton at 407-876-6700.

Cool tools for hot spots.

If you've been using a pitchfork and hose to treat those high and dry trouble spots on your tees and greens, our new **Spot Doctors** will make your life considerably easier. Whether you use the **tine unit** for deep penetration or the **roller unit** for shallower treatment, you'll appreciate the ease and efficiency they bring to the job. Both quickly attach to a hose fed by your irrigation system. ■ The tine unit works like a combination pitchfork and syringe.

Just place the tines on the spot and squeeze the pistol grip. There's no need to push or force the tines into the ground. Water pressure helps them slide through the soil like a hot knife through butter—delivering water to a depth of up to six inches. ■ The roller unit can be wheeled back and forth over dry spots like a vacuum cleaner to distribute water to a depth of up to two inches. Both units can be used with a surfactant applicator to further increase soil permeability. Cool! ■ Spot

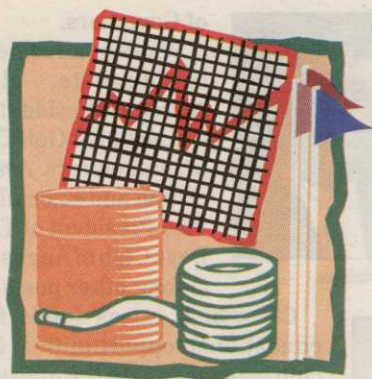
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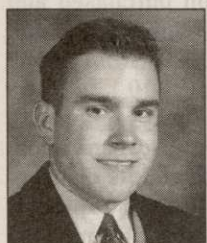
BRIEFS

**CYANAMID'S ROWE HEADS MIDWEST**

PARSIPPANY, N.J. — Herbicide and insecticide manufacturer American Cyanamid Company announced that Kit Rowe is now midwestern territory manager for the company's Turf and Ornamental Products Group and Pest Control Products Group. Rowe's territory includes Indiana, Ohio, Michigan, western Pennsylvania and Kentucky. His office will be located in Columbus, Ohio. Rowe joined Cyanamid in 1995 as territory manager in the mid-Atlantic states. His territory included Virginia, Maryland, Delaware, southern New Jersey, southeastern Pennsylvania and West Virginia.

SCHUMACHER JOINS JACKLIN

POST FALLS, Idaho — Derek Schumacher has joined Jacklin Seed Company as a grower field representative for Jacklin's Oregon operation. Schumacher's responsibilities will be

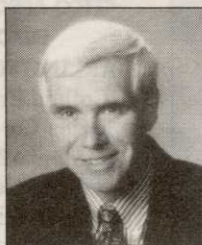


Derek Schumacher

placing and contracting Tall Fescue and Perennial Ryegrass proprietary varieties for Jacklin Seed Company and Medalist America. He will focus on field consulting with growers assuring quality control from the grower to the customer. He received a Bachelor of Science degree in Crop and Soil Science from Oregon State University in March 1997, and spent summers prior to coming to Jacklin Seed working for Doerfler Farms Inc. in Aumsville, Ore.

EXCESIOR'S JONES GOES WEST

ARLINGTON, Texas — American Excelsior Co. has appointed Larry Jones western sales manager for its Earth Science Division. Jones recently joined American Excelsior from Weyerhaeuser Engineered Fiber Division. In his new position, Jones will be responsible for the sales and marketing of the company's erosion control products in 15 western states. He will supervise six sales/territory managers and develop distribution channels through American Excelsior's branch offices, selling direct to contractors and through selected distributors.



Larry Jones

Toro commits to training

New facility is next step toward creating "total solution" ideal

By MICHAEL LEVANS

BLOOMINGTON, Minn. — Marking its biggest commitment to training and equipment support to date, the Toro Company will open a 5,800-square-foot training facility designed for customers, distributors and Toro employees this fall.

The facility, located at its Bloomington headquarters, houses two classrooms, four lift-equipped service bays, as well as video conference and audio-visual capabilities.

The company said the facility is its next step in building a "total-solution approach" for its customer base.

"This gives us the physical facility we've needed to augment the training work we've been doing in the field," said Don St. Dennis, Toro's director of public relations.

"We're [Toro] in a unique position in terms of services we can offer. We have irrigation and equipment, but we also get

involved with the architects and can advise on the grow-in and fertigation. So we see the information training as an extension of that work in order to help our customers manage their facility."

Training curricula, to be held in week-long units, will be taught by Toro personnel and will consist of courses designed to meet certification requirements for professional organizations and help attendees earn continuing education credits.

"Curriculum will be devoted to our commercial turf products and will focus on basic hydraulics, electrical systems, troubleshooting and preventive maintenance among others," said Rich Smith, Toro's service training manager. "These courses will be devoted to the golf and commercial landscape industry," Smith said.

Classroom lab areas and service bays

Continued on page 48

**NEW PRODUCT OF THE MONTH**

INDIANAPOLIS — The GreensGroomer is designed to solve a common problem that occurs on a golf course — getting greens up to speed after topdressing. GreensGroomer Worldwide said that its new brush eliminates the problem by carefully brushing the sand down to the ground level. The design — which is patent pending — moves the topdressing three times as it's moved forward. When the job is finished, topdressing materials becoming almost invisible. For more information contact GreensGroomer WorldWide Inc. at 317-298-8852 or 317-839-4868.

Lofts acquires Sunbelt, gains 100% control

WINSTON-SALEM, N.C. — Lofts Seeds Inc. has completed its acquisition of Sunbelt Seeds, Inc., a wholesale grass seed and fertilizer distributor located in Norcross, Ga.

"Lofts already had 50-percent ownership in Sunbelt," said Neil Myers, Lofts' spokesperson. "We felt it was a good move to establish 100-percent ownership since Sunbelt is one of the largest distributors in the Southeast."

"This was a natural outgrowth of their original purchase of the 50-percent," said Joe O'Donnell, general manager of Sunbelt. "They have a strong background in the seed industry. And even though they were a 50-percent partner, they were the 50-percent seed-oriented partner. This was a logical progression."



Under the new arrangement, Sunbelt Seeds will function as a subsidiary of Lofts Seed and will sell seed to golf courses, sod farms, retail stores, landscapers, lawn-care operators, sports facilities and government municipalities.

O'Donnell will be staying on board as general manager.

"We are very excited with this acquisition because it will enhance our capabilities and services for our existing customers and opens new market opportunities," said Richard Budd, Lofts' chief executive officer.

Lofts operates branches in Massachusetts, Pennsylvania, New Jersey, Maryland, Ohio, North Carolina and Oregon and markets turfgrass seed internationally.

**RAIN DIDN'T DAMPEN SPIRITS**

ROLESVILLE, N.C. — Despite persistent rain showers, 215 people turned out for Turf-Seed Inc.'s Field Day 15 on June 24 at the Pure Seed Testing Inc. research farm. "We feel great coming out of this field day," said Melodee Fraser, director of Pure Seed's eastern research. "There was a lot of excitement about our new tall fescues and Bermudagrass." Guest speakers included Dr. John Rogers of Michigan State University (pictured above) who discussed using crumb rubber from used tires in high traffic turfgrass areas, and Dr. Clark Throssell, executive director of the Midwest Regional Turf Foundation, who covered some of his recent finds on how bentgrass stands up to pesticide applications.

EoZyme eats away at contaminants

By MICHAEL LEVANS

BELLEVUE, Wash. — EoZyme Environmental Inc., a company that focused on waste-water treatment for auto repair and truck facilities, has decided to sic its secret weapon on the pesticides, oil and grease that superintendents encounter at equipment washing stations.

Instead of using a traditional filter system, EoZyme's WaterStax system eliminates contaminants through bioremediation technology — the use of naturally occurring microorganisms to degrade pollutants.

"With a filter, the problem isn't solved," said Paul Schuman, EoZyme's spokesperson. "You collect the contaminants in a filter but you don't eliminate the contaminants. Our microbials use the grease, oil and pesticides in the system as their source of food. They eat and break it down into carbon dioxide."

With environmental issues revolving around nearly every activity in the maintenance shed, EoZyme said it's hoping that its system will strike a resonant chord with eco-savvy supers.

Jim Smith, assistant superintendent at Port Ludlow Golf Course in Port Ludlow, Wash., was working with a home-made system that created an uncontrolled contaminated area. Smith, realizing that he needed to make his wash rack more environmentally sound, decided to install a WaterStax.

"It's a lot more maintenance than we

Continued on page 48

MAT to continue manufacturing fiber mulch

FLOODWOOD, Minn. — MAT Inc. recently announced that it will continue to manufacture premium wood fiber mulch for hydroseeding following Weyerhaeuser's closure of its Engineered Fiber Business after more than 30 years of operation.

MAT has manufactured 100 percent of Weyerhaeuser's private-labeled Silva-Fiber and Silva-Blend branded product lines for the midwestern and eastern markets since 1988.

Joe Karpik, President of MAT, has appointed Ron Perez, a recently retired Weyerhaeuser employee,

to head the sales and marketing activity in these markets.

The first truckloads of MAT Fiber produced under the new label were shipped to Barenbrug Seed Co. in Pittsburgh, Pa., and Flick Brothers Seed Co. in Kingsville, Mo.

E-Z-Go president joins CF board

ALEXANDRIA, Va. — The Club Foundation (CF), the charitable arm of the Club Managers Association of America (CMAA) has added L.T. Walden Jr., President of Augusta, Ga.-based E-Z-Go Textron, to its Board



L.T. Walden

of Governors.

Walden, a resident of Augusta, also serves as President of the National Golf Car Manufacturers Association and Executive Vice President of The Boys Club of Augusta, among other posts.

CF, which raises funds for educational opportunities for club managers, is in the midst of concluding its Campaign for Excellence, a capital campaign to create an educational endowment. The Textron Group, consisting of Jacobsen, Textron Financial Corp., Textron Specialty materials and E-Z-Go, was one of the first corporations to contribute to the campaign, pledging \$100,000 in 1994.

Milorganite to boost research

MILWAUKEE, Wis. — Golf course superintendents can help support turfgrass research when they use organic Milorganite fertilizer this fall, according to Larry Lennert, manager of research and product development at Milorganite.

For each ton purchased and delivered between August 1 and November 30, 1997, Milorganite will donate \$10 to the superintendent's favorite turfgrass research organization.

"Milorganite and its distributors have long supported turfgrass research at the national level through the O.J. Noer Research Foundation," Lennert said. "The Turfgrass Research Donation Program enables Milorganite customers to support turfgrass research at the local level as well."

This is the third year that Milorganite has sponsored its Turfgrass Research Donation Program. In the first two years of the program, Milorganite donated nearly \$40,000 to turfgrass research organizations across the U.S. and Canada.

CETCO APPOINTS LAPINSKI TO EUROPEAN POST

ARLINGTON HEIGHTS, Ill. — Colloid Environmental Technologies Co. announced the appointment of Michael C. Lapinski to the position of managing director for CETCO Europe.

Lapinski, who will continue his current responsibilities as vice president of finance for CETCO, will replace Ryan McKendrick, who has been managing director of CETCO Europe for the past year. McKendrick will now refocus his attention on Asia.

GOLF COURSE NEWS

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CIRCLE #131

National Seal gets ISO, GAI OK

AURORA, Ill. — The Quality Control Laboratory at National Seal Co.'s Galesburg, Ill., facility successfully passed an audit by TUV Rheinland of North America and was awarded ISO 9003 certification by Deutscher Akkreditierungs Rat (DAR-Germany).

"Having a quality system conforming to ISO 9003 gives us a strong edge in the world marketplace where certification is almost a prerequisite for doing business, especially in the European Community," said Lance Reed, quality assurance manager for National Seal, a manufacturer and installer of polyethylene lining and piping systems for waste and liquid containment.

The ISO 9000 series of standards was created by the International Organization for Standardization (ISO) to simplify the international exchange of goods and services by developing a common set of quality requirements. ISO 9003 is the quality systems standard focusing on final inspection and testing of manufactured product.

NSC-Galesburg documented and demonstrated compliance to all sixteen elements in ISO 9003 including internal auditing, timely corrective action, the handling of customer complaints, and a comprehensive laboratory calibration program.

National Seal's equipment applications

include ponds, lagoons and reservoirs.

The company's Quality Control lab also passed an audit by the Geosynthetic Accreditation Institute - Laboratory Accreditation Program (GAI-LAP).

GAI-LAP provides credibility to laboratories showing compliance with equipment and documentation for specific standard test methods. GAI-LAP also verifies that an effective quality system exists at all accredited laboratories.

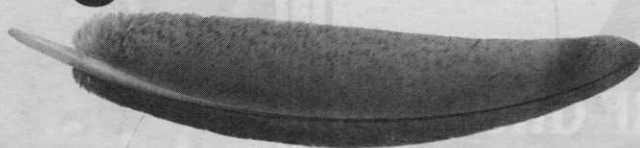
Golf Ventures lands in Jupiter

LAKELAND, Fla. — Golf Ventures Inc. has opened its third regional service center. The new office, located in Jupiter, Fla., serves Indian River, Okeechobee, St. Lucie, Martin, Palm Beach, Broward and Dade Counties.

The new location services the golf course maintenance industry specifically and distributes Lykes Fertilizer, Helena Chemical, Lofts Seed, Ringer, PSA, Emerald Isle, Bio Turf Gro, Green Releaf and a number of other specialty products.

Staffing the Jupiter office will be representatives David Cheesman, Walt McMahon and Mike Bonetti. The office manager is Sue Sjosten. Sjosten has a number of years experience in the golf industry, including serving for four years as the administrative assistant in the Florida Regional office of the USGA Green Section.

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CIRCLE #138

Toro vs. G&H

Continued from page 1

According to Larry Buckley, Toro's attorney, "What we believe was stolen is the concept of the assembly; in turn, opening a great opportunity for a universal assembly based on the inside knowledge that Grizzle gained over his years at Toro."

At the end of November, 1996, Toro sought an injunction through the U.S. District Court in Los Angeles to remove certain Bear sprinkler products from the market until the time of trial. The Court denied Toro's injunction.

During the first week in June, 1997, Judge Takasugi released the Court's conclusion, stating that Toro did not have sufficient admissible evidence to support its claims that Grizzle & Hunter stole trade secrets.

"We're sitting in a good position right now," said Pam Wagner, an attorney from Luce, Forward, Hamilton & Scripps LLP, the law firm handling the case Grizzle & Hunter. "The main focus of this lawsuit wasn't so much about money as it was about Toro trying to put our client out of business. We already knew the judge found some problems with their evidence. But from our standpoint, the hearing in November 1996 was the most important case."

Like Wagner, Toro is also confident that its case has enough evidence to win at trial. "Toro has carefully considered the situation and made the decision that it must take protective action when Toro's proprietary technology and information is at risk," said Rick Parod, vice president and general manager of Toro's irrigation business.

"Unless there's a delay or settlement, we'll be ready to go to trial on September 23," added Buckley.

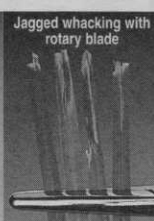
GOLF COURSE NEWS



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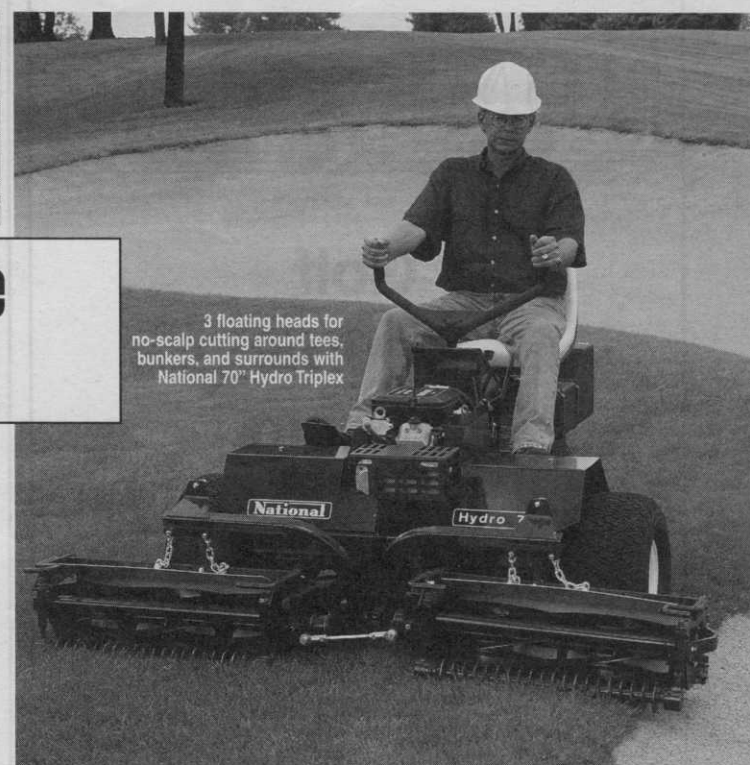
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CIRCLE #137

Calling all old Vermeers

PELLA, Iowa — Vermeer Manufacturing has kicked off its "Hunt for the Longest Running Vermeer," a contest to locate its oldest operable machine.

Contest rules and registration are available at every North American Vermeer dealership where entries for the contest are being accepted until November 1, 1997. The winning machine and its owner will be present at Vermeer in Pella during the company's 50th anniversary in 1998.

KUBOTA PROTECTS PROPRIETARY RIGHTS

TOKYO — In response to an action filed by Kubota Corp., Kubota Tractor Corp. and Kubota Manufacturing of America Corp., the U.S. International Trade Commission (ITC) has issued a general exclusion order prohibiting the further importation of "gray market" Kubota tractors under 50 PTO horsepower that infringe Kubota's federally registered trademark rights.

EoZyme

Continued from page 45

originally thought," said Smith, but it's getting the job done and it's head and shoulders better than what we were using."

Here's how it works: A concrete pad, or washing area is poured outdoors to form a equipment washing station. After the equipment is hosed off, the water flows into a catch basin and is then pumped up to the first of three tanks. Before the water enters the first tank, however, grass is filtered out and dumped into a 45 gallon barrel.



"Uses typically get about 30 gallons of grass per day," said Schuman.

"We're having an extremely wet summer," said Smith, "so we're having a lot of grass. We have to keep a couple guys on it when we're doing a clean up." Smith said his crew is using the wash station three times a day due to the current wet conditions.

In the first tank resides a settling comb, a device that sifts sand, grit and heavy matter out of the water. The sediment-free water then moves into the second and third tank where the microbes, which are injected once a day, feast on the contaminants.

"The water that goes through the system is then clean enough to be pumped back into irrigation ponds, sprinkler systems or sewer systems," said Schuman.

Smith's is being pumped back into the sewer system.

"Golf courses are starting to look at doing this more often," said Smith. "And it's only a matter of time when the EPA starts cracking down. But it's a great thing to do just to show your environmental stewardship since people still don't know what we do and how we do it."

The system is up and running in more than 40 courses around the country. It's available for about \$15,000.

Toro training

Continued from page 45

will allow hands-on servicing — the key, said Smith, to helping the curriculum stick.

"The purpose of this service facility is to replicate the actual work environment that service technicians encounter in the turf industry," said Smith. "We'll demonstrate practical application in a state-of-the-art service environment," he said.

Course fees will vary depending on subject and number of sessions.



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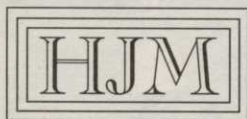
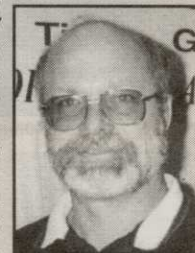
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— Gary Femrite, Golf Superintendent, Pebble Creek G.C., Becker, MN

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CIRCLE #143



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CIRCLE #144

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The second phase of the construction will be completed later this spring and we have specified the use of PennMulch for the remaining greens. Quite simply, PennMulch provides the insurance I've been looking for."

— Tony King, Superintendent
River Ridge Golf Club
Raleigh, NC

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CIRCLE #147

Huskie HD offers new features



The Huskie HD from Haul Master Inc., offers new heavy-duty features while maintaining the versatility of the original Huskie utility vehicle. Like the original Huskie, the Huskie HD features a 1,000-lb. dump box capacity, which is the largest in its class, yet is small enough to fit in a standard pickup bed for transport to job sites. A short turning radius (11.5 feet) and four-cycle, air cooled 16 hp Briggs & Stratton engine hauls heavy-duty loads over almost any terrain. Transaxle drive, differential lock and 9 1/2" ground clearance improve operation in muddy fields or rocky terrain. Meanwhile, the automatic torque converter with Salisbury clutch, driven pulley, and heavy duty belt continuously sustain power and speed.

The Huskie HD also offers rack and pinion steering with adjustable tie rods and rugged A-frames. The front suspension features fully independent coil springs over heavy duty hydraulic shock absorbers, as well as five position spring force adjustment. For more information, contact Haul Master at 800-848-HAUL (4285),



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You've probably heard about the Verti-Seed® overseeders because they are the only ones that cut the soil, open the groove, sow the seed and close the groove all in one simple operation. You can also use it to implant a selection of granular materials.

Now with two models to choose from — the original and the wider 48 inch 1204 — you can choose the working width that exactly suits your needs. With the closest spacing in the market — 1 1/2 inches — you have maximum flexibility. It's really a whole new concept in overseeding that has proven itself in many ways following recent harsh winters. Sow and play right away. Ask your dealer for a demonstration today.



CIRCLE #135

Bayleton sports new packaging

Bayleton Fungicide is now available in a new formulation that offers the same broad-spectrum disease control in new, convenient packaging. Bayleton 50 Turf and Ornamental fungicide offers the convenience of mini-drum packaging with eighty-eight (88), 5.5 ounce PVA pouches per drum.

This new formulation provides the same consistent performance as Bayleton 25 at

reduced application rates. Bayleton 50 controls, as well as prevents, many turf fungal diseases including dollar spot, brown patch, summer patch and other diseases on turf, flowers, foliage plants, shrubs and shade trees. Its systematic action offers lasting residual control of up to 30 days or more.

For more information contact Bayer Corp. at 816-242-2000.

Par Aide offers new club stand

Increase the functionality of your practice range while adding an extra measure of convenience for guests and members. Par Aide's new golf bag stand keeps clubs accessible to players and prevents spilled clubs and unsightly golf bag "pile ups" on the practice range.

Standing 31" high, the heavy gauge tubular steel bag stand secures to the ground with two 9" spikes. For more information contact Par Aide at 612-779-9851.

Earth & Turf adds Scoop & Spread

Earth & Turf announces the addition of the Scoop & Spread to its line of economical top dressers. Employing an exclusive design, the Scoop & Spread hopper tilts backward hydraulically and becomes a loader to scoop up topdressing material. The 15 cu. ft. hopper is constructed of welded 10 and 12 gauge steel giving integral strength while keeping the overall unit weight to a minimum. For loading, the hopper is rolled back by means of two standard 2.12 hydraulic cylinders. For more information, contact Earth & Turf at 888-693-2638.

Smithco re-engineers Sweep Star

Smithco's Sweep Star 60 dedicated turf sweeper has been re-engineered and improved to further increase its power, performance, comfort and safety of its operators. The new engine and the new features are standard and available on the new model.

The new-design Sweep Star 60 is now powered by a 25 HP Kohler Command OHV twin-cylinder gasoline engine, increasing its overall performance and its transport ground speed on all types of terrain. The Smithco-exclusive full-floating sweeping reel can now be engaged and operated at adjustable heights to better pick up wind-rows and piles. All four wheels have larger, high capacity, drum brakes and the rear wheels are now equipped with larger, softer, 24-1300x12 tires for the maximum protection of turf.

The sweeper's filtration system utilizes washable, replaceable, polyester screens on both the front and rear hopper outlets, to remove 90% of the dust and dirt from the discharge. For more information, contact Smithco at 610-688-6009.

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CIRCLE #140

Casper keynotes

Continued from page 1

Hotel and Resort. Casper's keynote at 9 a.m. will kick off two days of educational sessions on course management and marketing, development and maintenance.

Casper's 51 PGA Tour victories stand him 6th on the all-time win list and earned him induction into the World Golf Hall of Fame in 1978 and PGA Hall of Fame in 1982. He won two U.S. Open titles (1959 and 1966), a Masters Championship (1970), a U.S. Senior Open title (1983)

and was twice named PGA Player of the Year (1966 and 1970). Eight times he played on the U.S. Ryder Cup teams and in 1979 was the non-playing captain.

Since reducing his playing time, the 66-year-old Casper has devoted increasing time to the course design firm Casper Nash & Associates, which he formed in 1986. From their Phoenix headquarters, he and partner Greg Nash have teamed on more than 60 mostly public-access golf courses, including nearly 27 for Del Webb's master-planned communities. The average golfer, he said, is his main target and

he designs his courses "to be very flexible" and to "offer an enjoyable challenge to average players while still testing the limits of a scratch player's abilities."

Meanwhile, Billy Casper Golf Management Inc., formed in 1988, operates 16 facilities from the mid-Atlantic to Hawaii. A dozen of those properties are daily-fee exclusively or semi-private. Headquartered in Vienna, Va., the firm provides consultation services on the planning, development and

construction of new courses, and offers complete turnkey management services to new and existing courses.

"We're thrilled to have Billy Casper headline our conference," said *Golf*

Course News publisher Charles von Brecht. "He knows every side of the golf industry and has been admired for his character and integrity his entire career."

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CIRCLE #146

H₂O REPORT CONTINUED

Sulfur dioxide

Continued from page 30

major cations: sodium, potassium, calcium and magnesium.

Likewise, sulfur dioxide-treated water that contacts soil reduces the soil pH while reducing sulfur and sodium levels.

Frye installed a sulfur dioxide generator at a cost of \$27,000. The results? The Ocean Course's turf and trees were able to utilize 80 to 90 percent of the irrigation water applied to the course, up from 30 to 40 percent previously. The improved efficiency allowed Frye to cut water use between 20 and 30 percent, a number that found favor with state environmentalists.

"[Course architect] Pete Dye couldn't believe the difference in the quality and health of the turf and trees when he came back recently, particularly the trees," Frye reported. "You can always replace turf, but not a 40-year-old live oak."

"I heard Raymon Finch [one of the developers of nearby Wild Dunes] say once that water had more influence on the success of a golf course than any other single thing. I think he's absolutely right."

The Ocean Course is preparing to host the World Cup on Nov. 17-23, the facility's first pro event since the Ryder Cup. Sixty-four of the world's top players from 32 countries are expected to participate. Frye closed the course for 30 days this spring while new fittings were placed on an updated irrigation system.

Ready to leap

Continued from page 30

forced to use only that water necessary to meet standards.

Which leads to the next question: Is state-of-the-art irrigation necessary to deliver water most efficiently? The answer is "Yes," in the long term. Present-day automatic systems have application efficiencies in the 80-percent range.

Can we cut another ten percent with better control and delivery? The answer is "Yes," with improved sensor/controller feedback.

A great savior for golf is recycled water. Irrigating with treated effluent is a very promising short-term solution. However, the efficiency of irrigation systems, not recycled water, will determine the growth of the sport in the long run. Consequently, state-of-the-art irrigation technology is the long-term key to the growth of golf.

How quickly can current superintendents, irrigation specialists and other golf course personnel be trained to understand and manage advanced, central-computer irrigation systems? With the database of these systems expanding beyond irrigation, the superintendent can no

The efficiency of irrigation systems, not recycled water, will determine the growth of the sport in the long run.

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CIRCLE #136

longer delegate operation of his central to one person. Chances are, irrigation specialists, mechanics, pesticide applicators, and equipment operators will need some access to the information gathered and organized by the central computer. At the same time, the information in the database must be secure from mistakes and unauthorized use.

This is a sizable training challenge. Will training from the manufacturers and distributors of these central systems be enough? If not, can irrigation consultants handle the job?

If you have read about the new total management packages from irrigation manufacturers, you know that implementation requires a very tight survey of your course so its layout can be digitized for the database. Any changes you make in the course have to be added to the database. Who will do this for thousands of courses in the coming years?

You can see how important it is to improve your irrigation system on a regular basis. By staying knowledgeable through training and making reasonable upgrades, you not only protect the future of your golf course, you protect the future of the sport.

GOLF COURSE NEWS

Zikorus

Continued from page 11

then with course architect Orrin Smith. When Smith retired in 1955, Mr. Zikorus took over the practice. He was elected a member of the American Society of Golf Course Architects in 1969.

Most of his work was in the Northeast and included new designs and renovations of all descriptions. Among the courses he designed are Tunxis Plantation Country Club CC in Farmington, Conn.; Twin Hills CC in Longmeadow, Mass.; Heritage Village Golf Course GC in Southbury, Conn.; and Timberlin GC in Town of Berlin, Conn.

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CIRCLE #141

Golf Course Classifieds

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REQUESTS FOR PROPOSALS

Requests for Proposals for operation of Paradise Valley Golf Course and Rancho Solano Golf Course, two premier 18-hole municipal golf courses located in the City of Fairfield, Fairfield, California. Fairfield is a growing city of 90,000 located along Interstate 80, midway between San Francisco and Sacramento (approximately 40 miles from each city). RFP deadline date, September 15, 1997. For RFP information contact Patricia, (707) 428-7466.

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HELP WANTED

National golf construction firm is seeking qualified project managers, shapers, irrigation personnel. Submit resume to **environmental golf**, 24121 Ventura Blvd., Calabasas, CA 91302.

TURFGRASS GROUNDS MAINTENANCE/ MANAGEMENT AGENT

Penn State Cooperative Extension is seeking an individual to plan, implement, conduct and evaluate Extension educational programs in the broad areas of turfgrass culture and management, working with commercial and residential lawn care firms, industrial, commercial, and residential grounds managers, municipal park and open space management, athletic field managers, golf course operators and sod producers. Identify problems, opportunities and educational needs of clientele in the multi-county area of Schuylkill, Northampton, Lehigh, Berks, Bucks, Chester, Delaware, Montgomery and Philadelphia. This position will be based in Delaware County. Preference will be given to candidates who have one or more degrees in Agronomy, Turfgrass Science, Soil Science, Plant Science or Horticulture. A Master's degree is preferred, but candidates with BS and evidence of successful programming, etc. will be considered. Candidates who have related work experience in turf production, turf or grounds maintenance, garden center operations or other related experience are encouraged to apply. Candidates should possess effective program development, teaching and evaluation skills, and demonstrate positive human relations and effective communication skills. Salary will be commensurate with education and experience. Delaware County Cooperative Extension is a unit of Penn State and offers a competitive salary and a liberal benefits package. The closing date for accepting resumes and applications is August 20, 1997 or until a suitable candidate is found. Applications are available by writing or calling Human Resource Services (814) 863-3452, Box DETG6, 307 Agricultural Administration Building, The Pennsylvania State University, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and Minorities Encouraged to Apply.

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CALENDAR

August

13 — *Golf and Fine Turf Tour at Rutgers University/Cook College in New Brunswick, N.J.* Contact Richard Caton at 980-821-7134.

14 — *National Turfgrass Evaluation Program Field Day in Beltsville, Md.* Contact Jennatte Wills at 301-504-5125.

19 — *Cornell Field Day in Ithaca, N.Y.* Contact Frank Rossi at 607-255-1629.

26 — *Cornell Field Day in Ithaca, N.Y.* Contact Dr. Frank Rossi at 607-255-1629.

27 — *Georgia Turfgrass Field Day in Griffin.* Contact Doug Moody at 770-975-4123.

28 — *Michigan Turfgrass Field Day in East Lansing.* Contact Kay Patrick at 517-321-1660.

September

4-5 — *Southwest Horticultural Trade Show in Phoenix.* Contact 602-966-1610.

8-10 — *PGA International Golf Show in Las Vegas.* Contact 561-624-7600.

17-18 — *University of California Turfgrass and Landscape Research Conference and Field Days in Riverside.* Contact Victor Gibeault at 909-787-3575.

October

6-8 — *West Texas Turfgrass Conference in Lubbock.*

6-8 — *Peaks & Prairies GCSA Fall Meeting & Trade Show in Billings, Mont.* Contact Lori Russell at 406-434-5168.

26-28 — *Public Golf Forum in Oak Brook, Ill.* Contact Golf Course News Conference Group at 207-846-0600.

November

2-4 — *18th Annual Irrigation Association International Exposition and Technical Conference in Nashville, Tenn.*

3 — *Georgia Golf Course Superintendents Association Annual Meeting in Savannah.* Contact Karen White at 706-769-4076.

4-6 — *Penn State Golf Turf Conference in State College, Pa.* Contact Peter Landschoot at 814-863-3475.

4-7 — *Turf and Grounds Exposition in Syracuse, N.Y.* Contact 800-873-8873.

15-18 — *Associated Landscape Contractors of America Landscape and Grounds Maintenance Conference and Green Industry Expo in Charlotte, N.C.* Contact Elise Lindsey at 703-736-9666.

December

9-11 — *New Jersey Turfgrass & Landscape Expo in Atlantic City, N.J.* Contact Richard Caton at 908-821-7134.

9-11 — *Georgia Turfgrass Conference and Show in College Park.* Contact Doug Moody at 770-975-4123.

11 — *Massachusetts Recreation and Park Association State Conference in Sturbridge.* Contact Carol Kilcoyne at 508-650-1126.

15-17 — *Texas Turfgrass Conference and Trade Show in San Antonio.*

1998

January

8 — *Northeast Turf and Grounds Exposition in Albany, N.Y.* Contact NYSTA at 800-873-8873.

19-23 — *Club Managers Association of America World Conference in Las Vegas.* Contact Tamara Tyrell at 703-739-9500.

20-22 — *Midwest Turf Expo in Indianapolis.* Contact Bev Bratton at 765-494-8039.

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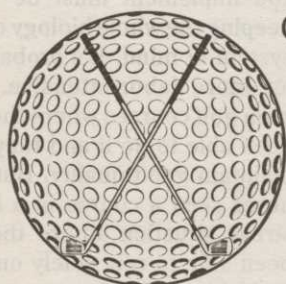
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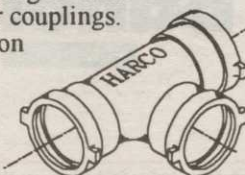
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Nelson to lead biologicals panel

By MARK LESLIE

OAK BROOK HILLS, Ill. — With debate on pesticide use inflaming the public and driving public policy, the golf industry has to face the issue, whether it wants to or not. And the result, according to Dr. Eric Nelson, is a future of turfgrass management dominated by “a highly techni-

cal, biologically based approach.”

Nelson, of Cornell University, will lead a half-day session on Biological Controls: Current Status and Future Prospects, which will highlight the 1997 Public Golf Forum, Oct. 27-28 at Oak Brook Hills Hotel and Resort here. Sponsored by *Golf Course News*, the Public Golf Forum is a

national conference and show for superintendents, general managers, owners and developers of public-access courses.

The session on biological controls, from 1 to 5 p.m. Oct. 28, will climax the Maintenance track of the conference. Development and Marketing/Management tracks are also scheduled.

Nelson, who has done extensive research on biologicals, composting and other aspects of

biological controls, will lead a three-speaker panel. Dr. Janet Anderson, director of the Environmental Protection Agency's

Biopesticides and Pollution Prevention Division, will also speak, as will North Shore Country Club superintendent Dan Dinelli, who has been a part of several studies and field research projects pertaining to various biological con-

trols, including the BioJect system.

Control of turfgrass pests and diseases “is clearly headed in the direction of biologicals

— for a lot of reasons,” Nelson said. “There has been a lot of criticism about pesticide use on golf courses. A lot of superintendents want to do something with a biological control only to say to their membership, ‘Look, we’re trying to do things for the environment.’ In other cases, they’re truly interested in looking at biologicals to augment chemical applications.

“You constantly have to be thinking about what is happening biologically in that soil. Every management practice that you implement must be done keeping the whole biology of the system in mind. It’s probably a lot more labor-intensive. I’ve seen golf courses where they’ve been able to do it and they can maintain good quality. But I’ve never seen a course in a high-stress situation where they’ve been able to rely solely on biological practices.”

“There are still many more questions than answers,” said Dinelli from North Shore CC in Highland Park, Ill., adding that Nelson and Prof. Michael Boehm of Ohio State University are among “only a few researchers who have put in the effort to learn what can be applicable in the real world with biologicals and enhancing turf’s ability to thrive and stand on its own.”

The fact remains, Dinelli said, that “we have fewer and fewer products coming on the market, and anything we can do to enhance and minimize the use of those products, the longer they will continue to be effective. As a generalization, it’s fairly well accepted that many of the pesticides we use are effective only so long.

“Dollar spot has become immune to many of our fungicides. Many insecticides that were mainstays are no longer as effective as they were. Pathogens tend to build up resistance to many of these products. The resistant buildup will outgrow the products that might replace them. So now you have to use higher concentrations at tighter intervals and you become addicted to these materials on a continual downward spiral of products’ effectiveness.”

Biological controls can counter this spiral, Dinelli feels, if they can make it into the marketplace.

That point will be addressed by Anderson, who will speak on what biological-control products are in the pipeline; what the registration process involves and what EPA requires; the issue of efficacy because, typically, with conventional pesticides, federal EPA does not require efficacy; and federal versus state registration.

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ALL IN THE FAMILY
Robert Trent Jones Sr. (left) has teamed with elder son Bobby to form a new architectural entity, RTJ Golf Ventures. For story, see page 37.

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Image enhanced but golfers insist on 'green' look

BY PETER BLAIS
ORLANDO, Fla. — Most golfers view superintendents as trained professionals and the person most responsible for and the person most responsible for course conditions — news course managers should find encouraging considering national efforts to elevate their image.

Disturbingly, however, few golfers recognize the Golf Course Superintendents Association of America (GCSAA) as the superintendents' national organization. Also troubling was the unwillingness of most golfers to accept poorer playing conditions in exchange for reduced chemical and water use on their courses.

According to a recent survey of golfers conducted by the National Golf Foundation, Continued on page 30

STUDY SHOWS:

Name designers pull higher dues and green fees

BY PETER BLAIS
HARRISBURG, Pa. — Private courses designed by signature architects command higher initiation fees and dues.

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Architects' fees are not the only factor in a course's success. The study also found that courses designed by signature architects command higher initiation fees and dues. The study also found that courses designed by signature architects command higher initiation fees and dues. The study also found that courses designed by signature architects command higher initiation fees and dues. Continued on page 3

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SENSITIVE STROKES

Architect Ron Carl worked sensitively around wetlands at the newly opened Indian River Club. Located in Vero Beach, Fla., Indian River is only the third course in the world to be granted Audubon Signature status. The course also embodies the Environmental Principles for Golf Courses recently issued at the conference on Golf & The Environment. (see page 16)

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Shinn Golf Club in Nigeria, Japan, a new design from incoming ASGA president, Denis Griffiths.

on course costs

BY MARK LESLIE
Worried the cost of golf is starting to drive people from the game, the incoming and outgoing presidents of the American Society of Golf Course Architects have presented arguments that would lead developers to make harsh choices about their projects.

Picking sides in a point-counterpoint atmosphere, Past President Jeff Beamer of Golfscapes in Houston and new President Denis Griffiths of Braselton, Ga., agreed construction costs have escalated too high but disagreed over the cure. "Ten years ago there were few upscale daily-fee projects," Griffiths said. "Everyone today is doing

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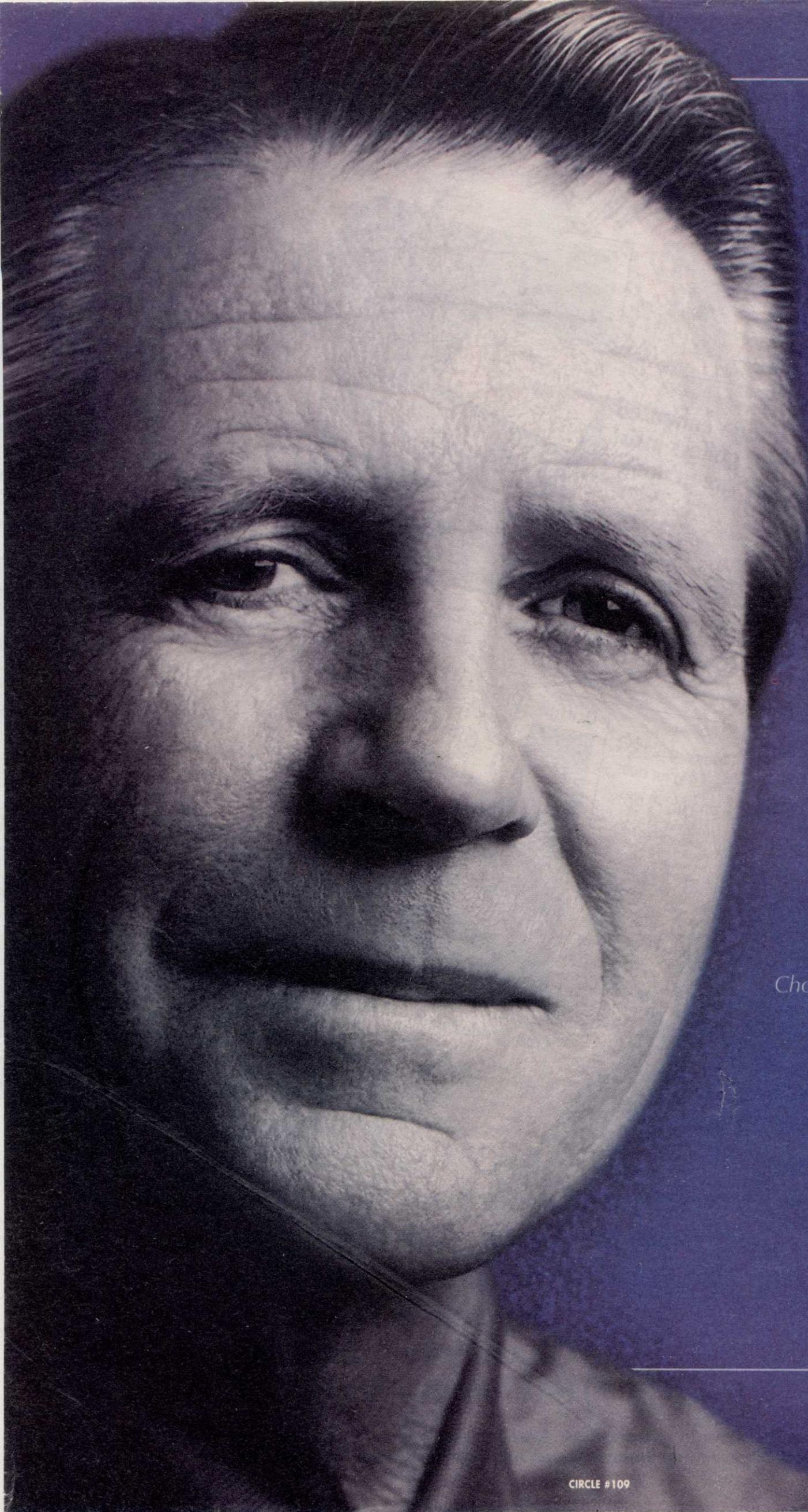
Ciba-Sandoz deal creates new firm: Novartis

BY HAL PHILLIPS

Consolidation in the chemical trade continues apace, as Des Plaines, Ill.-based Sandoz Agro and Greensboro, N.C.-based Ciba — both divisions of enormous Swiss conglomerates — have agreed to join forces, creating a \$6 billion agricultural giant. The new entity will be known as Novartis. Bill Liles, head of Turf & Ornamental at Ciba, is fourth in line to succeed Bill Liles, head of Turf & Ornamental at Ciba. Then came Ciba-Geigy, for

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