El Niño'd: West Coast gets hammered, with rains, floods

The winter's intense El Niño-driven storms have hammered California golf courses, highlighted in early February when a series of weather-related records were broken. Several areas of the state recorded the lowest barometer readings ever in February.

California courses found that no amount of installed drainage could handle the rains since they began on already wet ground. El Niño was not choosy about the golf courses it attacked as rivers, streams, drainage and retaining walls.

Employees come first at Gotham

California Golf Club was one of the early purchases that propelled Gotham Golf Partners into the world of course operations.

Mower manufacturers see 'ease' to please

Hoping to make life a little easier for golf course operators, major mower manufacturers are addressing real-life concerns — everything from ease of operation and maintenance to noise pollution — as they bring the next wave of products to market.
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Oregon's best and most experienced bentgrass seed producers grow these exceptional creeping bents to the highest certification standards; free of any objectionable weeds. It's good economy to seed with the new Penn A and G bentgrasses from Tee-2-Green®—the icing on the cake.

Better built greens deserve the better bentgrasses. Insist on the genuine 'Penn Pals™': Penncross, PennLinks, Penn'Trio, Penn A-1, Penn A-2, Penn A-4, Penn G-1, Penn G-2, Penn G-6; plus Penneagle, Pennway and Seaside II for fairways.

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CIRCLE #101
Belchertown, Mass. — Developers planning a 6,800-yard, par-70 golf course at Hillcrest Orchards in this town between Springfield and Amherst, Mass., hope to start work later this summer and open by the year 2000. Edwin Waskelewicz and partner Mark Kramer of Cold Spring Development Corp., plan to build an 18-hole daily-fee course along with 120 to 140 custom-built condominiums. The Coldspring Golf Course has been designed by architect Marvin Armstrong of Francestown, N.H. As planned, the condominiums would be nestled on a hill east of Route 21 with the golf course spread out below.

Lakeland, Fla. — Golf course architect Ron Garl has been named president of the newly formed Florida Golf Alliance (FGA).

"Florida's Golf Industry has been splintered far too long," said Garl. "With all of the golf associations and organizations residing in Florida under the Florida Golf Alliance, we will become a healthy resource that the industry can draw upon and a strong influence to contend with in Tallahassee."

The Florida Golf Alliance was formed after several formal meetings held over 14 months from September 1996 through last December, with most of the core Florida golf associations/organizations invited or in attendance.

The mission statement for the incorporated FGA reads: "The Florida Golf Alliance's mission is to unify Florida's golf industry into an effective alliance in order to promote and to protect the industry as a major contributor to the state's economy, environment, and quality of life."

"It just makes sense," said Roy Bates, immediate past president of the Florida Turfgrass Association and vice president of the FGA. "We're all conducting research and providing grants for special projects to benefit our respective association goals. But few of us are sharing the knowledge, or even know how to ask that might have information to help a particular cause."

"The FGA is a means for the industry to unite and start to become aligned for a targeted productive future," Bates added.

The founding FGA members and board of directors are PGA Tour representative Richard Bowers, LPGA Tour representative Terri McCracken, Tommy Armour Golf Tour representative Terry Fine, Florida Turfgrass Association representative Roy Bates, Florida Chapter Golf Course Managers Association representative Mike Fiddelke, Florida Golf Course Superintendents Association representatives Joe Ondo and Joel Jackson, and Mercury Titleholders Championship representative Ann Palmer.

Garl was voted president because of "his dedication to the sport and obvious dedication to serve Florida's golf industry through his many and varied affiliations with Florida's golf associations."

Garl has served on numerous boards and committees over the past 28 years. "Although each affiliation is treasured by me for different reasons, my service to the Florida Turfgrass Association on the IFAS advisory board for the University of Florida comes closest to what I envision for the Florida Golf Alliance," said the new president.

"Our goals were consistently focused on the industry as a whole — not various special projects. That's what the FGA will be about — all industry representatives uniting and making decisions as an alliance regarding priorities to benefit Florida's golf industry."

"Given the distinction of the founding groups that have banded together to fund the start-up of this alliance I am confident that this unification will succeed," Garl said.

At the next meeting a special invitation to invite all identifiable Florida golf associations and organizations to become FGA members and share a seat on the board of directors.
**Fazio ringing Philadelphia’s bell**

NORTH COVENTRY, Pa. — Golf course architect Tom Fazio is quickly making his mark on the land of Chester County outside Philadelphia.

Fazio has been chosen to transform the 172-acre Gruber estate in northern Chester County into a private, 18-hole facility called Bellewood. Bellewood will be a 6,877-yard, par-72 course straddling Route 724 just south of the Schuylkill River. A 16,000-square-foot mansion built in 1864 will serve as the clubhouse. An additional 6,000-square-foot mansion will be used for overnight accommodations and meetings.

When it opens, possibly sometime in 1999, Bellewood will be the second course in Chester County designed by Fazio. The first is Hartefeld National in New Garden. Hartefeld National will host the Senior PGA Tour’s Bell Atlantic Classic later this spring.

As is often the case, Fazio will be working with another classic piece of property, with rolling terrain and thousands of pink and white dogwood trees. The Gruber Estate, once owned by the Edward L. Gruber family which made its fortune manufacturing T-shirts and undergarments, had a reputation for finely manicured grounds. More than 70 acres of the site were maintained and will be the setting for eight holes.

Fazio’s designs feature five holes north of Route 724 and the remaining 13 holes to the south. Plans call for a tunnel to be built under the roadway to provide better access. The site will feature two main water hazards, an existing pond and an artificial lake. There will also be a driving range, practice area.

Earth Enterprises of Kimberton, Pa., is handling the construction. Earth Enterprises Tom Drauschk has said he hopes construction will start this spring.

**Meadowbrook makes splash in City of Brotherly Love**

WEST CHESTER, Pa. — Meadowbrook Golf Group Inc. is about to begin construction on a new upscale, daily-fee course here.

Tattersall Golf Club will be located 45 minutes from Philadelphia, ranked by the National Golf Foundation as one of the most undersupplied golf markets in the country. The Rees Jones-designed layout will border an upscale housing project developed by Tattersall Development Co. The total development cost is estimated at $10 million.

Meadowbrook will operate the course once it opens. Meadowbrook Golf Group in the partnership Meadowbrook formed with Apollo Real Estate Investment Fund II to develop and acquire golf properties. Tattersall is the first development project for Meadowbrook under its $36 million commitment from the Apollo fund.

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The Aercore 800 delivers the...
Proposed R.I. track runs into Revolutionary problem

PORTSMOUTH, R.I. — British golf course developer Peter DeSavary's plan to build an 18-hole links-style golf course and luxury lodging on a 250-acre site here has run smack into 18th-century history.

DeSavary wants to build the new facility for the Carnegie Club, the group which owns and operates the elegant but remote Skibo Castle and its 7,500-acre grounds — including an 18-hole golf course — in northern Scotland. Skibo Castle has hosted a growing list of political, sports and entertainment celebrities, including U.S. President Bill Clinton, for golf, gourmet dining and luxury lodging and a host of other activities from hunting and archery and overnight camping.

The Rhode Island site proposed for a new golf course and lodging, however, includes land where American forces battled the British troops on Aug. 29, 1778. The site of the Battle of Rhode Island has remained relatively untouched for more than two centuries, according to the Providence Journal-Bulletin.

Some stone walls, which shielded Colonial military forces and newly freed slaves who also fought the British, are still standing at the site.

Richard Greenwood, a project review coordinator for the Rhode Island Historical Preservation and Heritage Commission, has called the site, "a rare survivor." Preservationists have pushed for an independent archeologist to survey the property and outline its most historically sensitive sites on the former battlefield.

The course proposal has cleared its first major hurdle, receiving a special permit from the local Zoning Board of Review. DeSavary told the board that most of the land would be left in its current state.

For the golf course project to move forward, it will still need the approval of the Army Corps of Engineers and Rhode Island's Coastal Resources management Council, both of which seek advice from the preservation commission.

Course planned for R.I. estate

NORTH COVENTRY, R.I. — A private, 18-hole course has been proposed on the grounds of the massive Gruber Estate.

The estate, home of the late industrialist Edward Gruber, is owned by TPT Partners. TPT has said it would like to develop a course or a retirement community.

The proposed course would take in the entire Gruber Estate. That includes Edgewood Estates, 242 acres on the south side of Route 724 and the prime 16,000-square-foot Georgian Mansion, along with Bellevood Estates, 27 acres on the north side of Route 724 and the 6,000-square-foot Colonial Mansion. A clubhouse would be constructed at the Georgian Mansion.

Construction on the course could start this spring with completion by June 1999. Real estate developer Charles Tornetta is one of the principals of TPT.

Golf plan set to land in Bay State

WEYMOUTH, Mass. — A plan to convert part of the decommissioned South Weymouth Naval Air Station to a shopping mall has won approval from Town Meeting voters.

Residents in neighboring Rockland and Abington still must approve the proposal, which also calls for a golf course, housing for the elderly and open space.

The three towns must agree on a plan for the 1,400-acre site by June 30, or lose much of their control over the site's future to the Pentagon and other federal agencies. Approval is expected in both Rockland and Abington by the end of March.

The planned anchor for the development is a 1.5 million-square-foot entertainment-themed outlet mall, the brainchild of Mills Corp. of Arlington, Va.
Els, Kemper team on Md. links

IJAMSVILLE, Md. — 1997 U.S. Open Champion Ernie Els and Kemper Sports Management are teaming up to design an 18-hole golf course near Ijamsville to be called Whiskey Creek Golf Club.

Developer Sam Dunn has said he'd like the facility to open for play by summer 1999.

The Chicago-based Kemper, which owns and manages 25 courses around the country, including the nearby Holly Hills Country Club, and also sponsors the Kemper Open golf tournament, will manage the club. Well-known golf instructor David Leadbetter will also reportedly help develop the course and offer a golfing school. Ryan Inc. Central is the builder.

The course was at one time set to be called Ironwood, but Dunn decided to change the name to Whiskey Creek. He discovered there were at least 10 other courses in the country with the name Ironwood and decided on Whiskey Creek, a reference to prohibition-era activities in the region where the course will sit. According to Dunn, prohibitionists burned a Price's Distillery to the ground at a site not far from the course.

Construction is set to start this spring.

Fla. resort links to be restored

HOLLYWOOD, Fla.— A new Diplomat Resort & Country Club will soon be built here.

The United Association of Plumbers and Pipe Fitters plans to spend nearly $400 million to redevelop the Diplomat's 21 acres and redesign its golf course. Architect Joe Lee is overseeing the course renovation.

Plans call for work to begin next month on a 30-story, 1,000-room hotel. Driscoll Development also intends to build a 107-unit condominium complex.

In the early 1960s, The Diplomat was among the great South Florida resorts. Reopening the Diplomat, once Hollywood's biggest employer, has been one of the city's top economic goals. Driscoll estimates the new Diplomat will create 2,100 jobs and generate $28 million in tourist spending the first year.

The project will have a new 150-acre country club, including a championship course and 12-court tennis center.

Driscoll has applied for building permits, but the project has a number of hurdles to overcome before construction can begin. In addition to needing approvals from the Federal Aviation Administration and state Department of Transportation, it will have to undergo an environmental assessment and pass local reviews.

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Arnie, Jack to team up at World Golf Village

ST. AUGUSTINE, Fla. — The first of two highly-anticipated golf courses designed by four living legends of golf has opened at the World Golf Village, while the second will soon be underway.

“The Slammer and The Squire” — an 18-hole course designed on the collaborative vision of golf legends Sam Snead and Gene Sarazen, opened last month. Later this spring, ground will be broken on the second collaborative 18-hole effort there by two of the game’s all-time greats — Arnold Palmer and Jack Nicklaus. “The King and The Bear” — named for co-designers Palmer and Nicklaus — will be set with a residential community about four miles west of World Golf Village.

According to the Florida Times Union, architects from Palmer Course Design in Ponte Vedra Beach and Nicklaus Design in West Palm Beach have already held discussions on the philosophy of the course’s design. Nicklaus and Palmer reportedly talked things over at the Senior Skins Game earlier this year and have continued the conversation both on and off the course.

Palmer and Nicklaus, who waged so many memorable tournament battles through the years, have both designed more than 100 courses. But this project will mark a first for each in many ways. Lead designers for both firms have said the course will reflect a genuine collaborative effort with input from both legends on each hole, as opposed to having one man design nine and the other another nine.

“Both of them let the land dictate the design,” said Greg Stang of Palmer Course Design. “They don’t like to force anything.”

Bruce Borland, a senior designer with Nicklaus, has said, “It’s going to be a flat Florida course,” and “very naturalized in its look.” He said both Palmer and Nicklaus are also very sensitive to designing playable courses for all golfing abilities with different strategic options on each hole.

“I think they’re going to be very compatible,” said Borland.

Giles, George join forces in Va.

MANAKIN-SABOT, Va. — Work is scheduled to start by May on Kinloch, an 18-hole daily-fee facility that will feature a course designed by Lester George in collaboration with Virginia golf legend Vinnie Giles.

Giles is a former U.S. and British Amateur champion and Walker Cup captain who now represents more than 25 professional golfers as an agent. CBR Associates of Richmond is developing the course, which will be set on 275 acres near the 3,400-acre West Creek commercial-industrial development. The course will be part of a 645-acre project that will include residential development and a lake.

Kinloch will also feature a unique finishing touch — a 170-yard par-3 19th hole that will play across a lake back to the clubhouse. George said the hole — which will be optional — will give golfers a chance “to settle bets and have something to do on the way back to the clubhouse.”

KIAWAH DEVELOPERS TO BUILD ON NEIGHBORING ISLAND

SEABROOK ISLAND, S.C. — The two developers of Kiawah Island have bought a 1,044-acre property on this coastal island called the Andell Tract and plans call for an 18-hole course designed by Tom Watson. The two buyers, Kiawah Resort Associates (KRA) LP and Virginia Investment Trust, said they will not build a harbor or marina on Andell Tract.

Charles-ton-based KRA, which develops and resells homes on Kiawah, bought a large parcel facing Captain Sam’s Inlet and plans to build a new golf course community.
GULFPORT, Miss. — Who is the newest player on the fast-growing Mississippi Gulf Coast golf course scene? Try the Naval Construction Battalion Center in this coastal city.

The base, which has a nine-hole layout since the mid-1970s, is adding nine holes in a substantial upgrade. The newly expanded 18-hole course should be ready by November.

Miss. base expands course

Architect Willard C. Byrd designed the addition. The new Pine Bayou Golf Course will measure about 6,800 yards and feature numerous new bunkers and hazards.

Base officials were faced several years ago with a decision over the fate of the course and decided to move ahead with a major upgrade and expansion. The facility will also be getting a new clubhouse in 1999.

Commander Jack Zimm, the base's executive officer, told The Sun Herald of Gulfport: "We had to make a decision... Either make this course a viable proposition for generating revenue or get out of the golf business." Zimm said the expanded Pine Bayou will be comparable to nearby courses like The Oaks and Windance Country Club.

The base has already taken a step toward generating more play at Pine Bayou. In April, the Seabees opened the course to the public. The expansion should allow the facility to host from 40,000 to 50,000 rounds per year, up from 17,500 in 1997.

Williams, Gill design new Dallas layout

CARROLLTON, Texas — Construction is underway on Coyote Ridge Golf Club in this Dallas suburb.

The 18-hole, daily-fee track includes a practice facility, beverage/banquet services and a pro shop. The $5 million course is part of the 1,000-acre master-planned community of Indian Creek Ranch.

Williams & Gill Associates designed the course for developer Mesa Golf Inc. Nine holes will play through an abandoned gravel quarry adjacent to the Trinity River and the other nine along a ridge overlooking northern Dallas.

The course is scheduled to open this fall.

Madison board OKs Wis. track

MADISON, Wis. — Prospects for a golf course between Madison and Sun Prairie have improved with the Madison Board of Estimates' endorsement of the purchase of 79 acres for $1.73 million and spending $195,000 for consulting a course architect and soil lab.

The City Council must still approve the purchase and consultant contracts. The purchase would give the city 72 percent of the 247 acres needed for the Madison-Sun Prairie Open Space Project, which includes plans for a golf course on the property.

Remaining land acquisition includes the 18-acre Whitson Swift property and the 50-acre Tancho property. The 18 acres aren't considered vital for a golf course, and the 50 acres will be donated to the city under an annexation agreement if certain conditions are met by next April.

Estimated costs range from a $2 million for a nine-hole course to $4 million for an 18-hole layout.

SANTA FE MAN HOPES TO BUILD NEW LAYOUT

ARROYO SECO, N.M. — A Santa Fe man wants to build an 18-hole course on state trust lands south of Espanola and use the city's wastewater to irrigate it. Eddie Peck, who runs the Santa Fe Family Golf Center, wants to build a daily-fee layout.

He said his partnership, Capital City Golf Services, has secured financing to build the proposed $7.5 million project.

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Results outside of the lab are just as intriguing. Dennis Ingram, CGCS, Forest Oaks Country Club (site of the 60th Annual Greater Greensboro Chrysler Classic), writes:

"Toro BioPro products give me a predictable growth pattern, and an increase in rooting mass. Compared to past years, the rooting mass is 30-40% higher."

Apply Multi-Purpose through fertigation, conventional spray, or tank mix it with N-P-K nutrient blends as an organic supplement to attain these results for your turf. Call your Toro Distributor for details.
Feds delay completion of Scottsdale golf facility

SCOTTSDALE, Ariz. — An unexpected federal regulatory hurdle has pushed back, for at least a year, the completion of the long-delayed Scottsdale Links, public 18-hole course in the Indian Bend Wash Greenbelt near the Salt River Pima-Maricopa Indian Community.

Construction was scheduled to start in January on Scottsdale Links at Indian Bend, a $5 million joint venture between the city and private golf course developers. But a permit needed from the U.S. Army Corps of Engineers halted those plans. The delay pushed back the anticipated opening of the 132-acre, 18-hole layout from November of this year to November 1999.

This latest development is yet another setback for golfers in the area who have been waiting more than a decade for a new course that would improve an undeveloped and often unkempt section of the Indian Wash Greenbelt. The city has been unable to get at least two previous proposed golf course projects at the site off the ground.

The key stumbling block for the project is that 90 acres are within regional flood-control channels, over which the Corps has jurisdiction. A misunderstanding between the city and the developer, Even Par Golf LLC, and the Corps over whether a special permit was needed caused the delay. Even if the Corps grants the permit, the project still requires final design approval from Maricopa County.

Oregon’s Indian Bend nears local govt approval

BEND, Oregon — The city has filed the last formal paperwork for an 18-hole municipal course near the sewage treatment plant east of town.

The site plan for Indian Bend Golf Course was submitted to Deschutes County for an upcoming hearing on the $4.5 million, privately financed project. Plans for 5.5-acre pond to store effluent for irrigating the course have been scrapped, as have all other water features, at the urging of the Federal Aviation Administration. The FAA was worried the ponds would attract migratory birds that could interfere with planes at nearby Bend Municipal Airport.

A practice range, putting greens, 4,350-square-foot clubhouse, parking for 170 cars, paved cart paths and 5,000-square-foot maintenance building are also planned. If the proposal wins approval soon, construction could start this spring with the course ready for play by mid-1999.

The county first proposed the course at the site in 1991. The city took over the project in 1996. Last fall the city agreed to a 25-year, $100-a-year lease of the 170-acre site to SRL Corp., a local group which includes PGA golf pro Greg Little, Richard Page, Ray Schmidt and course architect Robert Muir Graves.

PALMER TO DESIGN COURSE IN SACRAMENTO

SACRAMENTO, Calif. — Golf Dimensions has signed a 45-year lease with the Sacramento Municipal Utility District to develop, finance and operate the Rancho Seco Golf Facility to be built on a portion of a 1,600-acre site owned by the District. The daily-fee course was designed by Palmer Course Design Co. The project design is complete and all permits secured. Plans include a full-sized practice facility and 12,000-square-foot clubhouse. Golf Dimensions expects to break ground in April and have the course ready for play by January 1999.

GOLF COURSE NEWS

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Everybody’s talking junior golf

When I first set sail for my trip around the golfing world — itinerary for the 2002 season, with visits planned in previous columns — I was dead sure I’d return with a file full of trend stories to vividly detail the “state of the industry” in the countries of Europe and Asia. What I found was quite surprising.

At Fairways ’98 in Munich and Golf Asia in Singapore, two top conferences for setting the stage for the global market, the underlying theme was junior golf and how to attract more kids to the game. I was almost certain that the talk in Munich would be about the solid growth of golf in Germany, the proposed “mini boom” coming in Greece or the fallout of Textron’s purchase of Ransomes. Instead, the cocktail party chat I was able to ease into revolved around the need for Europe to move away from the pricey signature course and into the affordable, sustainable project.

Sound familiar? Getting sick of hearing it?

The consensus at Golf Asia was that the wild economic roller coaster ride would obviously calm in two to four years, leaving golf to ease its way back into the consciences of developers and players after a temporary hiatus. If one overriding message emanated from the Golf Asia conference it was that once economic tensions have eased, golf will come back stronger and smarter — and hopefully with a slew of kids ready to embrace the game.

Day one of the conference, which featured a country-by-country analysis of the golf market in Asia, started to sound like a broken record.

A.S. Khamis, managing director of ASK Golf Management Sdn Bhd, is about to open and manage Malaysia’s first public golf course. Scheduled to open at that end of May, the course will be located in the Klang Valley near the International Airport in Kuala Lumpur and will host Malaysia’s first full-time golf academy.

The key to golf’s future in Indonesia, said Bob Horan, general manager at Klub Golf Bogor Raya, is aggressive marketing and the development of young golfers. Peter Goh, general manger of Laguna National Golf & Country Club in Singapore echoed Horan’s sentiments, commenting that Singapore needs to improve its infrastructure for facilities that can further stimulate growth, including driving ranges and public competitions. Singapore will also have to capitalize on the recent growth of women players.

I was ready for a country-by-country gloom-and-doom report, but what I heard was cautious optimism and positive plans for building golf for Asia’s future.

I wanted to forward a few thank-yous to our Hawaiian friends at Turtle Bay Golf Course, Kahuku, Koolau Golf Course, Kanoeha, and the Sheraton Makaha Resort & CC, Makaha, for their hospitality while I was ready for a country-by-country gloom-and-doom report, but what I heard was cautious optimism and positive plans for building golf for Asia’s future. I was ready for a country-by-country gloom-and-doom report, but what I heard was cautious optimism and positive plans for building golf for Asia’s future.

To bring new players into golf, including “non-traditional” players. Still, as you point out, private owned public courses need to be profitable to keep golf affordable. The good of the game requires courses to be able to pay their workers and maintain their facilities. That means charging a fair price for a decent product, and doing our best to keep new golfers in the game and experienced golfers coming back more often.

Sincerely,

Chuck Bennett
General Manager
Birds Eye Link Golf Course
North Canton, Ohio

Time to stop global whining!

Stop Global Whining!
Warning! No Whining! We’ve heard enough. Enough of what, you ask? I’ve got a list a scroll long, but I’ll keep it to a choice few.

1. Listen, if you think your personal circumstances are bad, look around. Los Angeles, San Marcos, a brand spanning new golf course where superintendent Scott Nair watched, helpless, as the Santa Ynez River went berserk, changed course and washed away his 3rd green and fairway. Or look at Pebble Beach’s Mark Michaud, who walked out onto the course one day to find the access road to golf cart parts and maintenance vehicles to the 15th tee washed away, along with about 20 feet of subsurface. Or look at the many superintendents in Maine where the Ice Storm of the Century snapped; cracked and broke gazillions of trees, leaving a carnage that reminded one of London after the air raids.

2. Now do you want to Whine? OK. Then look at the superintendents in Florida who have lost their jobs — not trees, but livelihoods — because they could not control the weather. They couldn’t command the clouds to part and let some sunshine on their turfgrass so that it would grow. And an executive committee here, or an owner there, determined the dead grass was the superintendant’s fault.

3. A reporter of mine once was a paraplegic. While in college, he had fallen from a tree, and then soon had used two crutches to get around. Yet he was always pleasant beyond belief. I was close to him and to the point that I could ask him how he managed in such high spirits. “Whenever I get down,” he said, “I think of the person that I am a quadriplegic.”

So, now will you please Stop Global Whining!

Here’s a short list of who else I want to stop Whining:

• The Richmond, Va., city officials who put off the Richmond First Tee Program (which was donating the $2 million to build a kids’ course) until it had to move onward with neighboring Chesterfield County — and then got angry that the Foundation didn’t wait around for them. You folks will be so-o lucky if the First Tee folks do come back and build a second course with you.

• The PGA Tour officials lamenting, and appealing, the court’s ruling in the Casey Martin case. Hey, the guy’s a great golfer who can’t walk. How many handicapped people will ever have the talent to earn a spot on the Tour? One in a million? A billion? Show some heart and let him ride.

• Sierra Clubites, who disparage professional golf course superintendents, color the truth and outright lie to advance their agenda.

• The Global Warmheads, who haven’t got a clue. Show me the science, will you? No, you won’t, because it doesn’t exist. And yet you ask? I’ve got a list a scroll long, but I’ll keep it to a choice few.

Stop Global Whining!

Continued on page 14

Letters

Thank you for Mark Leslie’s very perceptive commentary in the March issue. Based on many recent articles in other publications, one might think that, all of a sudden, and over the past few years, golf is “opening up to women and minorities.”

Anybody who believes that has probably not spent much time at their local, family-owned public golf course, where 98 or 99 percent of rounds of golf in the United States are played at public facilities, and have been for many years.

Here in Ohio, and in much of the country, a nine-hole ticket is available for little more than the price of a movie ticket. I operate an affordable daily-fee public course, where $3 gets you three holes of golf on our practice course, a kind you can play nine holes for less than $20, and just $15 gets you 18 holes on either of two regulation courses.

At our first tee, and at the first tee of family-owned public courses everywhere, golf is affordable and accessible, without discrimination. Also, we are actively involved in sponsoring youth golf programs. We give away many rounds of golf and many dollars each year to grow the game and to bring new people into golf, including “non-traditional” players.

Still, as you point out, private owned public courses need to be profitable to keep golf affordable. The good of the game requires courses to be able to pay their workers and maintain their facilities. That means charging a fair price for a decent product, and doing our best to keep new golfers in the game and experienced golfers coming back more often.

Sincerely,

Chuck Bennett
General Manager
Birds Eye Link Golf Course
North Canton, Ohio

With an appeal to those who are responsible for TV golf commentary, please listen! Anyone who watches TV golf has heard Johnny Miller and other commentators say, “This putt is going ‘down grain.’” I am not sure the TV audience understands what this means. The word “grain,” as used by TV analysts, is grossly overused and misunderstood by the golfing public.

Having spent my professional life studying turfgasses, with a Ph.D. in turfgrass breeding, I have worked many hours collecting, observing, breeding and

Continued on page 59
You’ve got Poa on 3.

Fire Ants on 8.

Pythium on 13, 16, 17 and 18.

Crabgrass on 6.

Turf Stress on the back 9.

Summer Patch on 7, 8 and 9.

You may be managing your course one problem at a time.

And a Board Member on the first tee.
At Novartis, we're committed to continually bring you innovative products. And now we'd like to introduce an entire series of products — the Novartis Total Turf Program.

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The Novartis Total Turf Program begins with Primo for Pre-Stress Conditioning. That's because extensive testing has proven that treating with Primo is the best way to prepare a golf course and strengthen turf in advance to cope with extreme conditions such as drought, heat and disease, that make up a typical season.

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Simply put, Barricade is the longest-lasting and best-performing preemergence herbicide for the control of Crabgrass, Goosegrass and Poa Annua. That's because Barricade has low solubility and volatility, meaning it stays where you put it in the weed germination zone.

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Oak Wilt
Dutch Elm Disease
Fire Ant Control
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Golf course ‘living lab’ Cal State Poly’s aim

By Doug Saunders

POMONA, Calif. — Dealing with society’s trash is an issue that draws little attention from the public until a landfill needs to be created or closed down. After operating a 200-acre landfill on campus property since 1977 in conjunction with the Los Angeles County Sanitation Districts, California State Polytechnic University here hopes to close the landfill and build an 18-hole golf course that will serve as a living laboratory.

The landfill has served two purposes over the last four decades. It has been a repository for the tons of refuse from the growing LA metropolis, and has served as an outdoor lab for waste management, environmental sciences, engineering, and agriculture. “The landfill has been very beneficial to the university from not only an economic standpoint, but also as an educational tool,” said Ed Barnes, executive director of the Land Lab and Asset Development for Cal Poly Pomona.

At some point landfills do reach capacity and the next question was how to best close this one down. Strict EPA guidelines specify the closure procedures for landfills. The university has decided that, in conjunction with closure and monitoring regulations, creating a golf course can continue to provide economic and educational benefits into the future. “Our desire,” Barnes said, “is to build and 18-hole course that will generate income through greens fees, provide a recreational outlet for students, be of value to our athletic program, and give more opportunities for internships for our colleges of hotel and restaurant management, turfgrass management, landscape architecture, and biosciences.”

Cal Poly recently selected Golf Dimensions, a golf course design firm based in Irvine, to help the university through the project’s planning and construction phases. Golf Dimensions recently completed the

Wake up to soil acidity tests, Hummel tells superintendents

By Mark Leslie

PROVIDENCE, R.I. — Decrying the fact that many of them have no idea how acidic their soil is, Dr. Norm Hummel called on turfgrass managers to establish soil-testing programs “to define the best fertilizer regime” for their properties.

Speaking at the New England Regional Turfgrass Conference here on March 4, the former Cornell University professor said: “As basic as it is, it’s amazing to me how many people don’t have an idea of what the pH of their golf course or athletic field is at.”

A soil test can address soil acidity and liming requirements, pH reduction, soil phosphorus and potassium, secondary nutrients like calcium and magnesium, and soluble salts for those in coastal areas, said Hummel, who now operates Hummel & Co. in Trumansburg, N.Y.

Calling pH “one of the most basic soil fertility aspects,” Hummel said the optimum reading for most cool-season grasses is in a range of 6 to 7.

“One of the reasons is that optimum nutrient availability is found within that slightly acidic range,” he said. “When you get into higher pHs, many of the micronutrients are there but tied up in unavailable forms. When you get much below that, nutrients

Sunlight assessment, other tools taking turf care into 21st century

By Mark Leslie

PROVIDENCE, R.I. — Sunlight assessment and digital imaging — two new technologies that are pulling golf superintendents into the computer age — will also help them deal with the difficult task of course renovations, according to a spokesman for the U.S. Golf Association Green Section.

“Frankly, most of the people here have the equipment and capabilities to operate this technology,” said Dave Oatis, director of the Northeast Region, told the New England Regional Turfgrass Conference here.

Oatis hailed the sunlight-assessment technology developed by Arbor Com Inc. of Toronto area. Company owner Scott Robinson, an arborist from Toronto, developed this tool “and it is mind boggling what they can do with it,” Oatis said.

Oatis cited the usefulness of digital imaging as “limited only by your imagination.”

“On difficult sites with difficult memberships, and for particularly important trees, you can use [sunlight assessment] to document and quantify how many and which trees need to be removed” to save shaded turfgrass, Oatis said. “You need eight hours of sunlight for healthy turf.”

The position of the sun as it rises differs by approximately 22

Continued on page 20

Continued on page 21

Continued on page 25

Aspetuck Valley Country Club in Weston, Conn., is home to all types of birds, waterfowl and other creatures.

Aspetuck Valley fulfills Audubon requirements

WESTON, Conn. — Aspetuck Valley Country Club has achieved designation as a Certified Audubon Cooperative Sanctuary by the Audubon Cooperative Sanctuary System (ACSS), the educational division of Audubon International.

“The membership is very proud that Aspetuck Valley is a Certified Audubon Cooperative Sanctuary golf course,” said superintendent Steven Colangeli, who initiated the program at the club in 1996.

“It’s a great feeling to know that a golf course can act as a recreation area for golf as well as a wildlife sanctuary. It’s also nice to know that our daily maintenance practices and

The policy game of golf

By Ron Dodson

One of the major problems facing the golf industry today is whether governmental action is the most effective way to protect or restore the environment. Actually, it’s a question of whether the public believes governmental action is the only way to protect or restore the environment. Currently, there’s a question of whether the public believes governmental action impacts us all — individually and collectively.

Because the public’s awareness of environmental issues and golf courses is at an all-time high, it’s timely to take a

Continued on page 25
CARRABASSETT, Maine — Ed Michaud may just transform the phrase “jack of all trades, master of none” into “master of both.” The Sugarloaf Golf Club superintendent has kept his course in the No. 1 ranking in this state for years while gaining each season on the nation’s best. And last September, Snow Country magazine named the Michaud-designed terrain park at Sugarloaf USA Ski Area the best resort park in North America, while ranking Sugarloaf one of the top five resorts on the continent for snowboarding.

From the world where he for nine years has maintained the “bunkers,” “berms” and “greens” of Sugarloaf Golf Club, Michaud five winters ago began sculpting Sugarloaf USA’s snowboarding world of “pipes,” “parks,” “table tops” and “pyramids.”

His reputation for keeping the golf course in top shape despite the battles with heavy and lingering snows may already have been overshadowed by his wintertime work, where local boarders and skiers revere his artistry and where Sugarloaf owner American Ski Co. (ASC) is sending him around the country preparing slopes for national snowboarding championships.

Instead of carting around hose, plug-cutters and other greenkeeping paraphernalia behind his Truckster, Michaud is operating a Snowcat with a Halfpipe Grinder mounted on the front, or dragging a mammoth Pipe Dragon behind a Bombardier groomer.

In addition to building Sugarloaf’s giant slalom and half-pipe for the only Grand Prix event on the East Coast the last two years and the Olympic tryout this winter, he built the pipe at ASC’s Attitash Mountain, the terrain park at The Canyons in Utah, and “carved the pipe” at Sunday River [in Bethel] for the National Snowboarding Championships at the end of March. Ski Wentworth in Nova Scotia, which is not even an ASC slope, hired Michaud to build its terrain park and pipe.

“I was one ecstatic person,” said Michaud about learning of the Number-One ranking his terrain park received last fall. But it was surprising that it came before his golf-course rating.

“My goal when I took over as superintendent in 1989 was to make the top 100 list in 10 years,” Michaud said of the Robert Trent Jones Jr.-designed golf course. “I knew we had the track. Granted, not the amenities, but we had the layout. Those who play here go away shaking their heads. They can’t get over it. We’re now 23rd in America’s upscale public courses, and Golf Magazine’s top 100 list. But not Golf Digest’s top 100.”

“Some courses in the top 100 list are ranked behind us on top 75 upscale list [including Bay Hill and Golden Horse-shoe]. The problem is we need 24 raters to rate the course before we can qualify to make the top 100 list.”

Michaud takes solace in the fact that Men’s Journal last year listed Sugarloaf Golf Club the No. 1 course in America. “Remote But Worth the Effort.”

While seeking recognition for his course, Michaud is enjoying the challenges of his two jobs and meeting the increasing demands for perfection at both. “The snowboarding is a little more fun, but the golf is more satisfying,” he said.

“You can get really creative making the snowboarding pipes and parks. You look at the flow of the land, the width of the trail and the pitch, and think about what kind of feature will fit. It’s a lot like golf. An architect tries to use the lay of the land rather than fight it, to blend it in so it looks like it belongs there. I want the tabletop to look like it belongs there.

“I’d like to get my hands on a 200-acre farm and see what kind of a golf course I could build. Something tells me it would be a little unorthodox.”

Looking at the pitch of the land, Michaud determines how fast a snowboarder or skier will go down through a section so he can build a ‘hit’ — or feature — accordingly. “Then you can develop a hit like a tabletop, or tee-top spine, or flat-top spine, or double-roller, bank turns, pyramids — whatever your imagination comes up with,” he said, breaking into his wintertime vernacular.

How does the park feel compared to the course when his work is done?

Continued on next page
In a single stroke, professional golf course superintendents can control dollar spot, leaf spot, spring dead spot, melting out, brown patch, crown rot—in fact, more than 15 tough diseases in all. They do it with Eagle® fungicide, one of the tools every pro should have in his bag of tricks.

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"In 1997, I applied Eagle on July 2nd to prevent dollar spot and went until July 23rd before making a second application. It did a great job and helped control brown patch, too. Considering the length of control it got me and what I paid for it, Eagle's cost effectiveness was fantastic."

When you add up all the advantages, like low use rates, cost effectiveness, and broad-spectrum control, it's easy to see why Eagle is the hottest tip from the only pros in golf who really matter: The superintendents.

Call 1-800-987-0467 for more information.
Tifton Lab earns A2LA accreditation

TIFTON, Ga. — Tifton Physical Soil Testing Laboratory, Inc., became an accredited laboratory on Feb. 4 by the American Association for Laboratory Accreditation (A2LA) for technical competence in the field of Geotechnical (Putting Green Materials) Testing. The A2LA is a non-profit, scientific, membership organization dedicated to the formal recognition of testing laboratories and related organizations which have achieved a demonstrated level of competence. Accreditation demonstrates ongoing competency by the lab in performing the required tests specified by the U.S. Golf Association (USGA) for Putting Green Construction Recommendations.

The USGA recommends that only A2LA accredited laboratories be used for testing and analyzing materials for building greens according to specific guidelines. The company's president and owner, Powell Gaines, served on the review panel and offered much technical expertise to the USGA in writing the 1993 revision of the USGA Green Construction Recommendations.

Focus on Michaud

Continued from previous page

information most of the winter. It would be nice to work 30 or 40 hours a week during the winter after working all those hours in the summertime, and have some time to myself.

"But I do enjoy the snowboard end of it. Those kids are so grateful for whatever you do for them. I swear I be nice to work 30 or 40 hours a week a year," he said. "Instead of grooming the hours in the summertime, and those hours in the winter. It would be nice to work 30 or 40 hours a week during the winter after working all those hours in the summertime, and have some time to myself.

Nevertheless, "the more you deliver, the more the guests expect the next year," he said. "Instead of grooming the pipe three days a week, now they want it groomed five days a week. Next year it may be every day."

"Basically each year the challenge now is to keep wow looming, keep dazzling them."

"We wrestle every year with that on the golf course," he added. "They expect a great-conditioned course, smooth cart paths and everything we've done so far."

The new "wow factor" this year, he expects, will be a GPS (Global Positioning System) on the golf carts.

Which of the two "careers" came first is hard to figure. Michaud earned a college degree in forestry, then found himself running heavy equipment. During the winters for many years, he worked as a groomer and became manager of the Sugarloaf USA grooming department.

When Jones and golf course builder Greenscape started to build Sugarloaf Golf Club, Michaud was on an earth-moving machine. Superintendent of construction Fred Downs liked Michaud's work ethic and hired him to help finish the golf course, installing the irrigation system, seeding and as a shaper.

When the work was done, Michaud stayed on to operate the complex irrigation system, and when superintendent George Howe left in 1989, Michaud was hired as head superintendent. He attended the University of Massachusetts' Winter School for Turfgrass Managers and dropped his management position in the grooming department, although continuing to work for it.

Still, the two jobs overlap.

"Last year we skied until June 1," he said, "and we had two weekends of 'Ski and Tee,' so imagine what kind of shape I would have been in running both those departments."

Which of the jobs does Michaud prefer?

"Both have good and bad points," he said. "The snowboarding job in the past was more relaxed and the expectations were less; but as I get more involved in national events and national championships, the pressure is on and the expectations are about the same as with golfers.

"The snow is not living. If it gets icy, you can push snow on top of it, groom out, and it's fixed. You don't have a soil profile and depending on you to feed and water it and give it medicine when it's sick."

Softspikes continues suit parade

ROCKVILLE, Md.—Softspikes, Inc., has filed separate lawsuits against four manufacturers of alternative golf cleats, claiming violations of intellectual properties against patents the company holds in Canada. The four manufacturers are Green Keeper, Flatspikes, Smart Spikes and Gripper Golf Cleats.

"These lawsuits are a continuation of an aggressive position the Softspikes, Inc., has taken, and will continue to take to vigorously protect our intellectual properties," said CEO Jon Hyman.

Softspikes has 12 issued patents in the United States, with 12 more patents pending. In addition to Canada, Softspikes has other patents issued in the United Kingdom, Japan and Australia.

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to soap stains down the back of your ball washers — thanks to a simple, yet ingenious, little change in the design of our Deluxe Model as shown here. Now, any excess liquid drains out of the washer and down the inside of the pipe stand.

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CIRCLE #112

April 1998 17
Veterinary sheds light on pesticide perceptions, realities

By MARK LESLIE

PROVIDENCE, R.I. — Addressing the question of whether risks to animals from pesticide applications is real or perceived, a Virginia toxicologist said he spends “most of my time convincing people that a ‘poisoning’ wasn’t a poisoning at all,” but some such cause as an infectious disease.

Nevertheless, Dr. Dennis Blodgett recommended to an audience of mostly lawn-care professionals that they take a number of measures to assure they do not harm birds, fish or other wildlife. While fungicides cause no problems and fertilizers are a concern primarily with fish, Blodgett said the herbicides 2,4-D, dicamba, MCPP, MCPA and Bensulide must be used carefully.

Listing birds, bees and fish as “more susceptible to pesticides than other species,” the associate professor at Virginia-Maryland Regional College of Veterinary Medicine said: “We need a non-application zone around fish ponds.”

He also suggested that pesticide applicators:
• Not irrigate pesticides to water-saturated ground.
• Not apply them before a heavy rain.
• Avoid application on windy days.
• Avoid puddling herbicides.
• Not apply pesticides if waterfowl or pets are in the area.
• Avoid spraying on puddles.
• Instruct clients to keep pets off the lawn until the chemical is dry.
• Empty and turn over feeding bowls, water dishes, etc.
• Use newer insecticides that are not organophosphates and are safer, in general, than LPs and carbamates.
• Beware using Ficam or Dursban where waterfowl could be affected.
• Beware using the pre-emergent herbicide Bensulide where there are young dogs, which have developed signs of SLUD (Salivation, Lacrimation, Urination, Diarrhea).

If a person claims a pesticide application harmed wildlife, Blodgett said that in order to determine whether the problem is real or perceived, the applicators should:
• Make sure any clinical signs of sickness are compatible with the pesticide used.
• Make sure the onset times of the symptoms match the time of application.
• Determine if they share the blame. For instance, he said, if a dog owner has used a flea collar, shampoo, or flea dip on a dog, the animal’s ingestion of a chemical might “put them over the top,

whereas your pesticide application alone wouldn’t cause any problems.”
• Have public relations literature explaining why problems are unlikely.

If people are convinced the pesticide application caused a problem, Blodgett recommended the applicator get “a real diagnosis from a veterinarian” — through blood or urine samples, or through brain samples and stomach contents if the dog is dead.

“Communicate with a veterinarian, whenever possible,” he added. “Volunteer to call the vet with information on what was in the spray and, especially, the concentration. Most veterinarian colleges have toxicologists on staff who are available for consultations.”

In Blodgett’s audience at the New England Turfgrass Conference here, half the people had been accused of poisoning pets, yet none thought the animal was poisoned.

“Some of the problems occur because of the innate habits of the animals,” Blodgett said. “Cats lick themselves, so anything that gets sprayed on them is going to end up in their stomachs. Once it’s in their stomach, it gets absorbed into their body a lot faster than if it were just going through their skin.

“Waterfowl consume grass as a large percentage of their diet.
Pesticide truth & fiction

Continued from previous page

so an insecticide sprayed on a
lawn will be ingested in a larger
amount by them than dogs or
cats. "Dogs" indiscriminate appe-
tites get them into trouble."

Listing the SLUD symptoms,
Blodgett said certain pesticides
can also cause seizures, respira-
tory distress, muscle tremors
and pinpoint pupils from contact.
"We need those clinical signs
to believe an insecticide was in-
volved (in a sickness)," he said.
"But we also need a pretty quick
onset time — oral ingestion
within a couple of hours, inter-
nal ingestion within 24 hours or
so."

Insecticide problems are rare
in cats and dogs, but are ob-
served in waterfowl because of
their diet, Blodgett said.
"Spraying for sod webworms
can cause a problem with song-
birds, which can eat granules or
even the sod webworms as they
come out of the ground to die, he
said.
"We have some problems with
cats and Dursban and Lorsban
(chlorpyrifos)," Blodgett said.
"We don't get SLUD signs... You
get a sick cat that doesn't want to
move around or eat. It has a de-
layed onset of three to seven days
after application."

He said Diazinon is behind
most calls he gets concerning
waterfowl, so it's been taken off
golf courses. "It only takes two
granules to kill a songbird," he
added. "So 5-percent Diazinon is
the highest concentration that
can be safely used on lawns if
you have waterfowl in the area,
or birds of most any type. Two
pounds per acre can kill birds."

Ficam and Dursban also are
implicated with waterfowl cases,
he said.

Concerning 2,4-D, he said high
doses cause paralysis in dogs,
while lower, but still toxic,
amounts can cause vomiting and
diarrhea.

The lethal dose of 50 milli-
grams per pound of body weight
categorizes 2,4-D as toxic, but
the application rate of one pound
per acre only produces a con-
centration in grass of 150 parts
per million.
"That is the same as 150 mil-
ligrams for every two pounds of
grass," Blodgett said, "and since
a dog will, at most, eat only one
cup full, that is way less than will
poison him."

He said the old fear that 2,4-D
is a cancer concern for dogs has
been disproved.

Citing fish being highly sus-
cceptible to most pesticides —
organophosphates, carbamates
and even parasitides, Blodgett
said,"Some of the herbicides are
pretty toxic to fish, particularly
Prowl or Pendimethalin."

He added that fish are also
susceptible to fertilizers and the
ammonia in fertilizer, and noted
that urea breaks down into am-
monia.

Super: Nemacur
not 'misapplied'

HOLLYWOOD, Fla. —
The Nemacur "misapplica-
tion," which lead to Florida
officials drastically reduc-
ing the use of the remedy
for nematode, was not a
misapplication at all, ac-
cording to William Peace.

Peace, superintendent
at The Club at Emerald
Hills here who was assis-
tant superintendent at the
time of the incident in
1994, said the application
was done
by the book.

Responding to an article
in the GCN March edition,
Peace said: "We had an
outside contractor come in
to put out the Nemacur.
Everything was done by the
label. There was nothing on
the radar indicating rain,
and no prediction of rain."

But, 3 inches of rain fell
during the night and some of
the Nemacur was
washed into the abutting
Intercoastal Waterway,
causing a major fish kill.

Peace said that after the
state's investigation, the
club was never fined and it
split the cleanup cost with
the contractor.

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Conserve. The end of the line for insect pests.
Acidity tests

Continued from page 15 such as phosphorus in particular are there but unavailable.

"Simply by liming a low-pH soil, phosphorus becomes available," Hummel added that microbial activity is also increased simply by adding lime.

"When you have a pH of 5.2," he said, "microbiological activity is slow and you get a little thatch. Simply liming it, and bringing the pH up into the mid-fives, you increase the microbiological activity and, as a result, you are able to keep up with the organic accumulation so you get thatch decomposition. It demonstrates pretty clearly the importance of thatch on water movement into the soil."

Hummel suggested golf course and lawn-care managers purchase their own soil pH meters. "We found that the inexpensive ($50 or so) meters are actually pretty accurate," he said, recommending that the meter should have automatic temperature correction and a reference electrode. A kit to calibrate the meter should also be bought, he said.

Determining pH is simple, Hummel said. "Put a soil sample in a cup, add water, let it sit a half hour and take the reading."

He listed liming guidelines:
- Apply in the fall or spring.
- Coordinate the application with core cultivation if possible, "because lime neutralizes acidity where it is at. It does not move down into the soil. So anything you can do to get it down deeper, the better off you will be."
- Use a maximum of 50 pounds per 1,000 square feet on established turf.
- If you have high pH soils, add elemental sulfur applications to lower the pH to slightly acidic.

While nitrogen is so dynamic in the soil that it is rarely tested for, Hummel did recommend "management factors" for phosphorus and potassium.

Phosphorus, he said, "is essential in establishment. And if you are in newly established field, a soil test is valuable to determine phosphorus levels."

"Established turf is unaffected by additional phosphorus because it has a very fibrous root system and obtains whatever phosphorus is there. Phosphorus is very im mobile in soils. Its availability is very closely tied to pH."

Potassium content in turf, he said, is about half that of nitrogen.

Saying that secondary nutrients — calcium and magnesium — are important, Hummel added, "But in most native soils we rarely run into deficiencies."

Referring to the Cation Exchange Capacity (CEC), which defines the soil's ability to hold nutrients, Hummel said: "Sand and silt have little CEC. Most CEC in a soil is in clay or organic matter. So, add organic matter to a soil and it improves CEC."

Soil reports also divulge "percent base saturation," the ratio of basic cations in the soil — calcium, magnesium and potassium.

The recommended percentages of basic cations in soil, he said, are: potassium, 2-7 percent; calcium, 65-85 percent; magnesium, 10-20 percent; and hydrogen, 0-5 percent, when present.

He listed as calcium sources: calcitic limestone, 32 percent; dolomite limestone 22 percent; gypsum 19-23 percent; superphosphal fertilizers 12-21 percent; and natural organic fertilizers, like bone meal and some poultry manure products.

He recommended magnesium oxide as the best source for magnesium. "It's 33 percent magnesium and is a granular form that is easy to apply," he said, adding that other sources are dolomite lime, 12 percent; potassium magnesium sulfate, 11 percent; and magnesium sulfate, 9 percent.

"A soil test is only as good as you send in," Hummel said. "First, identify the different soil and turf areas. Then, collect a representative sample from each area. Use 10 to 20 subsamples using the top 2 inches of soil, excluding thatch. The depth of the sample should reflect the depth of rooting."

"Soil testing, though a widely used tool, can be misused or better used," he said, asking people to maximize their soil test programs by deciding on a reputable lab and staying with it; keeping accurate records; sampling to the same depth each time; and sampling at the same time of year.

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Plus, since temperature is the key, the GoldCote release rate is virtually constant for all levels of soil moisture, soil pH and microbial activity.

Here’s how GoldCote works.
As the soil temperature increases, water vapor from the soil passes through the multiple coatings. The resulting condensation and pressure within the fertilizer granule causes a precise and predictable release of nutrients.

In fact, as this chart shows, nutrient release from Terra fertilizers with GoldCote can be accurately predicted based on temperature. That means you’ll get the performance you expect – when you expect it. You can count on it.

GoldCote Release Rates
% Released/Days/Soil Temperature

![Graph showing GoldCote Release Rates](chart.png)
Consistent, Superior Nutrition

You know exactly what you want and what your course needs. From urea to monoammonium phosphate (MAP) to potassium nitrate, there's a Terra controlled-release fertilizer with GoldCote that will meet your demands.

And if you demand the best, Terra's potassium nitrate fertilizer with GoldCote is what you want. It provides a balance of potassium and nitrate nitrogen for good blade and root growth. Terra's potassium nitrate fertilizer with GoldCote:

- improves turf quality and color;
- promotes steady, consistent growth;
- eliminates growth spurts and fluctuations;
- minimizes waste and potential pollution caused by leaching and volatilization, and
- reduces the salinity and potential burn common with the use of many fertilizers.

One thing is as certain as you seeing the sun rise each morning -- all Terra GoldCote fertilizers have been formulated with the highest quality nutrients and developed to deliver the results you want.

Fewer Applications

You know better than anyone that there's never enough time -- or manpower -- to do everything that you need to do. Terra GoldCote reduces the amount of application time your people have to spend compared to conventional fertilizers. Plus, consistent nutrition means consistent growth. There are no growth spurts. No fluctuations. And, as a result, no extra mowings. You can use your people where you really need them.

Talk to Terra about the entire line of fertilizers with GoldCote. You’ll get predictable release and superior results with fewer applications.

You can count on it.
There's a Terra fertilizer that's right for your course.

There's a Terra fertilizer that can help you grow healthy, green turf with a strong root system. Turf that's healthy and better able to fight disease, pests and everyday wear and tear.

At Terra you'll find a complete line of professional fertilizers with virtually everything that you need - including primary, secondary, micronutrient and pesticide packages. Plus, Terra's GoldCote technology now delivers consistent, high-quality nutrition with a predictable, controlled-release rate. Your turf gets the nutrients it needs ... when it needs them.

Plus, you can count on Terra for the support, service, assistance and expertise it takes to select and use the fertilizer that's right for your needs ... right for your course.

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Sioux City, Iowa 51102-6000
1-800-288-7353
www.terraindustries.com

Working with you.
New technology

Continued from page 15

degrees, depending on location, from the longest day to the short-
est. And its angles change over
the course of a
Continued from page 15

day and the year. So, when we ask which trees
should be removed, the answer is
different for different times of the
year," he said. "If you do a sun-
light assessment on just one day
of the year, you will make a seri-
ous mistake, cutting the wrong
trees entirely, or not cutting
even one tree..."

"You can use it in a couple of
ways," Oatis said. "First, it virtu-
ally guarantees that the system
you're putting in will provide
good coverage. And spending a
few hundred dollars to ensure
that the $500,000 irrigation sys-
tem will work, is cheap insurance.
"Second, if you have an existing
system, it is a great tool for trouble-
shooting. In the past, when you
saw a coverage problem the only
way to treat a dry spot was hand-
syringing, or to go through a pe-
riod of trial and error with differ-
ent heads, nozzles or pressures to
correct the problem. With this
program, you can do it very effec-
tively in the laboratory."

Testing seed purity, Oatis said,
is another cost-saving investment.
Spending $200 to a laboratory's
test seed in 50-gram samples, as
opposed to 2-1/2-gram samples,
can prevent many problems with
weeds, he said. He cited a study
in which 90 seed samples were tested
at the 2-1/2-gram rate and 94 per-
cent were shown as clean. Yet a
50-gram sample showed that 45
percent of the samples contained
Poa Annua and Poa Trivialis.

Irrigation coverage analysis is
important because "if you don't
have sprinkler heads that will
apply water evenly, the best con-
trol system in the world is not
worth a dime," Oatis said.

Saying that some of the sprink-
lers on the market today do not
apply water accurately, he encour-
age superintendents to use the
SPACE (Sprinkler Profile and
Coverage Evaluation) software
program developed by the Uni-
versity of Southern California.
SPACE previews how a specific
head, nozzle and spacing combi-
nation will work, both through a
picture and numerically.

"You map the green and trees
and run a shade-assessment pro-
gram which shows how much light
different areas of the green get..."

"It can rate which indi-
vidual trees have the biggest im-
 pact on shade. The program also
calculates the amount of light you
will gain after doing the tree work.
It identifies trees, or even
branches which are causing prob-
lems and quantifies how much
you'll gain by doing the work."

He said Thornhill (Ontario)
Country Club superintendent
Keith Bartlett, who has used the
program very successfully,
claimed this technology "saves
money — as many trees as it eliminates
because it eliminates unneces-
sary removals."

After completing this program,
superintendents could use the
digital imaging program to sell
membership on a renovation
project. This technology creates a
visual representation of proposed
work. The computer operator can
digitize images to show
whatever changes they propose.
"There are as many possibili-
ties as you can think of for this
technology," Oatis said. "You can
add or remove trees or features,
mounding, bunkering, landscap-
ing around the clubhouse. Your
only limit is your imagination."

Using this technology re-
quires a "pretty fast computer
with mid-sized memory, a simple
software program like MG1
Photo Survey; and you have to
generate a digital camera, or hav-
ing photographs or slides
scanned. Digitized photos cost
$1.50 apiece, and scanners sell
for as little as $300, Oatis said.

Meanwhile, Oatis also recom-
mended that superintendents
investigate using:

• Irrigation coverage analysis
  "an excellent technology that
is not being used enough";
• seed purity testing;
• pest forecasting devices,
  "which will become more valu-
S
HARON CENTER, Ohio —
Research and subsequent
answers to turfgrass prob-
lems are not always resolved by
universities. A great example of
By TERRY BUCHEN
tackling database net-
working information was D.
Frank Dobie, general manager
and superintendent at The
Sharon Golf Club here. Dobie
wrote an article in September
1996 in Northern Ohio Turfgrass
News about using a combination
of Subdue 2E, wetting agent and
spreader sticker, and the data-
base was formed soon thereaf-

ter when many superintendents
expressed interest in doing
further experimentation.
“The most effective method
and material in terms of moss
kill and safety to Poa annua and
bentgrass was Dawn dish-wash-
ing detergent,” said Dobie. Four
ounces of Ultra Dawn were
mixed in 1 gallon of water. The
solution was spot-sprayed with a
backpack or hand sprayer, thor-
oughly soaking each spot of
moss. The best results were
achieved when air temperatures
were between 55 and 80 degrees
on days with full sunlight.
The moss turned an orange-
brown within 24 hours, with no
injury to the surrounding turf.

Dobie re-
ported.

“We know
that moss
starts from
spores. So, it is important to at-
tack the moss plant before the
moss flowers in order to inter-
rupt this part of the life cycle,”
Dobie said. “We believe the
Dawn dehydrates the moss plant,
resulting in its death.”

“We do not know how long the
spores will continue to germi-

nate, so clean-up treatments may
be necessary for several years,”
he added. “We also do not know
what conditions, cultural practices
and discontinued pesticides may
have allowed moss to become a
problem in recent years. These
are questions that could be an-
swered by university testing.”

Michael Hambach, superin-
tendent at Stoneleigh Golf &
Country Club in Winchester, Va.,
suggested using Dawn to Stanley
Zontek, director of the USGA
Green Section’s Mid-Atlantic
Region. Keith Happ, USGA
agronomist who shares an office
with Zontek, further researched
the chemistry of Dawn and found
that it contains cryptocide, which
controls spores. That is most
likely the reason for the formula
for success. Cryptocide desic-
cates the moss and also kills the
spores, which keeps the moss
from reoccurring, Dobie said.

“Eighteen superintendents
from eight states participated,
and we discovered many inter-
esting things as a group,” he said.
“Moss occurred under a wide
variety of conditions. It did not
matter if the greens were USGA-
spec or soil greens. The grass
types varied from Poa annua to
Penncross, Pennlinks, South
German, Washington, A4 and
G2. The very dense turf of the
G2 was not a deterrent. Heights
of cut were from 1/8 to 5/32
inch. Thatch thicknesses were
from 1/16 to 3/4 inch. pH’s ranged from 6.0 to 8.0. Most
greens had good drainage. But
if the thatch was kept moist, moss
seemed to be more prevalent.
All had moss in full sun.”

He added that annual nitrogen
feedings ranged from 2 pounds
to 7 pounds per thou-
sand square feet. Years that moss
was first seen were from 1985 to
1996. Years that greens were
constructed varied from 1919 to
1993. Sources of top dressing
were from eight suppliers. Some
top dressing had peat and some
was straight sand, he said.

Several superintendents re-
ported that mercury-based fungi-
cides had no effect on the moss or
the spores. Most consider treat-
ments with iron sulfate and/or
ammonium sulfate to be ineffec-
tive. DeMoss killed moss but was
too damaging to the surrounding
turf, Dobie said. If only one green

Continued on next page
Cal Poly Pomona plans 'living lab' course

Continued from page 15

The conceptual development plan, which was approved by the Cal Poly Pomona Campus Planning Committee. The plan deals with the various aspects of the project, including feasibility, financial analysis, environmental resource analysis, design, alternatives, cost estimates and implementation strategy.

The facility will encompass a 340-acre parcel that sits on a hill offering views of the valley and surrounding mountains. Two hundred acres are impacted by the landfill and the remaining acreage was severely affected by grazing and agricultural use. The original concept was to build a nine-hole course over the closed landfill. New plans are to blend 18 holes through the entire site, offering the opportunity to revetulate the property with natural plant materials and encourage the return of wildlife to the area.

The landfill itself is due for closure in July 1999. The Sanitary Districts will be responsible for capping the landfill with 3 feet of clay and monitoring the site for leachate and methane releases for the next 30 years in accordance with EPA regulations. The landfill already produced an ample supply of methane gas that is collected and converted into electricity. All of the landfill's energy needs are generated on site and the excess power is sold to the SoCal Edison power grid.

"The operation of a self-sustaining site such as this is a very positive approach to dealing with waste," Barnes said. "The methane that will be generated by the landfill, even after closure, will be collected and used in an even more efficient manner for the operation of the golf course and its facilities."

Golf course architect Cal Olsen will assist in the course design. One of Olsen's recent projects, Coyote Hills Golf Course, reclaimed an oil-production site operated by Unical Petroleum.

The hope is to begin

Beating moss

Continued from previous page

had moss, it was spread to other greens within a few years, probably by mowing equipment. All superintendents considered moss a serious problem. All who used the Dawn treatment in 1997 considered it the best method of control.

"We will continue to correspond with the 'Moss Men' in search of some more answers," Dobie said.

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Seed supplied by L.L. Olds Seed Co.

Seed supplied by Professional Turf Center

Providence is Still Number 1.

Leading superintendents rate Providence the best creeping bentgrass for the northern U.S. and Canada.

“We chose Providence for its outstanding performance all over the U.S. and particularly in the Northeast. We established greens in the hot, dry summer of '95 and they have performed beautifully. Our new practice putting green was open for play eight weeks after seeding. My membership is very pleased with the quality of our putting surfaces.”

Bob Miller — The Golf Club of Purchase • Purchase, NY

"Providence has performed as expected; with its upright growth characteristics, fine leaf texture, uniform density and color, it has truly been a winner for us. Since the day we opened, our customers have loved the consistency and smoothness of our putting surfaces.”

Pat Shaw — The Bog • Saukville, WI

"This is my fifth grow in and my first with pure Providence greens. It's a very fine, upright turf. Slightly slower to establish because of our cold and rainy fall, but now that we are maturing it's showing its true colors to be a great putting surface.”

Gregg Radak — The Reserve Vineyards and Golf Club • Aloha, OR
Crosswater GC restores river

The Little Deschutes River has undergone a restoration program at Crosswater Golf Course to stabilize its banks and create fish habitats and spawning areas. Crosswater's interest is to protect nature's valuable assets, while at the same time, enhance their natural habitats. Working closely with the Oregon Department of Fish and Wildlife and InterFluva, a fisheries, hydrology and resource management enhancement company, Crosswater superintendent Jim Ramey oversaw the restoration.

"We are very serious about the respect-
ful treatment of the rivers for which
Crosswater is named," said Ramey. "This
program is good for the river and we are
exercising the utmost care and caution
during this restoration process."

Following a thorough evaluation of the
Little Deschutes River banks, flow pat-
tterns and erosion levels, different treat-
ments were designed for seven sections
of the river based on need. Restoration
involved the banks or the creation of habi-
tat areas for wildlife.

Banks were stabilized by adding rock
at the toe, reconstructing the slope, lay-
ing a biodegradable fabric and then sod.
The organic, geotextile fabric holds the
vegetation in place until roots are re-es-
tablished and protects vegetation from
river flow fluctuations. Willow stakes now
anchor the fabric layer in place until ma-
ture willows and native plant roots pro-
vide permanent soil stabilization.

Two types of habitat restoration were
also employed at designated parts of the
river. Riffles, using various sized rocks,
were created where solid clay soil beds
dried, thereby establishing protective
spawning areas for fish. Along other sec-
tions of the Little Deschutes, trees with
large trunks were be placed at angles
cross the flow to create fish habitat and
feeding environments within their
branches. This process will not block the
natural river flow.

Arlyn Davis Construction Co. of Lake
Oswego did the restoration work, with
oversight from Ramey and Ted Wise of
the Oregon Department of Fish and Wild-
life and the Army Corps of Engineers.

La Cantera GC
Texas' 3rd course to be certified

SAN ANTONIO — La Cantera Golf Club
has become the third golf course in Texas
—and the 125th in the world — to earn
designation as a Certified Audubon Co-
operative Sanctuary by the Audubon Co-
operative Sanctuary System (ACSS).

The golf club in 1994 joined the ACSS,
the educational division of Audubon In-
ternational which provides golf courses
with information and guidance that help
them preserve and enhance wildlife habi-
tat and protect natural resources.

Bill Bedford, La Cantera's director of
agronomy and golf course superinten-
dent, said the certification had long been
a goal for the club, which he described as
"a great environment for wildlife and golf-
ers to coexist."

Cindy Bradley, environmental educa-
tor for ACSS, said, "La Cantera Golf Club
has shown a strong commitment to its
environmental program. They are to be
commended for their efforts to provide a
sanctuary for wildlife on the golf course
property.

La Cantera's efforts are rewarded with
the presence of a variety of native animals
including black squirrel, coyote, white
tail deer, dove, quail, chaparral (roadrun-
ners), hummingbirds and a flock of "about
30 turkeys with chicks," Bedford said.

To keep the environment friendly for
wildlife, La Cantera uses organic fertiliz-
ers whenever possible. In addition, the
La Cantera agronomy staff grows mi-
Crobes that feed on fungi in order to elimi-
nate fungicide use.

As part of its water conservation pro-
gram, La Cantera uses a computerized
irrigation system with an on-site weather
station. The equipment allows the staff to
calculate the plants' evapotranspiration
rate, so they know exactly how much
moisture needs to be replenished.

Still another component in La Cantera's
water-efficiency program is use of
xeriscape plants like verbena, lantana,
butterfly bush, salvia and coreopsis, which
are attractive to birds and butterflies and
less demanding of water resources.

In certain areas, Bedford said, his staff
planted maize for turkeys and deer. Bird
houses made for native bluebirds by stu-
dents at Corbett Junior High School in
Schertz also are placed in strategic loca-
tions.

Bedford, who is developing plans to work
with educators on creating butterfly gar-

Continued on next page
Policy-making a politician maneuver

Continued from page 15

brief look at who really makes policies and how they affect us. Although in this space we can't examine the detailed process of forming governmental policy, we can identify the basic ingredients and major actors in the policy-forming process.

Basically, policies are formed by people for people. There is really no such thing as "environmental policy." There is only "people policy."

The effect of any specific environmental policy is important mainly because of its effect on people. Policy decisions are rarely neutral. Usually somebody gains and somebody loses. In some cases everyone might gain, or everyone might lose as the result of a particular policy decision.

"Politics" is the process of forming governmental policy. All the activities we commonly associate with the term "politics" are carried on with the prime goal of influencing governmental policy. Campaigns and elections, for example, are mainly preliminaries to pick the players for the "policy game." "Governmental policy" is an enforceable decision or set of decisions that determines who gets what, when and how, and who pays for it.

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Aspetuck certified

Continued from previous page

dents at area elementary schools, said the golf club's education and outreach program gives him and his assistants an opportunity to spend time with children of all ages. He wants them to see both kinds of "birdies" on the golf course—both the kind that signal a great shot and the ones that rely on the land for their very existence.

La Cantera certified

Continued from previous page

golf courses. On the other hand, forming policies for golf courses — setting standards for designing, building and maintaining them — can effectively be set by those who love the game of golf, but only if they take the initiative to establish and into action policies that are beneficial to both golf and the environment.
MECHANICS CORNER

EETC schedules conference speakers

MENOMONEE FALLS, Wis. — The second annual meeting of the Equipment and Engine Training Council will be held Monday, May 4, at 1 p.m. at the Briggs & Stratton Distribution Center here. The annual OPE Technician Certification Test Committee meeting will be held on Tuesday, May 5, at the same location.

Speakers include John Rainone, vice president of service for MTD, and Curt Larson, vice president of distribution, sales and service for Briggs & Stratton. They will share their views on the state of technician competency and service in the industry, as well as vocational school programs. Other prominent industry and vocational education leaders are expected to be announced.

The task force committee created at last year’s EETC meeting in Dallas, has completed its work on a plan for OPE program certification for vocational schools. Composed of vocational school administrators and instructors, as well as dealers, distributors, and manufacturers from the industry, the committee will present its final vocational school certification document to the EETC members at this meeting for approval.

For those arriving early, tours are planned to include highlights of Milwaukee and Kohler on Sunday, May 3. Monday morning, May 4, tours of the Miller Brewing and Harley Davidson plants are scheduled.

All interested OPE dealers and distributors, as well as OEM equipment and engine manufacturers, and vocational school administrators and instructors are encouraged to attend this important meeting.

More information is available from the EETC at 1946 South IH-35, Suite 100-A, Austin, Texas 78704-3693.

Small Engine School a ‘Texas Model’

HOUSTON—Briggs & Stratton has sponsored a Small Engine School for WSD Small Engine Repair teachers. Eleven WSD Small Engine Repair teachers attended the three-day school at Engine Warehouse here. Bruce Radcliff, national training director for Briggs & Stratton, was assisted in the training by Andy Caldwell of Engine Warehouse and Albert Herron, service manager for Texas Outdoor Power Equipment in Georgetown.

Bruce Radcliff of Briggs & Stratton and Virgil Russell, executive director of the Equipment & Engine Training Council (EETC), are looking at WSD as the “Texas model” for meeting the demand for trained and certified technicians in the outdoor power equipment industry. It has three components:

- Teachers are trained to industry standards
- Students are trained to industry standards
- Students receive industry-endorsed credentials/certificates.

Radcliff estimates that nationwide, there is an immediate need for more than 30,000 trained technicians. As technology advances, and with the new EPA regulations, the need will be even greater for people who are adequately trained. Briggs & Stratton and other manufacturers are looking to

Continued on next page
SUNY Delhi session attracts Northeastern mechanics

DELHI, N.Y. — A group of 30 turf mechanics from across the Northeast recently enhanced their skills through a special seminar series offered at the State University of New York College of Technology at Delhi.

The four-day seminar, “Turf Equipment Mechanics Advanced Training School,” was the latest in a series of hands-on training programs offered at the college.

It was sponsored by Delhi College, in cooperation with the Golf Course Mechanics Association and the New York State Turfgrass Association.


“They fill an important need for specialized training in the industry,” said Steven Tait, assistant professor of turf equipment management.

Instructors focused on two areas: welding and troubleshooting electrical systems. Gerald Scheck, assistant professor at Delhi, led sessions in specialized welding techniques for light-gauge metal parts commonly found on turf equipment.

Paul Zellner, area service manager of the Jacobsen Division of Textron, taught troubleshooting turf equipment electrical systems.

Tests were conducted on equipment donated by S.V. Moffit Equipment Inc. of West Henrietta, N.Y.

“Participants were very enthusiastic about what they learned,” continued Professor Tait.

“Normally when they’re working in the field and something breaks, they’ll just fix it the best they know how. Now we have given them the proper solutions.”

Engine school

Continued from previous page

WSD to provide the training and help meet the demand for technicians in Texas. Radcliff said that other prison systems have shown an interest in the Texas model, “but we want to make sure we know how to make it work in Texas before attempting to duplicate it in other states.”

Besides providing the training to the WSD teachers at no cost, Briggs & Stratton has donated new engines and equipment to the Small Engine Repair classes.

Radcliff said he hopes the program proves successful in terms of training students in industry standards to meet the needs of employers. He said he hopes the partnership between Briggs & Stratton will be long-term and beneficial to all.

PLCAA tabs Delaney

The board of the Professional Lawn Care Association of America (PLCAA) has hired Acting Executive Vice President and Government Affairs Director Tom Delaney to fill the position of executive vice president.

Since former Executive Vice President Ann McClure left the position a year ago, Delaney has managed the association in an acting capacity. He has testified before the U.S. Senate and House Subcommittee lawn care and FIFRA hearings.

He works closely with government and industry leaders and organizations, and the media on a range of issues affecting the industry and our businesses. For the nine years that he has been with the association, he has helped earn PLCAA the reputation as the “voice of the industry,” the board said.

“I must add that Tom does not act alone,” said PLCAA President Larry Messina. “We have a strong staff, dedicated volunteer leaders — it is a team effort. Karen Weber, our communications director, works closely with Tom and has been assisting him in his management role this past year and she will continue to do so.”

The board also agreed to retain Bob Andrews, owner of The Greenskeeper in Carmel, Ind., as an independent consultant to assist with member services. He is a past president of PLCAA.
The ever-expanding job description for golf course superintendents now includes employee safety and compliance in the workplace. So detailed and technical is this task that safety committees are meeting regularly — making this effort more efficient and lowering insurance premiums.

The following checklist features some of the more salient points accomplished in day-to-day operations all types of courses:

**SAFETY & COMPLIANCE ISSUES**
- Right-to-know stations/employees sign-off that they have received proper training
- MSDA sheets — pesticides- fertilizers-all other chemicals/compounds. register all pesticide with local fire department
- Hazardous Communication (Haz Com) Program
- Lock out/tag out program
- OSHA 200 Form — display as equired
- CPR training & certification
- CPR instruction poster
- Emergency telephone number poster
- Safety training videos/notebooks
- Wetlands/Army Corp of Engineers
- Federal minimum wage & work laws — bilingual
- State minimum wage & work laws — bilingual
- Local minimum wage & work laws — bilingual
- OSHA evacuation plan
- Pesticide licenses
- Pesticide usage records
- Fertilizer usage records
- Burn permits
- Used oil/fluids permit
- Fuel storage/spill containment/fire extinguishers/emergency shut-off switch/safety signs bilingual/properly vented
- Pesticide storage — 24-hour/day exhaust fan-spill containment-no floor drain-safety shelving-explosion proof light-sprinkler system-heated/air-conditioned tanks to reuse water-fire extinguisher
- Fertilizer storage — 24-hour/day exhaust fan-spill containment-no floor drain-safety shelving-explosion proof light-sprinkler system-heated/air-conditioned fire extinguisher
- Safety shower/eye-wash station
- Wash rack-rinse aid to reuse water-oil separator
- Irrigation pumphouse/first-aid kit-fire extinguisher/electrical/bilingual piping proper signage/heat/air-conditioned
- Fire extinguishers — inspected monthly with signature on inspection tag
- First-aid kits
- Eye-wash bottles
- Disposable ear plugs
- Portable oxygen bottles
- Goggles
- Glasses
- Face shields
- Paint masks
- Head protection
- Spray technicians/respirators, with spare cartridges/rubber gloves/rubber boots/pesticide apron/spray suits/goggles/safety glasses
- Safety bingo
- Bilingual safety signs
- Safety floor marking
- Safety electrical & piping sign markings bilingual
- Sign indicating "days without an accident" bilingual
- Handicap parking spaces & signs
- Insurance company safety audit
- Worker's compensation safety compliance voluntary inspection; and
- Employee suggestion box.

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Safety Bingo game can save club big money

By TERRY BUCHEN

LAGUNA NIGUEL, Calif. — One of the largest expense items in a golf course operation is worker's-compensation insurance premiums. El Niguel Country Club's worker's-compensation insurance premiums were draining $120,000 from the budget each year and course officials felt they had to reduce the number of accidents, provide a safer work environment for their employees and save the course money in the process. More intense safety programs were carried out in each department, with good results, but course officials felt a better job still could be done. Their answer? A unique and fun way for employees to really think and practice safety in the workplace.

"We started a Safety Bingo program many years ago," said General Manager Mike Mooney. "Employees from all departments play, drawing five numbers at 2:30 p.m. each Friday. The club puts $50 in the Safety Bingo pot and adds $5 per week until one of our employees wins."

He said there is usually never more than $70 to $100 in the pot before someone wins.

Mooney budgets $1,200 for Safety Bingo every year. Not a bad investment, he said, since in the first year alone we saved the club $49,000 in worker's-compensation insurance premiums. "Besides the cost savings to the club," he said, "we really have a great spirit with our employees, to really provide a safer workplace because no one wants to get hurt on the job, but especially now with the added incentive to win cash in our Safety Bingo contests."

He explained that if an employee gets hurt on the job where a worker's-compensation claim must be filed, the club does not have Safety Bingo for one week. A notice is posted in each department stating that if there are no further accidents or safety violations, Safety Bingo will resume the next Friday.

"We use three different colored Bingo cards that are rotated and each employee's full name, employee number and pay period is printed onto an adhesive label and attached to the current week's Bingo card," Mooney said. "Our insurance company issues an 'Experience Modification' percentage, the lower the percentage number, the safer and better the workplace is for employees, which is averaged over the past three years."

If a golf course is in the 120-percent or higher "experience mod" category, a representative from Occupational Safety and Health Administration automatically visits the property and performs a safety audit. El Niguel's best "experience mod" percentage has been 69 percent, "which is good," Mooney added. "If an employee gets hurt on the job and fills out an insurance claim, they are still eligible to play the following week when Safety Bingo resumes," said Alan R. Andreasen, former superintendent at El Niguel. "There is a noticeable amount of peer pressure by the club employees as they police each other by looking for safety items that need attention, for better safety in the workplace so the Bingo game is not canceled for one week."

"This safety program has probably eliminated a few frivolous claims as employees, for example, with a pulled muscle might go home and see if it hurts tomorrow after notifying their supervisor," he added. "Any other questionable injuries were sometimes not reported because of the Bingo game, but not a large amount."

Andreasen said Mooney and some of the department heads do not play Safety Bingo so the other employees would have a better chance to win the pot, sometimes even giving an employee their card so they could play two cards and have better odds of winning. Sometimes employees in some departments are also rewarded with an additional Bingo card if they did an outstanding job.

"With a sign that lists how many days have passed without a time/loss accident, we further encouraged safety and for employees to think safety," Andreasen added.
Ice Storm of the Century cracks the back of Maine woods & fairways

By MARK LESLIE

AUGUSTA, Maine — "War zone" was the operative description of Maine's landscape after "The Ice Storm of 1998." The January disaster was actually The Ice Storm of the Century, leaving golf courses as well as homeowners reeling from the damage. Never before in recorded annals had Mainers been under such an attack of nature as rain froze sometimes an inch thick on trees, causing even the thickest of them to snap like toothpicks.

It was as if an angry Paul Bunyan had taken a scythe and cut off the tops of trees in a swath across the state.

Electrical power was out for more than two weeks in some places, and in the aftermath people were left to clean up.

"I got crushed. The trees are destroyed," said superintendent Steve Hoisington of Martindale Country Club in Auburn.

"It looks like a jetliner or helicopter came down and took the top of the trees right off," said superintendent Tony Plant at Augusta Country Club.

"We had more tree damage this year than in the last 20 years combined," said owner and superintendent Joe Golden of Springbrook Golf Club in Leeds. "Of the course it looks like a war zone. The tops of all the tree are gone. They are sheared off."

In the wake of the storm, superintendents opened their checking accounts to purchase wood chippers and extra chain saws and to hire crews long before they normally would.

"We're expecting it will cost us between $10,000 and $15,000 just in extra labor," said Plant. "As soon as the storm hit, we hired eight guys who normally work for us in the summer, so we have a 12-man crew working on cleanup."

Superintendent Jim Hodge at the municipal Val Halla Golf & Recreation in Cumberland said cleanup will cost $20,000, but FEMA (Federal Emergency Management Agency) and the state will pay $18,000. FEMA pays based on cubic yards of material that must be removed, so Hodge needed to do a hole-by-hole estimate of trees and limbs that had to be removed.

Golden, who hired three extra employees, estimated his storm cost at $7,000 to $8,000. He and Hoisington both bought chippers, while Plant rented one, and all three had to buy extra chain saws.

The major tasks facing the golf courses remain cleaning up the many tree tops and tree limbs littering their fairways, roughs and out-of-play areas; deciding which trees to leave standing and which to cut down; removing trees and hanging branches that pose a safety threat; and determining what kind of trees to plant as replacements, if any.

"The worst disaster I've ever seen was from an ice storm we had here in 1994," said Dr. R. Jay Stipes of Virginia Tech in Blacksburg, Va., a professor and author who is dubbed The Tree Doctor of Virginia. "The big factor is trees that are safety hazards. I've worked on litigation cases where trees fell on people. And the general legal standard is, if a property owner or someone supervising trees on a property knows about trees that might be hazardous or wind-thrown, they are liable if they do not report it or take action. The superintendent or arborist needs to report the situation and the management decides whether to take it down."

"They call me Dr. Kevorkian down here for that reason," Hoisington confirmed this concern. "We have a lot of broken branches that are still up in the trees, and it is a safety factor," he said. "We'll have to hire a tree company to remove those."

The Ice-laden limbs and entire trees crashed to the ground on the fairways of Springbrook Golf Club in Leeds, Maine.

"The fungi move in and establish rot columns. Breakage is very, very bad. In fact, that kind of breakage is the worst that happens to forest trees."

"In those cases it's better to take the tree down. They will ultimately become hazardous and very likely could be wind-thrown trees."

Trees with "V crotches" are less likely to survive than those with "U crotches," which have more mechanical strength to hold up weight, Stipes added.

Skorulski recommended that where crews have done "a lot of rough work," superintendents should inspect "any trees that are worth saving and check the pruning cuts to ensure they've been done correctly. It's not a flush cut but a close one. If you have an excess of stub, the tree won't be able to callous off the wound and decay fungi can get in."

Hoisington expects cleanup to take three or four years. He anticipates that many of the trees he leaves untouched this year will fail to survive in the future.

To hasten recovery, Skorulski suggested superintendents "give them a shot of nitrogen in the early spring."

"Not a lot," he said, "Two pounds per 1,000 square feet is more than enough. Broadcast it under the trees, or root-feed it. All you want to do is make the tree vigorous this year. You want flush leaf growth and to start recovery."

He also said wound compounds — like the long-time asphalt-based paints generally do not speed up recovery.

When deciding to replace destroyed...
A RIVER RUNS THROUGH IT...

When 25 inches of rain fell on a 10-day period, the Santa Ynez River rose to record flows and redirected its course right through Rancho San Marcos Golf Club's 3rd hole. Below is the 3rd hole before the El Niño-driven rains, with no river in sight. At right, a photo taken Feb. 10 shows half the green and fairway washed away. Far right is the 3rd hole as photographed on Feb. 25. Notice the bunker at far left.

Photos courtesy of Scott Nair

El Niño out West

Continued from page 1 for damage.

"I cannot imagine how bad it would have been. Some comments during the TV coverage of the AT&T said the wall was making the waves break more violently. But the reality was that the old seawall might have been gone."

Some erosion has also taken place off the cliffs on Nos. 9 and 10. "It’s not the big concern right now," Michaud said, "but all the sand is gone from Carmel Beach."

The damage at Pebble Beach was not only right next to the ocean. "We lost cart-path access from the 5th tee to the 5th green and access from the 15th tee to the 15th green."

By "lost" Michaud meant the entire area was ravaged by storm runoff from the inland. The roads, water, sewer and other utilities were all severely damaged and when the water lines broke the damns ended up in the middle of the roads, "There was no place for the water to go."

"When it started to rain hard again, I knew we were in trouble," Nair said. "There was no place for the water to go." The second system took what was left of the 3rd hole.

"I saw trees with 60-inch-diameter trunks just get swallowed up and swept away," recounted Nair. The water-soaked soils were not able to take the rain from the second storm and the highway connecting the golf course to Santa Barbara fell victim of a large rock slide. Work to reopen the road may take until early May.

The green and fairway were washed away. Far right is the 3rd hole as photographed on Feb. 25. Notice the bunker at far left.

"There’s a way around but it takes an extra 45 minutes," Nair said.

Nair plans to reroute the golf course and, he said, adding: "It looks like we are going to be just fine. Play is impacted, but amazingly enough, we have people coming to play the course now that the weather is better."

In Northern California, the San Francisco Bay area received the same punishment from the ocean. Nearly 50 feet of coastline was swallowed up by record high surf in more than a few areas.

San Francisco's Olympic Club, site of the 1998 U.S. Open, received some damage to its recently constructed cliff holes nearest the ocean, but the damage was limited to two holes. Olympic Club superintendent John Fleming said, "We are assessing the damage to those holes and making plans."

The Lake Course which will host the Open was not affected. Fleming said. Elsewhere around the state, golf courses everywhere felt the impact of having too much rain. Many were closed for the first time ever.

"This storm caused the first time in my 11 years that I have ever had to close all 18 holes of my golf course at once," said Sam Williamson of the Ojai Valley Inn and Spa, which is located in storm-ravaged Ventura County. "We even lost a
West ‘watered’
Continued from page 31

few trees from wind — and the
wind hardly ever blows here.”

While insurance companies
count the losses in real estate
and property in the state of Cali-

fornia at nearly $1 billion, it
seemed obvious that economic
impacts will be felt by the golf
courses that have endured dam-
age and by those that have just
simply been too wet.

“The sun came out for a few
days recently and we realized
that not many people had been
out to play golf and all of the
sudden it seemed like they all
came out at once,” said Nair.

Ojai’s Williamson has another
way to look at it, saying: “Our
golf revenues are down 40 per-
cent, but the hotel stayed busy
due to people using our new spa
facilities. We have plenty of smil-
ing faces here. It could have been
worse.”

“We really have an opportu-
nity to work with this situation
and make the golf course bet-
ter,” Nair said. “Our staff really
pulled together. By that, I mean
our entire staff: my people, the
pro shop staff and everyone else.
We had members of the office
staff filling sandbags and the
food-and-beverage people pitch-
ing in and helping to clean up
and get us open after the storm.

“Everyone really gave 200 per-
cent and I am proud of them. I
cannot imagine getting all the
work done just to be able to use
the cart paths again if it were not
for all of those people working
their tails off. I saw Rancho San
Marcos at its worst and its best.
I’m looking forward to making
the course better than it was
before the rains.”

“We’re doing better now,” said
Pebble Beach’s Michaud. “We
definitely do not need any more
rain. There is going to be a bunch
of work being done in the area,
but the golf course is doing just
fine now.”

“This sort of thing is not a good
time for democracy,” said Costa.
“We can’t really gather everyone
around and start asking them their
opinions and taking votes on how
to get things done. We just have to
work hard and keep the staff in-
formed about our plans.

The superintendent at Rancho
Canada, Tim Greenwald, and his
assistant, George Young, have
done a great job of getting a ton
of work behind them, Costa said.

“We have found that the only
way we get through this is to
take problems in small bites
and help everyone stay focused,”
Costa said. “In a perverse sort of
way it is exciting because it is a
challenge in lots of problem-solv-
ing and I think that is exactly what
attracts many of us to this business.”

Bob Costa agrees that a team
effort is needed during these
times. “We’ve had the pro shop
staff and the cart attendants out
working with everyone else. I
know they get a sense of owner-
ship when they see what it takes
to get through these things,” he
said.

Nothing would have led those
in the golf business to be able to
see what was coming in 1998 —
even the hype over the possibil-
ity of a hard winter due to the El
Niño effect. However, golf
courses have endured the storm
and soon the normally mild
springtime weather will have
golfers lacing up their shoes
again. Most may never know that
the course they are playing on
was in some stage of flooding
only a few months earlier.

We never said you wouldn’t see unattractive spots
on your course. They just won’t be dollar spots.
Sunless and rain-laden, Florida’s courses causing stiff test for supers

By JOEL JACKSON

Florida’s golf courses escaped El Niño’s big wind, but the heavy rains are causing serious problems. A winter storm attributed to El Niño raced across central Florida in the early morning of Feb. 22, unleashing a cluster of tornadoes that touched down in Kissimmee, Winter Garden and Sanford near the middle of the state and in Ormond Beach on the East Coast. Forty people were killed and hundreds of families left homeless as the twisters targeted several residential areas. A survey of courses in the affected areas revealed that no golf courses were hit directly and any damage sustained was no more than a few broken limbs and power outages typical of any Florida thunderstorm. Kissimmee Bay Country Club may well have been the closest course to the destruction. “We were very lucky,” said superintendent Jim Moulton. “The tornado that did all that damage to the Ponderosa Park mobile homes touched down only three-tenths of a mile from here. The irony is that we were going be sweeping and vacuuming the course for all the fallen oak leaves, and the next day after the tornado, they were gone — sucked up by the tornado.” Kissimmee Bay was without power for six days and managed to stay open by renting eight portable generators to operate the clubhouse facilities and charge the carts. As a result, the club will be installing a large emergency generator for future back-up.

Duane Petersen at nearby Meadow Woods Golf Course also dodged the bullet on that fateful morning. “We were in the path, but it skipped over us,” he said. “Our problem has been like everyone else’s in the state: lousy growing conditions. The weather has been wetter and warmer than usual and that has led to lots of algae and fungus on the greens. While the courses in central Florida avoided the cataclysmic disaster, they have been enduring more insidious and frustrating effects from the freakish uncharacteristic weather patterns spawned by El Niño.

Rainfall records tumbled as precipitation amounts four to seven times normal were recorded during Florida’s normally drier winter months. The incessant rains and overcast days ruined attempts to establish stands of overseeded grasses and made normal turf management on unoverseeded greens a nightmare.

The soggy conditions have caused more course closings, lost revenues and marginal playing conditions than any other prime winter season in recent years. Dan Alwyn, superintendent of Oceanside Country Club in Ormond Beach, said: “We missed the wind damage, but the heavy rainfall just added to the misery of our thinner-than-normal greens. The constant rains have kept the greens very soft and ball marks have become a major problem.”

Superintendents Joe Ondo at Winter Park Pines and Pat Hennessey of Disney’s Bonnet Creek Club are preparing to regrass their greens. “During the worst spells of rain and overcast in December and January, some of our weaker strains of Tifdwarf just disappeared,” said Ondo. “I have had soil and tissue tests run for nematodes, disease and chemical residues to identify the problem. Nothing has come back positive. It was basically environmental stress.”

Hennessey attributed the thinning of several of his greens to a combination of circumstances aggravated by the bad weather. “When the weather started going bad, we were in the middle of a major event which required us to keep several of our greens

Continued on page 34
Florida in long-term 'greyness'

Continued from page 33
groomed to maintain high greens speeds," he said. "They had a lot of foot traffic and we had an outbreak of Pythium at the same time. Without good growing conditions, they just couldn't take it. Then the floodgates really opened up and high water levels up to 10 feet above normal kept the greens' sub-drains full and the root zones under the greens saturated."

Preparing for major professional golf events in the area has been a difficult challenge for superintendents. Tom Alex of Grand Cypress Golf Club hosted the LPGA’s Healthsouth Inaugural in January.

"First, the decision to host the tournament was made after we had begun our overseeding program for 1997-98. At that time we didn’t know we’d be hosting the event," Alex said. "In the past we had been very successful with a 100-percent bentgrass overseeding and we decided to try it again this year, but this winter was decidedly different. "Bentgrass doesn’t like wet and humid conditions and that’s what this winter has been. We were fortunate to get through the tournament just as the bentgrass was germinating, but the prolonged dark and damp conditions took their toll on several greens. We are in the process of rebuilding a couple of greens that didn’t handle the wet weather very well."

Dwight Kummer at Bay Hill Club spent a nervous winter nursing thinner-than-normal greens through December and January.

"Getting ready for this year's Bay Hill Invitational has been a battle of wills," he said. "Every time we put down seed, it would rain and wash it away. Consequently, we have had to seed more often than in the past to get the density we wanted for the tournament."

"Also, the weather didn't permit us to be as aggressive grooming our greens this winter. We kept the solid rollers on our mowers all the way through January. We began to see a break in the weather in early February with sunnier days. Fortunately, it’s finally coming together."

The widespread decline of course conditions this winter prompted the Golf Course Superintendents Association of America, U.S. Golf Association Green Section and University of Florida to send out letters and information packets to Florida courses and superintendents to help explain and deal with the effects of El Niño’s weather patterns on growing turf on Florida’s courses this winter.

Maine ‘iced’ in

Continued from page 30
trees, Skorulski suggested superintendents look for sugar and red maples, oaks in more sandy regions, and hickory. “Ash are getting hit by certain diseases, but I’d prefer them to the low-value trees like poplar, weeping willow and silver maple,” he said.

Stipes was hopeful about New Harmony and Valley Forge — new elm trees from the U.S. National Arboretum in Washington, D.C., which are not on the market yet.

In the meantime, some superintendents might look at this example of nature’s tree-thinning as “a blessing in disguise,” said Skorulski. “If they’ve had some problems with trees out on the course, this is their chance to take care of them.”

“Nature has been trimming trees for years. It’s one of the greatest tree maintenance methods,” said turfgrass consultant Terry Buchen. "A lot of times it will only remove dead wood. But I realize there are extremes where it does severe damage.”

“I suppose there are a few trees I would have liked to take down,” said Hoisington. “On the 3rd tee we lost trees behind the tee that will increase sunlight and air circulation. But, overall, it’s much better to go in and cut them than to have the damage we did.”

Whatever course superintendents take, Skorulski said they can expect to see the effects of The Ice Storm of the Century for many, many years to come. “Five, six, eight years from now, you’ll see misshaped forms out there,” he said.
The Squire, The Slammer (and Weed) finish Village track

PONTE VEDRA BEACH, Fla.—The Slammer & Squire, the first 18-hole course at the World Golf Village in St. Augustine, opened March 1.

Bobby Weed, architect for the course, is pleased with the results. "I feel that we have created a course that is worthy of the location, and having input from two legends of the game contributes significantly to the overall importance of the project. The World Golf Hall of Fame at the World Golf Village represents a new era in the game of golf. To have all the world's greatest golf associations united in this wonderful effort certainly stirrs the spirit of those who love to play," Weed said.

Gene Sarazen and Sam Snead were chosen as player consultants to the course, which will host The Legends of Golf tournament beginning in 1999. Both Sarazen and Snead will be enshrined in the Hall of Fame when it opens in May.

"Our charge was to create a 'fun and interesting' golf course. While it is always difficult to pick a favorite hole or holes on any golf course, I think that most players will find a number of holes to be unique and challenging," Weed said. "Overall, the design intent is strategic with risk and reward opportunities. Each golf hole has its own character and provides multiple tees and a diversity of options to fairly challenge every caliber of player."

The course meanders through an old pine forest plantation, typically referred to as flatwoods. Much of the surrounding property is set aside as preservation, with wetland corridors linked together to protect wildlife. The abundant native and indigenous vegetation of north Florida abounds and creates a recurring theme throughout the golf course.

The Slammer & Squire is a Signature Course of the Audubon International Cooperative Sanctuary Program.

Mike Strantz, above, on site at True Blue, his latest creation, on Pawley's Island in South Carolina. Below is the 11th hole.

True Blue opens next to Strantz's Caledonia

MYRTLE BEACH, S.C. — True Blue, the fourth Mike Strantz-designed golf course, opened for play Feb. 1. Strantz designed the award-winning Caledonia Golf & Fish Club on plantation land adjacent to True Blue.

True Blue is a 6,875-yard, par-72 course on the site of True Blue Plantation, a famed 19th-century indigo and rice plantation. The course features bentgrass greens, an 18-acre practice facility with a learning center, and an emphasis on the natural beauty of the area, using native grasses and vegetation and maintaining much of the character of the property.

Continued on page 37

Mike Strantz, architect for the course, said, "One of the exciting aspects of this project is that it's a bit of a new environment for us—embryonic wetlands. How do you build a golf course here?"
CSM to design ‘Son of Captains’ track in Bay State

BREWSTER, Mass. — Ground has been broken here on 18 new holes adjacent to The Captains Golf Club, the award-winning layout from course designers Cornish, Silva and Mungeam (CSM). CSM Partner Brian Silva, whose original 18 at The Captains was named Golf Digest’s Best New Public Course for 1985, will design the new 18 right next door. However, Silva will integrate both courses so each nine will feature new and original holes. Silva expects all 36 to be playable by late summer 1999.

“When we’re done, the town of Brewster won’t have an old golf course and new golf course,” Silva explained. “It will have two completely new golf experiences. Of course, this requires that we work hard to blend the style of the new holes with those existing holes. Fortunately, the original course routing makes this sort of integration feasible. It’s extremely serendipitous that the original course had four starting holes and four finishing holes in reasonable proximity to the clubhouse.”

The town of Brewster and CSM have enjoyed a long, successful history. CSM Partner Geoffrey Cornish first walked the original course site in the mid-1970s, but funding wasn’t approved for the project until 1983. After the original course opened to immediate acclaim, the town considered building the second course straight-away. However, funding for the new 18 wasn’t approved until 1997.

The original Captains design — so called because each hole is named for one of Brewster’s historical sea captains — was Silva’s first solo effort; the new 18 will be his 38th. The contractor which built the original course, International Golf of Arlington, Mass., returns this summer to build the new one. “There are all sorts of wonderful ironies and happenstance associated with this job,” Silva said. “It’s an incredible thing to do another 18 adjacent to my very first solo design. I can’t wait to get started.”

When the new course — which Silva affectionately calls “Son of Captains” — opens for play next summer, the tiny Cape town of Brewster will boast four CSM-designed layouts. Ocean Edge Golf Club, longtime site of the New England PGA Championship, made its debut in 1986, while Cape Cod National will open for member play in May. “Needless to say, the town of Brewster has been hefty, hefty good to CSM,” said Silva, paraphrasing the immortal Chico Esquella.

Based in Uxbridge, Mass., CSM will christen five original 18-hole designs in 1988, including the hotly anticipated Waverly Oaks in Plymouth, Mass., and Charleston Springs in Monmouth County, N.J.

Further afield, Silva recently completed a renovation of all 185 bunkers at Donald Ross’ Seminole Golf Club in North Palm Beach, Fla. Meanwhile, work continues at Seth Raynor’s Fox Chapel Golf Club, which Silva is restoring in anticipation of the USGA’s Curtis Cup matches in 2002.

Legacy reopens after $2.3M redo

PORT ST. LUCIE, Fla. — The Legacy Golf & Tennis Club reopened Jan. 17 after a $2.3-million renovation. Improvements included several new tee boxes, bunker remodeling, extended cart paths, a new practice tee on the back side of the driving range, and extensive landscaping.

The Legacy Golf & Tennis Club is a private equity club located in “The Reserve.” The course was designed by George Fazio and his nephew Jim Fazio. Built in 1984, and originally known as The Reserve Golf & Tennis Club, it was owned and operated by the Fazio family.
Schreiner busy on Ohio projects

AKRON, Ohio — Recent assignments at Chippewa Golf Club and Westfield Companies Country Club are fueling architect Craig Schreiner's presence in Ohio. He has been retained by the two northern Ohio clubs to prepare long-range master plans.

"We will focus on basic improvements such as drainage, new tees, bunker renovation, tree work and practice area enhancements," said Schreiner.

The Westfield Companies Club is a 36-hole facility with two distinct courses developed in the 1970s. The older South Course was initially a nine-hole layout. The North Course evolved to accommodate the successful growth of the Westfield Insurance Co. The Chippewa Golf Club was built in the 1970s in two phases as well.

"The renovation of Chippewa will be dramatic," Schreiner said. The site is exceptional due in part to a major drainageway that bisects the site eastwest. Several holes will be rerouted increasing length and variety in the layout.

Schreiner, who helped restore Donald Ross's East Course at Oak Hill Country Club for the 1995 Ryder Cup Matches, is also under contract with NCR Country Club, where preparations are underway for the 1998 U.S. Mid-Amateur. The two 18-hole courses were designed and built by Dick Wilson in the early 1950s.

"The intent of the master plan is to improve playability for both courses while maintaining the integrity and distinct character of each golf course," said Schreiner. "The South Course is more challenging, tighter, and tree-lined with contoured topography and dramatic greens.

"The North Course is much more playable due to its wide landing areas and shorter length. It is open, the greens are somewhat modestly contoured, and the landing areas are more forgiving."

North Course improvements include developing a short-game practice area and renovating the existing practice range tee and landing area. Native vegetation will be introduced in non-play areas of the golf course to diversity wildlife habitat areas and to reduce maintenance costs. To improve playability, forward tees will be added on the North and South courses and back tees will be added on the North course. A tree program for removal and planting will be developed for both courses. Schreiner will also prepare landscape plans for the entry of the newly renovated clubhouse as well as formal landscape treatments for the starting tees on both golf courses.

"We'll be tweaking the courses at NCR to make sure they are in pristine condition come tournament time," said Schreiner. "We're pleased that NCR is dedicated to improving their fabulous facility."

Elsewhere, Schreiner is finalizing a strategic preservation plan for Donald Ross-designed Oyster Harbors Club in Osterville, Mass.

Planned improvements include drainage on several holes, remodelling of the practice range, development of a short-game practice area, and new tees.

Poorly drained areas will be addressed and a golf cart path will be added to facilitate efficient golfer circulation while reducing compaction on the course.

True Blue opens

Continued from page 35

The project broke ground in June 1996. Strantz has modeled True Blue on the characteristics of Pine Valley and Pinehurst #2 — with emphasis on maintaining a natural feel similar to the top courses in the United Kingdom. "What makes the British courses so great is the subtle nuances of the fairways and rough," he said. "It's why those great courses really withstand the test of time. We're not taxing the acquirers by pulling out water to irrigate 100 acres of grass. Instead, we're making use of sand and natural vegetation to compliment the wetlands.

These efforts are aided by a layer of white sand just below the topsoil, which allows for some tremendous scenery and contour changes.

Strantz was joined in the building of the course by former PGA Tour player Forrest Fezler and Danny Gore, the head PGA professional for True Blue. Gore volunteered to step out of a traditional "golf pro" role to help build the course with the construction team, allowing him to learn the nuances of the course literally from the ground up.
Louisville, Ky. — Maxwell Golf Group, Inc.'s Golf Course Design Division is designing an 18-hole layout for a group of private investors here. The facility, to be named The Corporate Club, will be the first design project in the Bluegrass State for the Jackson, Miss.-based company.

"We're extremely excited about the opportunity to be involved with this particular project," said MGG founder and president Frank M. "Max" Maxwell Jr. "The owners have some impressive goals for the facility and they have given us one of the most beautiful pieces of property you can find in the area."

The facility will be private, with executive villas incorporated into the design. The Corporate Club will be the firm's first new course design project for an exclusively private club.

"The situation is somewhat ironic," Maxwell said, "in that when we were approached by the owners, they had no idea of our experience with 'Scottish links-style' designs and that's exactly what they had in mind with their open and rolling piece of farm land." Maxwell also mentioned that The Corporate Club will be centered around a group of old brick farm buildings on the property which are all painted white with red roofs. "The buildings, which are present throughout the property, are priceless because they will provide a striking contrast to the deep green color of the surrounding turf," he explained.

Meanwhile, MGG has been working on the design of a new semi-private golf course north of Baton Rouge in Zachary, La. Copper Mill Golf Club is an 18-hole layout which will be the centerpiece of a new upscale residential development sharing the same name. Target opening date is this fall.

"The owners wanted to take the theme of a 'Scottish links-style' course to the next level," said Maxwell. "Copper Mill will have the old-world traditional golf course styling blended nicely with the agronomic conditioning and aesthetic appeal which we as Americans have come to expect from an upscale facility."

Maxwell claimed the 14th hole will become "The Longest Hole in America." The par-6 will play 880 yards [one-half mile] from the tee. "On the other hand," he laughed, "The alternate route to the green, which is shorter and riskier, is only 780 yards."

Maxwell was quick to note, however, that the 14th hole is not merely a gimmick. "The design of the entire course will be fun to play and have that world-class look and feel," he continued. "This will be one of those courses which golfers can't wait to play again." Copper Mill will, however, provide Maxwell with the opportunity to realize one of his oldest design ideas—a downhill par six with the chance to "get home in three for an eagle."

DALLAS — Olympus Real Estate Corp. and Castle Hills Golf Partners, Ltd. have entered into a joint venture to develop Castle Hills Golf Club & Academy. An 18-hole daily-fee course, which will be expanded to 27 holes in the future, the facility is scheduled to open in early 1999.

The North Dallas course was designed by Jay Morrish and will include a teaching center. The venture plans to solicit proposals for daily management of the facility.

Castle Hills Golf Club will be located on a 2,500-acre master-planned development formerly known as Bright Ranch. The project will include 3,000 single-family homes, numerous multifamily sites, retail and commercial office parks and a 350-room, $60 million conference center.

Ray G. Wicken, managing partner of Castle Hills Golf Partners, said Castle Hills will feature the most comprehensive golf facilities in the state, including three golf holes for on-course instruction.
Nicklaus takes on preservation challenge on Rocky Gap project

CUMBERLAND, Md. — The developers of one of the East Coast’s newest destination resorts were faced with a formidable task: to design a golf course of the caliber and quality of a competition course in a mountain setting, while preserving the site’s natural beauty and distinctive environment.

The result is the 18-hole Jack Nicklaus Signature Golf Course, the cornerstone of the soon-to-be-opened Rocky Gap Lodge & Golf Resort in the mountains of western Maryland near Cumberland. With the front nine holes scheduled to open in late summer, and the back nine in the fall of 1998, the Rocky Gap course promises to be a mountain marvel combining modern engineering with Mother Nature’s handiwork. "Jack Nicklaus is very excited about this course," said Troy Vincent, design coordinator with Nicklaus Design, who is overseeing construction of the course. "Rocky Gap presents a unique site, with multiple terrains. By preserving as much as possible of the natural mountain landscape and foliage, the course provides more challenges to player than other courses."

The front nine holes will provide wide open spaces and gently sloping holes, similar to golf courses found in the Southwest.

The back nine will climb the area’s natural rugged mountain terrain, with woods surrounding the fairway.

Greens are being planted with bentgrass. Formations of natural stone are scattered throughout the periphery of the course, and grass and foliage native to the region will be planted. Many natural springs and wetlands, carefully preserved, are on site.

Natural methods and materials will be extensively employed in maintaining the course. Pest control will use organisms found in nature and introduced into the irrigation system to prevent weed and insect infestation. Once the course is open, organic fertilizers will be used to nourish the greens.

Water run-off from the course has been minimized. Water used for irrigation will filter through a turf canopy, thatch layer and into underwater aquifers to remove contaminants.

A "wash down" area for golf carts and maintenance equipment has been designed especially for Rocky Gap. Water used to wash equipment drains into a unique "weir" system, where wooden barriers trap solid waste. The newly cleaned water flows into underground separators and runs back into the lake as pure water.

An average of 250,000 gallons of water will be used to irrigate the course each day. A system using more than 18 miles of pipe and 139 miles of wiring will deliver water to approximately 900 sprinkler heads throughout the site.

A hi-tech satellite control allows operation of the sprinkler system from several points around the green, rather than just one.

Computers will manage each of the aspects involved in the course's upkeep, including irrigation, labor analysis, chemical inventory, equipment and project management.

Players will be able to practice their swings from a 2-tier, half-moon-shaped driving range with a putting and chipping green nearby. A PGA professional will provide expert instruction in the game, and golfers can visit the lodge's pro shop, offering first-rate golf clothing, shoes and equipment.

For after-golf celebrating, duffers can visit the 54-seat Signa-tures Bar and Grill, overlooking the lake. Plans call for the establishment of a professional golf academy at the resort in the near future.

The resort is managed by Florida-based Buena Vista Hospitality Group.

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N.C. corporate park opening resort daily-fee golf club

CHARLOTTE, N.C. — Adding a unique touch to the newly developed Ballantyne Corporate Park, Bissell Golf and owner/developer Smoky Bissell have announced the May opening of Golf Club at Ballantyne Resort.

The focal point of the 525-acre Ballantyne Corporate Park, the upscale resort daily-fee golf course was designed by Land Design, Inc. of Charlotte. Ballantyne Resort is a resort and recreation complex being developed by Bissell Development.

"The Ballantyne Resort course will be one of the finest resort/daily-fee courses in the South," said Bissell Holdings' David Conlan.

The par-71 layout has five sets of tees that play from 6,735 to 4,815 yards.

"The course has a distinct Donald Ross feel," said Director of Golf Dana Rader.

"Every hole is memorable, the topography is undulating and scenic, and the challenges are numerous. It is what I call a 'thinker's course.'"

The 4,500-square-foot Dana Rader Golf School and teaching center opened Oct. 1.

Nelson Cato, a 20-year veteran with extensive experience in North and South Carolina, is the golf course superintendent.

Foster faces history in Miami, Louisville tracks

LOUISVILLE, Ky. — Keith Foster Golf Course Design has been retained to work with Louisville Country Club here and at Miami Springs Golf Club in Miami, Fla.

Louisville Country Club is considered among the top old clubs in Kentucky and was designed by Robert White and Walter Travis in the early 1900s. The intent at Louisville is to develop a program for a sensitive restoration of the course.

Miami Springs Golf Club has been referenced as one of the more historic courses in the country. Miami Springs will be going through an extensive renovation and restoration.

Big Canyon hires Harbottle to handle redesign

NEWPORT BEACH, Calif. — Golf course architect John F. Harbottle III has been hired to oversee a major remodeling of Big Canyon Country Club here.

Ground will be broken early this year on the $3.5-million project, which should be completed by the fall.

Meanwhile, grassing is complete on the Harbottle and Johnny Miller-designed Sierra Nevada Golf Club in Genoa, Nev. The second upscale public course Harbottle has designed in the area, the track winds through rugged, high-desert savanna. It should open for play in the summer.

Construction is completing at The Tradition, a 27-hole upscale public course Harbottle designed in San Jose, Calif. Expected to open in the fall, the stand-alone course is carved through oak forests and over rolling terrain near the Callero Reservoir.

VALPARAISO ADDING MUNI

VALPARAISO, Ind. — The brainchild of Mike Laughner and Nancy Bender, the city's PGA teaching professionals, this community will build a new upscale municipal golf course and training center here. The city owns and maintains an 18-hole course. Due to explosive growth of the city's junior and beginning golf programs, the concept of focusing on the development of a golf training and teaching centers became evident. Don Childs Associates has been awarded the master planning and design contract for the facility. The initial master plan is to focus on developing the remainder of the acreage as public park and nature preserve.
Atlantic Canada rediscovers golf as an attraction

By PETER BLAIS

After years of limited development, Canada’s Atlantic Provinces — New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland — are beginning to attract the interest of major golf developers.

Geoffrey Cornish-designed New Ashburn (1969) in Halifax, N.S., and Bill Mitchell-designed Mactaquac (1970) outside Fredericton, N.B., were the last major Maritime projects to open in the three decades preceding the 1990s, according to Larry Brown, president of Fredericton, N.B.-based Atlantic Golf Construction Ltd. Atlantic Canada saw only the occasional renovation project and low-level push-up golf courses through the 1970s and 1980s, Brown said.

“\The first modern course was Crowbush Cove on Prince Edward Island (PEI) which opened in 1994,” said Brown of the Thomas McBroom design that Golf Digest named the Best New Course in Canada that year. “The PEI government had the foresight to do Crowbush against a fair amount of opposition. They’ve never made a lot of money off it. But a golf course generates a lot of ancillary revenue such as accommodations, gasoline and retail sales.”

The government has traditionally been a major sponsor of golf in Eastern Canada. The federal government’s Parks Canada has owned or operated Cape Breton Highlands in Nova Scotia, Fundy National in New Brunswick, Green Gables on PEI and the Golf Course at Terra Nova in Newfoundland.

Provincial governments have also been heavily involved. There are three provincial courses on PEI — Crowbush, Mill River and Brudenell — and two in Nova Scotia — Digby Pines and Northumberland Seashore Golf Links. New Brunswick’s provincial government participated in the construction of several facilities, including Mactaquac and Campobello Island.

“Crowbush turned the corner and created a new demand for golf,” Brown said. “It’s the way it should be done. It’s not an easy course to play. But it has been well accepted by the better golfers and has attracted people to the region.”

Since Crowbush, developers have shown renewed interest in the region, Brown said.

McBroom-designed Bell Bay on Cape Breton Island was the next major project after Crowbush. It was built with government money, but is operated by the private sector. Rain slowed the project with the remnants of three hurricanes drenching the Atlantic coast in 1996. But it opened in 1997 and has been nominated for Golf Digest’s Best New Course in Canada.

Cape Breton Highlands was renovated in the mid-1990s and was very well received. The Stanley Thompson design has traditionally been ranked among the country’s top courses.

Newfoundland has had some projects, including Graham Cooke-designed tracks in Saint Johns and Cleaveland.

While high-end facilities like Crowbush, Cape Breton and Bell Bay received most of the attention, many moderately-priced courses undertook renovations to keep up with their more well-to-do neighbors. Localities and entrepreneurs also built inexpensive courses throughout the region. Having a relatively low population and little private investment capital, these lower-end courses are important to the region’s beginning golfers.

In 1996, Cooke received a contract to design Osprey Ridge in Lunenburg, an hour west of Halifax, that Brown expects will be ranked among the top five in Atlantic Canada. “Modern courses in our region are characterized by a complete irrigation system (not necessarily double row) and bermgrass fairways. That Lunenburg will be one of three bermgrass courses in the region.”

The future looks bright in the Maritimes. Cooke-designed Glen Arbour, the first real-estate golf community in Nova Scotia, is being developed by a group of Halifax businessmen.

A nine-hole, Ward Northrup-designed track with housing running along most holes will open in Batherston, N.B., this summer and a Rees Jones design called Royal Oaks is scheduled to break ground in Moncton, N.B., this spring.

Ron Gogan, a local drilling company owner, is among the developers of the Royal Oaks golf course community.

The province of New Brunswick hired McBroom to oversee a two-year renovation to the St. Andrews course at the Algonquin Resort, owned by the province and operated by Canadian Pacific railroads. The fact it is a Donald Ross design has caused some controversy. But the design has been modified so much over the years that little of the Ross flavor remains, Brown said.

Michael Hurdzan has been retained to design a second course at the existing Brudenell Resort in southeastern PEI. Construction is expected to start this year. Other less-expensive projects should also begin construction this year on PEI, Brown said.

But Nova Scotia is truly the hot spot along the North Atlantic coast. Cooke is designing Fox Harbour on Northumberland Strait. The high-end course, a jet strip and housing should start construction this year and open by fall 1999. After a 12-year effort, businessman Jim Leahy hopes to start construction this spring on an 18-hole course named Arrowhead, located just north of Halifax. Heartland Park Golf Club, an 18-hole military course that is open to the public in southeastern Dartmouth, will add nine seaside holes.

Cooke is also designing an 18-hole track in Fredericton, N.B., called Kingswood Meadows that will likely begin construction in 1998 as part of a privately owned recreation complex. A number of smaller, low-budget courses will begin construction or come on line this year throughout Atlantic Canada, Brown added. A typical nine-hole course with push-up greens can cost as little as $150,000 Canadian.

“One of the most important things that has come along in the Fredericton market during the 30 years I’ve lived there,” Brown said, “is an inexpensively built, nine-hole course called Gilridge. You can play it in an hour and a quarter and it costs just $8. It’s extremely busy. New golfers are not intimidated by

Continued on page 46
First Tee's 'first' goes to Va. county

Continued from page 1

owed on April 21 by a Planning Commission vote on land use and permitting and on April 22 by a Board of Supervisors session to approve a lease that has been drawn up between the county and RFTF.

RFTF's move to work with Chesterfield County followed closely on the heels of a proposal to the city of Richmond. But Richmond officials wanted to delay any decision beyond the timeline desired by RFTF. Tattersall and his board were adamant that the Richmond First Tee be the first in the country to be built. Other existing golf facilities have added First Tee programs, but Richmond's would be the first from the ground up.

"It's a terrific project and quite inspirational," said Tod Leiweke, who took over in late February as administrator of the national First Tee program. "What we saw there was a very committed group of people who had come together and donated time and money. But, more than anything, they had a passion to see something happen — to make a difference in the lives of kids through this great game of golf.

"Chesterfield County stepped up and provided an excellent piece of land and are in a real fast-track to get this thing done."

The First Tee, Leiweke said, "is not a lay-down concept. It takes some imagination and a leap of faith... There is something unique about being the first as an idea. This project that will be the model for many of the agreements we get into."

The First Tee's vision, he said, "isn't 10 facilities. Our vision is hundreds across America."

Hundreds of inquiries have already been filed by Leiweke's office at PGA Tour headquarters in Ponte Vedra Beach, Fla. They have ranged from people saying they would love to see a First Tee facility in their community to people, like Tattersall, saying they will do whatever it takes to make it happen, Leiweke said.

For his part, Tattersall is excited about the Chesterfield County property. It is a 125-acre parcel of land in Iron Bridge Park within 10 miles of 11 elementary schools, four middle schools and three high schools.

"Draw a five-mile circle around it," said Chesterfield County Director of Public Affairs Don Kappell, "and the demographics are such that it would very well serve the stated needs of The First Tee's organization: underprivileged youths, seniors and women. You have Petersburg, Richmond and other areas that have a lot of immigrants and others who meet that criteria."

"All the discussion has been very, very positive," Kappell said. "It's a tremendous site. The relationship has been very good among all the different parties. The caveat is that we're still discussing it and nothing has been signed — yet."

While Tattersall said RFTF still hopes to do a First Tee facility in Richmond, he said the county property is twice the size of the city's. That will allow an 18-hole course instead of nine holes.

"It will have a full driving range that will probably be lighted," he said. "And we are planning a three-hole pee wee course for 80- to 100-yard shots, for the kids to practice on after graduating from the range, but before they're ready for the full course."

Golf course architect Lester George, who is donating his services to design the course, said, "This is a beautiful property — rolling with creeks meandering through it." He even plans a waterfall between the 9th and 18th greens.

"It is really important not only for the First Tee to be developed here but that it is the first," said PGA Tour golfer Robert Wrenn, a Richmond native who is donating his services. "Being first creates phenomenal exposure for this area and the greatest opportunity for greater expansion of the program locally... More importantly, it would quickly create the opportunity for underprivileged inner-city kids to enjoy
ALMUT CREEK, Calif. — The Northern California office of Graves and Pascuzzo Golf Course Design and Development have announced two new Southern California projects.

With its Glen Annie project for Environmental Golf nearly complete in Santa Barbara County, the design firm is expanding its Southern California portfolio with the addition of two 18-hole projects. The first is The Knightsbridge Golf Club in Camarillo. A project of R.W. Hertel and Sons, Inc., it is a 243-acre golf community with single-family residential units and clustered golf villas.

The course will be an 18-hole, semi- upscale daily-fee course with practice range. The golf architect will be Damian Pascuzzo. Design development is underway, with construction documents immediately following. Ground-breaking is scheduled for November.

Meanwhile, Sunroad Enterprises has contracted with Graves and Pascuzzo to design an 18-hole course on the “Old Coach Site” in Poway, in northern San Diego. This is Sunroad’s first venture into golf development following a history of commercial office building development. The 7,100-yard, par-72 course has been named Sunroad Country Club. The parcel has a history as a former stage coach stop. Rock outcrops will punctuate the design and a streambed will wind through the course and play into the strategy of the design.

The project will also feature an 18-hole putting course and a practice range.

Robert Muir Graves and senior golf course architect and Neal Meagher will collaborate on the design.

First Tee project

Continued from previous page

a game that we all love. And, it will create this benefit without cost to [taxpayers].” Indeed, Tattersall’s group has raised all the money necessary to build the facility and operate it for five years. By then, it should be self- sustaining, he said.

The list of those who are stepping forward to help is growing. Virginia Turf and Irrigation has offered to help install the irrigation system at its cost. Free legal services are being given by the local law firm Williams, Mullen Christian and Dobbins. Ernst & Young will do accounting work pro bono.

The local engineering firm Timmons & Associates has agreed to do the engineering work for one-third the normal cost. And, nationally, Arnold Palmer has given The First Tee 3,000 sets of clubs to be disbursed to various First Tee chapters.

“We will have here,” said Tattersall, “is a $4-million facility we hope will cost about $2.2 million. That’s $1.25 million in land and $2.8 million worth of construction. We may get as much as $600,000 in free services.”

Leiweke promised: “We will provide the same amount of passion for the 100th project as for the first.”

“We have a number of other facilities not far behind Richmond,” he added. “Every day we’re collaborating and giving life to First Tee projects. Our goal is to have 100 in development by the year 2000, and I think that’s a very realistic target.”

The PGA of America, PGA Tour, LPGA, U.S. Golf Association and Augusta National Golf Club are all directly supporting this initiative.

While Wrenn is lending his time to what will be called the Richmond Metropolitan First Tee Chapter, Leiweke said: “There are lots of icons in the world of golf: all the tour players, local heroes, etc. In their respective communities The First Tee will be a big deal. The enthusiasm is out there because there is such an extraordinary need. Not just the need to play golf, but a need for the values inherent in the game of golf.”

The PGA of America, PGA Tour, LPGA, U.S. Golf Association and Augusta National Golf Club are all directly supporting this initiative.
Q&A: Strantz
Continued from page 35

tain things people can pick out as me in my designs. But I'm probably known more for being very selective and doing one job at a time. I turn down at least one job a week.

GCN: What design concepts do you stress?

MS: A lot of strategy, especially for the better player — the player who wants to think around the golf course. There is also a lot of subtle contours that can be used once you start to learn the course. I never try to demand that a golf hole be played a specific way. Let a golfer be creative. I feel that way especially after playing some courses overseas, and others like The National Golf Links [on Long Island]. That's a prime example. Depending on how you're hitting the ball, there are 18 ways to play a golf hole.

Strategy's always an underlying current. I think if you were to dissect every project I've done on my own, you will see that every piece of property has either one, or several distinguishing features. That's what I try to play upon. So, hopefully, the course takes on an individual look and feel.

A job is basically functional. It's not just a golf course, it's an environment. It's an environment for you to be challenged in and to enjoy yourself, to take in some beauty.
working on the crew. I was just doing bunker edges with the Fazio guys, laying sod, work that was not that design-orientated. They saw I had a knack for this and asked me to go to work for them. They hired me as a shaper and that's the work itself. That was a big break.

Andy Banfield is the person most responsible for getting me in the business. I owe it all to Andy. I tried to spend as much time with Andy as I could. He is brilliant.

GCN: Did Stonehouse and Royal New Kent propel you into the top echelon of golf course architects?

MS: I never stopped to think about it. Publications still write about them. But the job I had after those two — the one we just finished at Pawley's Island — was one for a former client. Clearly, the phone has rung more since those projects. But, hopefully, each previous job sells the next job.

GCN: You say you turn down a lot of proposals. Do you get intrigued by the land on some projects — by the developer who says he has a piece of ocean front land, or property on a mountaintop, for instance?

MS: For anyone who likes the business and likes to get creative juices flowing, it's very hard to say, "No," when someone dangles something like that in front of you. But it has to be close enough for me to be there four days a week.

The promise I made to myself and my family, and my clients, is I can't fit you into my schedule until after the year 2000. Quite honestly, that will be the end of the conversation for a fair percentage of those who call me. I had three or four people who've said they'll wait three or four years if that's what it takes.

GCN: Do you think you'll ever do more than one course at a time?

MS: I seriously doubt it. There is always some overlap. This early summer we will be grassing True Blue now and starting to clearing the next in Sanford, N.C., about 20 miles north of Pinehurst. This is in sandy hills and could be one of the best projects I've been involved in. It's called Tobacco Road and is 18 holes with no housing. Lee Paving owns it and has one of the best land uses for it. They've called me to a project like that in front of you. But it has to be close enough for me to be there four days a week.

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DEVELOPMENT

Dale, Elliott named vice presidents at Golfplan

SANTA ROSA, Calif. — Senior architects David Dale and Richard Elliott have been named vice presidents at Golfplan, the course design group founded here by Ronald Fream. In their new positions, Elliott and Dale are entitled to full voting rights at meetings of Golfplan's Board of Directors.

"I couldn't be happier to recognize David and Rick for their years of outstanding service to Golfplan," said Fream, whose firm has designed more than 150 golf course in 52 countries. "With this move, they have more of a tangible stake in how we do business."

Dale joined Golfplan in 1988, fresh out of Washington State University where he earned a BS in landscape architecture. "Ron had me on a plane to Asia within six months," said Dale, whose extensive course credits include the acclaimed Panya Park Golf Club near Bangkok, Guam International CC and Grand Shanghai G&CC. Dale is also lead architect at Eagle Ridge GC, a hotly anticipated daily-fee design which should open for play south of San Francisco near Gilroy, Calif., next year.

"I'm excited about our focusing on the U.S. market, where we have several projects in the planning phase," said Dale, who will spearhead Golfplan's spectacular Sparrebosch project in Knysna, South Africa. "Our work abroad has earned a great deal of attention for its quality. I'm confident our work in the U.S. will do the same."

Elliott earned a double major in landscape architecture and turfgrass management from the University of Maryland. After serving as head superintendent at Echo Mesa Golf Club, part of Sun City West, he worked with architect Cal Olson before joining Fream in 1988.

Since that time, Elliott has served as lead architect on several award-winning projects, including Golf de Fregate in St. Cyr sur Mer, France, and Golf de l'Isle Adam, named France's top new course for 1996. His spectacular design at Bali Pecatu Resort will open this year.

Canada

Continued from page 41

Canada

Brown sees growth ahead for the Eastern Canadian market and continued government involvement, since tourism is so important to the area's economy. The golf fever that has gripped Southern Maine will eventually work its way up the coast into the Maritimes, he predicted. Land is available at favorable prices outside the three major metropolitan areas — Saint John, N.B., Halifax, and St. John's, Newfoundland.

"Land around those cities is very rocky, which has made it expensive to build there," he said. "But today, with modern highways, people don't seem to mind driving a bit. You can build something a half hour to an hour outside the city and people will travel there if you give them a good product."

The rocky ground and relatively low budgets are the major roadblocks to building in Atlantic Canada. The weather is another problem. "We used to have nice summers and springs. Now we don't know what the devil you are going to get. We had the wettest weather in 140 years in 1996. And after June 20 of 1997, we had the driest."

On the plus side, the area is populated with good workers, friendly people, spectacular scenery and a Canadian dollar that provides good value for U.S. tourists. After cutting funds in recent years, Brown said, the government is increasing spending for good park projects.

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The course had been in Chapter 11 bankruptcy for almost a year, and the liquidation. The loan acquisition was negotiated and funded by Clubhouse Capital, a Rhode Island-based golf finance company which has worked with Bernard on previous deals. Bernard will complete about $200,000 in improvements to the course and clubhouse. The course will be managed by Bernard Golf & Asset Management Company, a newly formed affiliate of Bernard Investments, Ltd. The management company is headed by Don Carpenter, formerly of American Golf Corp. and National Fairways, Inc. Bernard Investments, Ltd. is considering several other golf course acquisitions in the region.

FREE MARKETING SERVICE OFFERED

World Golf Association (WGA), has created a new marketing program for course and range owners to promote their courses worldwide called “Partners 4 Profit.” Course owners who participate will have their courses listed as a WGA Member Course, have their courses promoted to all World Golf Association (soon to be 100,000+) members, get a free course listing and web-page link on the high traffic-MasterMind Communications, a leading marketing and Internet consulting firm, in conjunction with the newly formed World Golf Association (WGA) Sports “Golf Links - The Best Golf Courses To Play In The World” web site and more. For further information, contact Fred Conquest, MasterMind Communications, 6055 West Twain Avenue, Suite 165, Las Vegas, NV, 89117; telephone 702-363-1174.

LEGAL CORNER

Harassment, discrimination part of golf workplace

By LAWRENCE ROGAK

oss, you had better think twice before commenting on how tight that co-worker’s skirt looks, or passing around jokes based on race, sex or national origin. You might have to reach deep into the company’s coffers to pay for it. Businesses have always had to worry about risk and lawsuits, but this was usually in connection with injuries. But now, injured feelings can present a bigger economic hazard than injured bodies, and savvy business owners have no choice but to familiarize themselves with the potential risks in this area and to put into place a set of rules to deal with it.

Lawrence N. Rogak is the principal attorney in The Law Office of Lawrence N. Rogak, a 10-attorney firm in Oceanside, N.Y. which specializes in defending businesses in liability lawsuits. His telephone number is 1-888-LET-EM-SUE.

PERSONNEL CORNER

Our golfing guests have arrived

By VANCE ALFONSO

The Bible has a lot to say about how you treat guests. The Orient has forever been known for its traditions concerning guests. The word hospitality truly transcends all cultures and religions. To say that someone is hospitable, that they practice hospitality, is to pay them a wonderful compliment. And everyone loves to receive genuine warm hospitality from their host or hostess. Don’t you? I certainly do. Why, to Continued on page 52

Dakota Mgt. signs on in Sioux Falls

SIOUX FALLS, S.D. — The city of Sioux Falls and Dakota Golf Management, Inc. have announced the signing of a long-term contract for management services at the City’s three municipal courses.

Dakota Golf Management, founded by PGA Professionals Terry Comstock and Tom Jansa, has managed the courses since 1995 when the city of Sioux Falls decided to privatize operations at the courses. The new contract is for four years, with a four-year extension based on satisfactory performance by Dakota Golf.

“We are very pleased to be able to continue our work with the city,” said Terry Comstock, Dakota Golf’s president. “The new contract will allow both the city and Dakota Golf to continue to make real improvements at the courses.”

The city owns three courses with a total of 54 holes. Elmwood Golf Course is a 27-hole facility, with an 18 hole course designed by Larry Packard and a nine-hole layout that has been redesigned by Comstock and Jansa. Elmwood was listed on Golf Digest’s original list of “America’s 200 Toughest Courses.”

Kuehn Park Golf Course is a par-30 executive course that opened in 1976. The city’s newest facility is Prairie Green Golf Course, which opened in 1995. The course has received numerous honors. It was designed by Dick Nugent and built by Landscapes Unlimited.

The three courses hosted more than 130,000 rounds in 1997.

Under the agreement, Dakota Golf will continue to manage all aspects of course operations. The courses are completely funded by user fees.

AGC’s Price receives Humanitarian Award

SANTA MONICA, Calif.—American Golf Corp. Chairman of the Board and Chief Executive Officer David Price has received the prestigious 1998 Jerry Buss Humanitarian of the Year Award, in recognition of the company’s many years of support for the Muscular Dystrophy Association (MDA) and numerous other local charitable organizations.

Price received the award, named after Los Angeles Lakers owner Dr. Jerry Buss, on March 1 during the 11th Annual Magic Johnson Sports Star Award Dinner & Auction benefiting MDA.

The American Golf Foundation operates its “Adopt-A-Charity” program in which each of American Golf’s courses develops a partnership with a local charity and organizes an annual benefit golf tournament or other special event. Proceeds, including green fees, cart fees and Continued on page 52

Continued on page 50
LinksCorp receives additional backing from investors

NORTHFIELD, Ill. — LinksCorp, Inc., a national golf course acquisitions, marketing and management company based here, announced a $25 million investment in the company by AEW Partners II, L.P., an affiliate of AEW Capital Management of Boston. This agreement with AEW will provide LinksCorp with substantial growth capital to acquire up to 20 new courses over the next few years. LinksCorp already owns and manages 19 private, semi-private, resort and daily-fee courses, primarily in the Midwest and Southeast.

Other LinksCorp investors include Chicago-based Batterson, Johnson & Wang Venture Partners and William Blair Capital Partners, as well as J.P. Morgan Capital Corp. of New York and Norwest Venture Capital of Minneapolis.

AEW currently manages approximately $6.2 billion of capital invested in over $13 billion in property nationwide. The firm's clients include many of the nation's leading private and public retirement programs and endowments, as well as international and private investors. LinksCorp also recently purchased River Islands Golf Club, located just east of Knoxville, Tenn.

Rated the No. 1 public course in Knoxville and No. 2 in the state, River Islands features numerous holes crossing or playing along the meandering French Broad River. "We've been looking for some time to have a presence in Knoxville," said LinksCorp CEO, Ben Blake. "Having the No. 1 and No. 2-rated public courses in the state within one hour of each other gives us a number of cross-marketing opportunities to pursue. We also plan to aggressively grow the golf package business. And, we believe we can attract a number of local golf outings given the high-quality outing facilities at River Islands."

Planned improvements include turf, bunker and irrigation work. Improvements to the clubhouse are expected as well.

Barrett forms management co.

BIRMINGHAM, Ala. — Robert Barrett has formed Barrett Golf Management, Inc., a full-service golf development and management company. Company activities include the acquisition and development of golf courses as well as construction and on-going operational management on a fee basis.

Barrett was recently Director of Golf Operations for Drummond Company, Inc., headquartered in Birmingham, Ala. While with Drummond he was responsible for planning and managing golf operations of Rancho La Quinta (Calif.) Country Club; Old Overton Club in Birmingham; and Grasslands Golf & Country Club in Lakeland, Fla.

Barrett is also a managing partner of the golf course at Kelly Plantation, in Destin, Fla.

Prior to joining Drummond in mid-1993, Barrett was vice president of Sun Belt Golf Corp., which built Alabama's renowned Robert Trent Jones Golf Trail, consisting of 18 premier public golf courses spanning the state from the Appalachian foothills to the Gulf Coast. From 1977 to 1991 Barrett was manager and director of golf at Shoal Creek Club in Birmingham.

ST. PAUL UPGRADES COVERAGE

ST. PAUL, Minn. — St. Paul Fire and Marine Insurance Co. has expanded and enhanced coverages for golf facilities to include municipal and daily-fee courses as well as private operations under Eagle 3, a property and liability insurance program for commercial policyholders. These golf facilities are eligible for Eagle 3 as long as the operation of the golf course is the principal business of the insured. "The expanded coverage and enhancements of Eagle 3 should make it easier for agents to do business with us and help us to grow in the marketplace," said Jim Schulte, St. Paul's executive vice president.

Whatever your financial needs, let FMAC help you achieve your goal. FMAC Golf Finance Group is staffed by experienced professionals who really understand your business. We offer fixed rate loans with terms of up to 20 years. Our floating rate loans feature interest ceilings that protect you from runaway inflation and interest rates. We lend and lease to all types of golf course facilities, from daily-fee courses to member-owned clubs and long-term leaseholders. When we arrange a loan, it's based on the cash flow of your business—personal guarantees are often not required. Our legal and appraisal process keeps our fees far below those of other lenders. Simply provide us with the financial data for your facility and we'll provide an estimate of its value and the equity available to you.

Call Doug Brodie in Los Angeles; Ed Boyle or Ralph Little in Greenwich and find out how we take the hazards out of golf financing.
Watts, Ritts elected as NGF directors

JUPITER, Fla.—Edwin Watts, president/chief executive officer of Edwin Watts Golf Shops and LPGA Commissioner Jim Ritts have been elected to the National Golf Foundation's Board of Directors.

The balloting took place at the recent NGF Board meeting. In the election of officers, all four were re-elected. They are:
- Chairman — Robert Maxon, vice president/group publisher of Golf Digest-The Golf Company
- Vice Chairman — Scott Creelman, executive vice president of Spalding Sports Worldwide
- Treasurer — Joe Louis Barrow, Jr., president/chief operating officer, Izzo Systems, Inc.
- Secretary — Cindy Davis, senior vice president/business development, The Arnold Palmer Golf Company.

Creelman was also re-elected to another three-year term as a director, as was Allan Solheim, executive vice president of Karsten Manufacturing Corp.

The remaining board members, who were not up for re-election, are:
- Edmond S. Abrain, executive vice president of sales and marketing, Titleist and Foot-Joy World Wide
- Patrick O'Grady, senior vice president/golf business development, Spalding/Etonic
- George Peper, editor-in-chief, GOLF Magazine
- Bob Rief, general manager, NEI Golf
- Grant Spaeth, vice president business development, Golfweb
- Charles J. Yash, president/chief executive officer, Callaway Golf Ball Co.

Gotham Golf Partners

Continued from page 1

isn't managing very well. It's kind of a reverse of the industry norm. We want to make sure our managers are spending time with their families. It's healthier for them and, in turn, they are happier people who give better service to our customers... The corporate rat race is not what we sell. But there is the opportunity to grow.

Members of GGP's management staff are largely graduates of KSL Fairways, the Virginia-based course operator. Before founding the Miami-based firm in 1994, Mays was vice president of operations with KSL Fairways for three years and director of operations at Doral Resort and Country Club in Miami for four years before that.

Vice President of the Southern Region Mark McGagg was KSL Fairways' director of business development and acquisitions. Vice president of the Northern Region John Carapenta was a regional manager with KSL Fairways.

Chairman Stephen Garchik's expertise is in the banking and financial arena. Having served in 1987 president and co-owner of THE Evans Co., a regional commercial real-estate and development firm GGP acquired its first course on Dec. 13, 1996, and its second three weeks later. By the end of 1997, the firm's portfolio stood at five properties: California Golf Club (GC) in North Miami Beach, Fla.; Miami (Fla.) National GC; Stonebrook GC in Pensacola, Fla.; Montgomery National GC in Montgomery, Ala.; and Blackbeard Golf Links in Biloxi, Miss.

The company went on a buying spree in early 1998, acquiring eight courses and starting construction of a ninth in the space of three weeks. Added to GGP's holdings were Robindale GC and Lake Arbor GC in Prince George's County, Md.; Edgewood in the Pines GC in Pennsylvania's Pocono Mountains; Eagle's Nest Country Club (GC) in Sewell, N.J.; Wild Oaks GC in Salem, N.J.; Honey Run GC and Yorktowne GC in York, Pa.; and Greenscience Greens GC in Greenscience, Pa. The company also reached agreement to begin its first golf construction project in Port St. Lucie, Fla., with St. James Residential Devel- oper to build, own and operate the Ross Smith-designed course as part of the St. James community.

"We don't have a definite plan to grow by 10 or 15 courses a year," Mays said. "We never went at it that way. Our plan is quite the opposite. We'll simply grow as fast as we can get good people in place. We'll be governed more by people than plan, equity, debt or whatever."

What differentiates GGP from other firms?

"We're going in buying," Mays said. "We're not looking to manage. We're spec- cialists in turn-arounds. The first two courses we bought were definitely turn-arounds and they turned around even better than we projected. When you do that, why work for just $10,000 a month? We like to make an investment in time, effort and capital and realize a reward, from both the capital appreciation and operational revenue."

GGP's original name was Florida Golf Properties, reflecting the Southeastern location of most of its original five proper- ties. As the company expanded up the East Coast, it searched for a new identity. Following this February's multi-course acquisitions, the firm changed its name in deference to Gotham Partners, the New York-based investment partnership that has capitalized much of GGP's growth.

"It's an equity fund that looks for projects that are under-capitalized with good management. That's basically what we were when we found each other," Mays said.

While many industry experts say most of the easy-turnaround properties have been bought up, Mays disagrees.

"There has traditionally been very little financing available for non-cash-flowing properties," he said. "If you tried to go to golf lenders today, unless you're a proven operator, you won't be able to get a project financed. But there are still a bunch of turn-around properties available... We get calls every day from areas we're not in. The reason we won't go is because we don't have the extra people within our system. We could grow by 25 courses if we wanted. But that would be foolish."

Asked if GGP is either putting itself in position to be acquired or looking to acquire another major course operator, Mays replied: "We definitely have the equity and debt lined up to go that route. But none of the private guys can compete with the public funds. The cost of their money is so much less than ours, i.e. Meditrust, National Golf Properties, Golf Trust of America. Public money, where you are paying a 5- or 6-percent dividend, is obviously a lot less than we have to pay."

"It's still very much a cottage industry. There are more than 15,000 courses with less than 1,000 that are professionally managed. That means we [professional opera-
tors] are not even at a 10-percent market share, even with everything that's going on. There's plenty of opportunity for every- one. There will be a consolidation. The public companies are in the driver's seat. But the RETIs (real estate investment trusts) still have to have course operators."

The Mississippi River is the company's westward geographic boundary. GGP would also consider any type of course. It currently operates semi-private and daily-fee layouts and will start construction of the private, St. Lucie, Fla. project in the next six months.

PCP at Wakefield names Davis director

NORTH RALEIGH, N.C. — Robert P. Davis has been named marketing director at the PGA Tour's Tournament Play-
Second, the employer should conduct a prompt investigation of all harassment complaints, coupled with immediate and appropriate corrective action to remedy the situation. All this should be documented. If economically feasible, the investigation should be conducted by independent counsel, not company management. This creates more of an air of objectivity in case litigation follows, and information gathered by independent counsel is far less likely to be subject to disclosure than information gathered by management. A company’s business records are usually “discoverable,” i.e., they must be disclosed to a plaintiff’s lawyers; while information gathered by your attorney is usually “privileged,” or secret.

The alleged victim should be interviewed as soon as possible after the incident. The interviewer should take detailed notes. Witnesses should be identified and questioned until the circumstances are sufficiently clear and reasonable conclusions can be drawn. The offender should be given the opportunity to respond promptly. And any remedial action taken should not punish the victim, such as an unwanted transfer or reassignment. The offender should be given appropriate sanctions; a mere request that he/she refrain from such conduct in the future is not enough.

Third, the employer should implement a standardized system to document that it has complied with the law by utilizing appropriate preventive and corrective measures. These should include: (1) written policies on harassment; (2) proof that these policies have been distributed; (3) formal notice of the grievance procedure; (4) written and signed witness statements and interview memos; and (5) a summary statement of the results of the investigation and the remedial action taken. An employer should be able to demonstrate that it has handled all harassment complaints in a systematic and consistent manner.

Unfortunately, discrimination and harassment lawsuits are often used by disgruntled or fired employees for revenge. Such lawsuits can follow the end of an office romance; a dismissal based on poor performance; or because the plaintiff is unusually sensitive. But sometimes the harassment is real and the lawsuit has merit.

Insurance companies are beginning to offer policies to protect businesses from harassment suits. However, coverage is usually limited to the acts of supervisors or co-workers which was not known to, nor condoned by, management. Such insurance is well worth looking into, as it provides legal counsel. The cost to a business of hiring specialized counsel to defend discrimination suits can be very high. And in the American legal system, the defendant pays its own legal costs, even if it wins the suit.

The field of discrimination law is new and evolving rapidly. The Equal Employment Opportunity Commission (EEOC) is always busy writing new regulations which prohibit an ever-wider range of behavior, giving more and more people a basis to sue. Businesses must evolve defenses which will enable them to survive this new and potentially destructive form of risk.
Palmer adds $100m in course acquisition funding

SAN FRANCISCO, Calif. — Arnold Palmer Golf Management LLC has closed on a $100 million acquisition loan facility with Credit Lyonnais - New York Branch, as agent and arranger, and jointly underwritten with Wells Fargo Bank, NA.

This new acquisition line allows the company to add additional courses to its expanding portfolio and continue its growth. Last October, Palmer Golf acquired eight courses around the United States and plans to add another 20 to 30 in 1998. Palmer Golf operates about 30 courses in the United States and Europe.

Pascal Poupelle, executive vice president and head of U.S. investment banking for Credit Lyonnais, said, "In addition to the company's strong management team, we believe Arnold Palmer Golf Management's prospects are further enhanced by their affiliation with Olympus Real Estate Corporation, the real estate investment affiliate of Hicks Must Tate & Furst, whose industry expertise in consolidating industries is world renowned."

According to George Haworth, chief financial officer of Palmer Golf, "We immediately financed six courses through the credit facility and in the future, expect this credit line to support other ventures sponsored by Palmer Golf and other top golf operators."

In other Palmer news, the firm appointed David Baker midwest regional director of business development. Baker, who will also handle the north central United States, comes to Palmer Golf from Keller-Williams, a real estate firm where he served as director of franchise sales and development. Prior to that, Baker was vice president of a 15-state region at Century 21 Real Estate Corp.

Palmer has also added its second franchisee, White Hawk Country Club scheduled to open in late June in Crown Point, Ind. "They've helped us with everything, from the design process right through to course operations," said Jack Slager, vice president of White Hawk Development Corp.

"Palmer helped us find, interview and hire a superintendent; they've also assisted in locating and sizing up candidates for general manager."

Designed by Tim Nugent of Dick Nugent and Associates, White Hawk is the second facility to become a Palmer Golf franchisee.

Nicklaus starts tee time service

CHARLOTTE, N.C.—Ticketmaster Golf, a joint venture of Ticketmaster Group, Inc. and Golden Bear Golf, Inc. have announced agreements to provide advance tee-time sales for 20 Myrtle Beach, S.C. courses.

The agreements are with the Premier Golf Group, which markets a group of leading courses in Myrtle Beach, the initial market targeted by Ticketmaster.

Ticketmaster Golf will use Ticketmaster's proprietary computerized distribution system to sell tee times to golfers by telephone and through the Internet.

The joint venture expects its service to become operational in 1998 for many additional golf courses across the country.

"One of Premier Golf's key goals is to attract new players to the Myrtle Beach market," said Chip Smith, executive director of the Premier Golf Group. "We believe this agreement with Ticketmaster Golf—which will bring their convenient and powerful sales system to our golf courses—greatly enhances our level of services and will appeal to golfers considering our destination."

Golden Bear Golf, Inc. is a diversified, international brand name golf products and services company. Ticketmaster is a major computerized ticketing service, selling nearly 70 million tickets a year through 2,900 retail ticket center outlets, 26 telephone call centers, and an Internet site.

The best ball washer has our name on it and now it has yours.

Order nine or more Standard Golf ball washers and you'll receive FREE one-color laser engraving of your club logo. Head-to-head tests have shown that players prefer the Standard Golf ball washer because the crank action is easy to use, splatter-free and washes four balls at once. You'll appreciate its leak-free durability and easy maintenance. And be sure to compare prices. Standard Golf is still your best ball washer value, and now it's personalized for FREE.

Talk to your Standard Golf distributor today. Or call 1-319-266-2638 for more information.

GOLF COURSE NEWS
Alfonso
Continued from page 47
made to feel as though I am in the way is
Continued from page 47
assure you that when, as a guest,
I am made to feel that way, I have
downright uncomfortable. I can
"Get me out of
only one thought on my mind...
As a golf course professional, it's your
responsibility to make the right choices.
Right for the turf, and for the people
who enjoy it. One way to meet that
responsibility is with Dimension turf herbicide.
Dimension provides season-long
control of crabgrass and over 20 other
tough grasses and weeds, with excellent
safety on established turf. And Dimension
does it without staining, or harming
adjacent ornamentals. That means no
more weed "fringes," because you can
apply Dimension with confidence right up
to the turf's edge, even around walks,
drives, and landscaping.
Dimension's low use rates and
favorable environmental profile mean less
worry. The active ingredient features very
low toxicity to mammals, birds, and
insects. Plus it bonds to soil particles
instead of leaching into groundwater.
Dimension offers the widest
application window—6 weeks more than
other preemergence products. That lets
you delay application for optimum control
of goosegrass and other weeds. And split
applications can stretch control even
further for areas with long growing
seasons. It all adds up to a turf herbicide
that only weeds find hard to live with.
Call 1-800-987-0467 or visit us at
www.dimensionpro.com to learn more.
AGC's Price
Continued from page 47
donations from hole and tee
sponsorships, raffles and auc-
tions, are given directly to the
charity.
Since the Adopt-A-Charity
program’s inception in 1985,
American Golf has raised more
the $14 million for local organi-
izations including MDA, Special
Olympics, the Make-A-Wish
Foundation, Toys for Tots, chil-
dren’s hospitals, March of
Dimes, Boys and Girls Clubs,
Hispanic Scholarship Programs,
senior citizen centers, centers
for abused and neglected chil-
dren, and disabled services. In
1997 alone, the program raised
more than $4 million.
Additionally, American Golf
recently announced an alliance
with MDA in which the company
will host charity golf tourna-
ments at its courses, as well as
offer a rebate program in which
the company will donate a per-
centage of green fees and cart
fees generated through MDA
charity events staged at its
courses.
Vince Alfonso Jr. is a 40-year,
golf-industry veteran, president of
Alfonso Creative Enterprises Inc.,
and owner/VPGA professional at
Kimberling Golf Course near
Branson, Mo. He can be reached
at 417-739-4370.
**HORIZON PROMOTES DILLER**

TEMPE, Ariz.—Tempe-based Horizon, one of the nation's largest suppliers of integrated turf-care and irrigation solutions, has promoted Lee Diller to regional sales manager of the metropolitan Phoenix area. Diller, an employee of Horizon (formerly known as Mesa Sprinkler) for the past 12 years, is now located in his new role. Diller will be responsible for developing new business opportunities as well as supervising customer service and training throughout the Greater Phoenix area. Horizon is a distributor of Rain Bird, Jacobsen, E-Z-Go, Irritrol and Hunter products.

**BOWDEN TO HEAD LASCO PERSONNEL**

BROWNSVILLE, Tenn. — LASCO Fluid Distribution Products has named Rick Bowden its new human resources manager. Bowden has more than 20 years experience in personnel management, employee relations, training and safety with companies such as GW Composites, Emerson Electric Motor Division, General Tire and Rubber Co., and Hall Printing Co. of the Printing Co. He is a graduate of Middle Tennessee State University and holds a bachelor's and master's degrees as well as post-graduate work from the University of Tennessee. Located in Brownsville, LASCO is one of the largest manufacturers of PVC pipe fittings in the United States.

**FACTS FROM ZENECA FAX LINE**

WILMINGTON, Del. — Pest-control and turf-management product information from Zeneca Professional Products is now available by facsimile. Call 1-800-640-2362 toll free 24 hours a day, seven days a week, for quick retrieval of documents on any fax machine. Product information will be promptly sent directly to a fax machine. Customers can receive product labels, Material Safety Data Sheets and Worker Protection Standard requirements for products currently offered by Zeneca Professional Products.

**PRODUCT OF THE MONTH**

**Single-person golf car may help speed up play**

**By John Farrell**

WAUKESHA, Wis. — Fairway Golf Cars, a division of Ortho-Kinetix, Inc., is introducing the Fairway 8000 Single-Rider, a golf cart that allows each golfer to follow his own ball rather than waiting for his riding companion before continuing play.

In development for four years, the Single-Rider features a dual motor drive, a 48-volt power system with transaxle, maintenance-free AGM batteries, and a dynamic braking system which offers smooth deceleration as well as continuous recharging during braking action.

"Twenty years ago, getting on and off a course in four hours was a bad day," said John Perez, director of sales and marketing for Fairway. "Now it's a miracle."

By changing to a single-rider format, the company believes it eliminates the biggest problem ever caused by two-person carts: the wait.

Currently, courses strive — on a very good day — to return players in about 4½ hours, roughly 15 minutes per hole. But that's a lot of work, according to Perez, who says such efforts can mean having to monitor pace of play and using starters to get people off the tee.

"And what has happened is they have to run in 7- or 8-minute tee times. They can't go any shorter because there's a funnel effect," stated Perez.

Continued on page 55

**Toro, Grizzle settle lawsuit**

BLOOMINGTON, Minn. — The Toro Company and Grizzle & Hunter Plastics, Inc. have settled a lawsuit related to irrigation products.

Toro brought suit against former Toro employee Glendale Grizzle and Grizzle & Hunter, a company formed by Glendale Grizzle.

Toro alleged that Grizzle and Grizzle & Hunter used Toro trade secret and proprietary information in its line of irrigation products.

Grizzle and Grizzle & Hunter denied any use of Toro information.

The matter was settled for an undisclosed sum paid by Grizzle & Hunter's insurer, coupled with an agreement by Grizzle and Grizzle & Hunter to maintain the confidentiality of information Toro claims is trade secret or proprietary.

The settlement does not require Grizzle & Hunter to cease the manufacture or the sale of its conversion assembly.

The case had been set for trial in March 1998 before a federal court in Los Angeles.

Continued on page 57

**King, Ideal reach patent deal**

ST. CHARLES, Mo. — Herb King, president of King Safety Products of St. Charles, and David Juday, chairman of IDEAL Industries, Inc. of Sycamore, III., have reached agreement to settle the patent infringement lawsuit filed by King against IDEAL in February 1996.

While details of the final agreement are confidential, King and IDEAL will each manufacture and sell several sealant-filled connector products under King's U.S. Patent B1 5,113,637 and any related North American patents.

The 637 patent remains in force, and relates to twist-on electrical connectors prefilled with non-hardening sealants. Such connectors are suitable for a variety of direct burial; wet, corrosive and aluminum to copper applications.

Both Herb King and David Juday are pleased with the amicable settlement and look forward to working together for broader application and increased acceptance of prefilled twist-on connectors in a variety of markets.
Toro unveils latest triplex trim mower

BLOOMINGTON, Minn. — The Toro Co. introduced an innovative new trim mower during the recent Golf Course Superintendents Association of America International Conference and Show. The new Reelmaster triplex trim mower has a comfortable design, Toro-patented traction system and shifting reels that are significant improvements over many reel-trim mowers.

"With this product we want to offer superintendents a next generation of triplex trim mowers," said John Wright, Toro's golf marketing manager for equipment. "It is a product that performs better in the grass, is easier to operate and is also easier to service. By putting the operator in front and the engine in the rear, we significantly improved operator comfort and ease of use, while dramatically improving service access."

To improve trim mower performance while cutting grass, Toro has developed two innovative features. The first innovation is Toro's patented Series/Parallel three-wheel-drive traction system, which provides power to at least two wheels at all times. "The Series/Parallel system provides superior traction on hillsides and in wet turf, improving climbing capabilities and minimizing the turf damage that occurs when a tire spins," Wright said.

The second innovation is the ability to shift all three cutting units side-to-side, a total of 24 inches, while cutting grass. "For many years, customers have told us they needed more overhang on their trim mowers for mowing around bunkers and other obstacles," Wright said. "The ability to shift the reels greatly increases overhang on each side, and it allows the operator to shift the tire tracks within the cut swath."

For more information, contact Toro at 612-888-8801.

Ransomes adds to Greensplex II

LINCOLN, Neb. — The new Ransomes Greensplex II triplex greens mower contains many design features for enhanced performance, productivity and ease of service. The mower is the newest version of the Ransomes Greensplex 160.

A patented center reel conveniently pivots out from under the Greensplex II for easy servicing. The center reel also has an automatic time delay to prevent accidental cutting into the collar of the green. Other major product enhancements to the Greensplex II include:

- A patented stabilizer linkage leveling the cutting units parallel to the ground during raising and lowering to help ensure an even cut and smooth finish over undulating terrain. Additionally, it eliminates bouncing of the cutting heads during transport.
- "Tandem" hydrostatic and reel pumps are directly driven from the engine. The reliable new pumps eliminate the need for belts and pulleys, greatly diminishing noise, vibration and maintenance.
- Two new engine choices, both of which help reduce the overall weight of the mower, are available: an 18.8-hp, liquid-cooled engine, or a 18.8-hp diesel Kubota D722, liquid-cooled engine. Both engine models meet CARB regulations for emissions.
- Dependable electric solenoid valves in the hydraulic system eliminate the need to lubricate linkages. The valves also reduce the number of parts and help cut down on the amount of time normally spent servicing a hydraulic system.
- The 22-inch steerable floating cutting heads provide a total cutting width of 62 inches. The interchangeable reels, which are available in seven-, nine- or 11-blade configurations, can cut at heights from 0.1-inch up to 0.62-inch — or to 0.078-inch with an optional tournament bedknife. Mowing speed can be adjusted to ensure a consistent clip rate and cutting height.

For more information contact Ransomes America Corp., P.O. Box 82409, Lincoln, NE 68501; telephone 800-228-4444.
Bacteria system treats ponds

NORTHBROOK, Ill. — The Cycle System is a new concept in pond management, utilizing super-concentrated formulations of enzymes and bacteria to correct specific aquatic problems. The Cycle System was scientifically formulated to remove algae-supporting nutrients and excessive sludge buildup. This easy-to-use system packs a powerful one-two punch consisting of two separate, but complementary, products: Spectrum and Devour. The Cycle System is a cost-effective biological tool for long-term improvements in lakes and ponds.

Both Spectrum and Devour contain specialized bacterial strains plus prepackaged biostimulants that work as power packs to enhance enzyme growth and cell reproduction. Together these products provide a pond management program using 100 percent natural ingredients that require no special handling, storage or use permits.

Spectrum pre-emptively digests excess nitrogen and phosphorus in the water column, quickly eliminating the algae’s primary food source. Dead algae from pesticide treatments, fish and fowl waste and fallen leaves are all sources of sludge accumulation on pond and lake bottoms. Left untreated, sludge will re-release nitrogen and phosphorus into the water, feeding the next algae bloom. This also can cause offensive hydrogen sulfide odors and murky water. Devour accelerates the decomposition of sludge and other partially decomposed material by consuming organic compounds in the sludge layer.

Spectrum and Devour are packaged in 1/2-pound, water-soluble packets and are used at rates of 3 to 6 pounds per surface acre initially, followed by a maintenance treatment or 1.5 to 2 pounds per surface acre every two weeks.

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Mowers
Continued from page 1

9016 Turbo was to make routine maintenance and service as easy as possible," said Bill Potter, Jacobsen product manager. In meeting that goal, the mower is constructed with no pulleys, idlers or belts, and uses all-hydraulic drive to the three cutting decks to assure efficient, reliable operation requiring less-frequent service.

Potter added that the product meets the need for peak mowing productivity at golf courses, parks, municipal grounds and sports fields. Originally designed to meet the needs of European sports fields and golf courses requiring a high-precision, multi-purpose mowing machine, Toro's Grounds Pro (TM) 2000 is expected to fit nicely into U.S. markets as well.

Featuring easy-to-reach controls and rear steering to ensure maximum maneuverability, the Grounds Pro utilizes reel cutting units to provide superior quality of cut. Available with either a five-blade fixed-head or an eight-blade floating head, the cutting units raise hydraulically to accommodate tight spaces and narrow gates.

In addition, the Grounds Pro Quick Link (TM) A-frame attachment system allows for a wide variety of attachments, converting the machine from a precision reel mower to a rotary broom, dump cart, fertilizer spreader, sprayer, debris blower, or snow plow.

"We've touted it as a total grounds maintenance system for across all those that have multiple kinds of turf to maintain," said Jody Walsh, public relations spokesperson at Toro. "If you're a golf course that really needs this kind of a utility vehicle, it's a nice fit."

Moving in a different direction, Ransomes has delivered the industry's first electric triplex greens mower, the E-Plex II.

According to Peter Whurr, director of marketing at Ransomes, the company has taken the first-generation E-Plex machine and enhanced it per users' requests, with refinements such as an improved green speed. Now, for instance, regardless of whether it's going uphill or down, the mower maintains the same speed, producing a uniform clip rate.

The company also reports having improved operational characteristics of the product, such as making it easier to steer and placing the whole tractor on a true 48-volt system, so the battery maintains full discharge across all cells.

Of course, because it's battery-powered, it's also environmentally friendly. No pollution into the atmosphere, no noise, and none of the issues normally associated with greens triplex mowing, like hydraulic oil leaks or extensive engine maintenance.

"And because there's no noise coming from it, if you're in a noise-sensitive area, you can still get out early in the morning to cut greens without disturbance to any residents in the area," said Whurr. "Now, if you're able to do that, the course can open earlier and you can get more rounds of golf into the course earlier on."

John Deere's 2500 Triplex Greens Mower was also introduced in February. Primarily intended to mow golf course greens, the machine also mows tees, approaches, and some small fairways.

"What we've tried to do is design the machine around the operator so it's as easy as possible to operate," stated Nolan Meggers, John Deere product manager.

"This way, they can make nice straight lines on the green, and it does a very effective job of giving a good, quality cut."

Meggers added that the company also tried to keep serviceability at the forefront of the design so that whether a technician is performing routine maintenance or simply performing a daily check, "it's very easy to do."
Field burning

covered Interstate 5 south of Salem," said David Nelson, executive secretary of the Oregon Seed Council. "A chain collision resulting in several deaths and injuries mobilized the industry, legislators, and the public to negotiate a phase-down of field-burning."

Before 1991, growers burned up to 250,000 acres per season in the valley. The allowable burned acreage has decreased incrementally since that time and will be limited to 40,000 acres, plus up to 25,000 acres of steep terrain as identified by the Oregon director of agriculture.

Grass seed farmers in eastern Oregon, Washington and Idaho may face similar restrictions in the future. At first, growers worried that instead of diseases and weeds, their businesses would go up in smoke.

"The industry was very uncertain it would be able to make the change," Nelson said.

Alderman and other ARS, university, state and private researchers are helping grass growers produce a viable seed crop.

"Now there's a feeling of confidence that we've solved enough of the problems to produce the same quality of grass seed without burning all our fields," Nelson said. "ARS has greatly helped the industry make that transition."

But the challenges are ongoing: the return of diseases, contamination of the seed crop by weeds, and a million tons of straw left each year after harvest.

ARS scientists are working hard on all three fronts. Alderman has monitored fields since 1988 to detect flare-ups of blind seed and ergot, another serious fungal disease that also destroys flowers and seeds.

"Early detection and treatment are very important to prevent the sudden increase and spread of diseases," he noted. No chemical treatments effectively control these diseases, but Alderman said specific plowing and planting techniques should keep them largely at bay without routine burning.

Two new lines of tall fescue will help growers combat another disease, stem rust. This rust attacks the stems and leaves, rather than the flowers, and can reduce seed yields by as much as 80 percent, said ARS plant pathologist Ronald E. Welty, who is retired, developed the fescue lines.

"Increasing the number of plants in a variety that are resistant to stem rust can stop or slow development of a disease epidemic," says Barker.

Managing weeds, certifying seed

Unlike most crops, grass is often its own worst weed. "Grass plants are not neat and tidy like wheat or corn," said ARS agronomist George W. Mueller-Warrant. "Tillers and seeds on the same plant mature at different times, and there's no way the grower can get all the seed to the same ripeness simultaneously."

Growers time their harvest to get the best yield. But previously ripened seed heads that have shattered and tiny seeds that fall through the combine can mean that up to one-fourth of the total seed production lands back on the field.

"Many of the grass seed crops are perennial, and anything that germinates among the established plants is undesirable," Mueller-Warrant said.

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Patents Pending*
Field burning
Continued from previous page

The reasons are genetic.

About half of Oregon’s seed is
produced under a certification
process managed by Oregon
State University.

To participate, growers submit requests for each field they want certified. Then the
Certification Service reviews crop production records and
conducts a series of field and
laboratory evaluations. If the
field meets the review criteria, it can be certified.

“The industry has more than
1,250 varieties of grass seed
eligible for certification, and
about half of those were in
production in 1996,” said
Ronald Cook, head of the
Oregon Seed Certification
Service. “Our job is to ensure
that the customers are getting
the variety and product
performance that they are
expecting.”

Growers, in turn, can command
higher prices for their seed and
reach expanded markets by
growing certified seed.

One obstacle to certification
is genetic contamination.

If a seed falls off the grass
plant and germinates, it is the
progeny of the original plant.

“These ‘children’ are weeds,”
said geneticist Barker. He
notes that grass is wind-
pollinated, so the parent and
seedling are easily crossed.

“This crossing may cause
unwanted genetic shifts.”
Cook said that in most crops,
more than 1 or 2 percent
genetic contamination can
jeopardize certification. Barker
is working with Cook to
determine if these standards
make sense from a genetic
standpoint. Using molecular
DNA markers, Barker is
examining how much genetic
shift is actually taking place.

But at least some shift is
likely over time, so weed
control will always be neces-
sary.

“At the same time as the
growers lost field-burning,
they lost several of the
chemicals they were using on
weeds,” said Mueller-Warrant.
He’s studied over 20 alterna-
tives to the herbicides that
were not reregistered by the
U.S. Environmental Protection
Agency or that were taken out
of production because of
environmental concerns.

His tests show three as the
most promising: oxyfluorfen,
metolachlor, and
pendimethalin. The first
received an emergency
registration under the
tradename Dual in 1989.
Mueller-Warrant said that
dwelling best controls a large
flush of weeds germinating
after heavy rains.

Metolachlor, known under
the tradename Dual, was
registered last year. The last
and newest will be registered
as Prowl.

“Pendimethalin will probably
be the most useful for the
grower. In field tests, it
provided close to 100 percent
control of seedlings with little
crop injury,” Mueller-Warrant
said.

Biological control also looks
promising for controlling
annual bluegrass weeds in
ryegrass and tall fescue crops
and in cheatgrass or downy
brome, a noncrop grassy weed
infesting Kentucky bluegrass
stands.

ARS soil scientist Lloyd F.
Elliott and colleagues in
Corvallis and Pullman, Wash.,
have discovered weed-killing
bacteria that live naturally
among the plant roots.

“In laboratory and growth-
chamber tests, the bacteria
provided virtually 100-percent
control of the undesirable
species,” Elliott says. He’s
ready to test six of the bacteria
in the field.

What to do with residue
While the burning phaseout
increased weed and disease
problems, it also gave growers
an entirely new—and perhaps
the toughest—challenge:
Managing 1 million tons of
growth annually. After
harvest, a blanket of plant
stalks, or straw, covers the
field. Burning eliminated the
straw and stimulated regrowth

Continued on next page
Continued from page 10
researching various aspects of grasses specially selected for use on golf course putting greens. Additionally, I have attended more than 100 professional tour events, caddied on the pro tour in the late 1960s, and worked on maintenance staffs in preparation for major championships.

Frankly, what you hear on TV about "up grain," "down grain," "grass growing east to west," "grass growing towards India," and other statements are oversimplified and, in most cases, misleading. What TV watchers need is more "up hill," "down hill," "side hill," and less "grass," "grain," "grain" from the commentators.

Let's look at the facts about how turfgrasses grow. Some people may have noticed on putting greens, especially on older courses, distinct patches of grass, most ranging in size from 3 to 5 feet in diameter, displaying different colors and textures. These segregate patches of grass may produce an orientation of leaves that we call "grain." This "grain" may influence the direction of a putt, especially as the ball slows down near the cup. However, this "grain" most typically grows in random directions when not unduly influenced by a steep slope, water drainage patterns, a strong wind blowing constantly in one direction, or continued mowing in the same direction.

The main point to be made is that on relatively flat putting surfaces on older golf courses, without the aforementioned influences, grasses typically grow in random directions. TV golf commentators use the word "grain" for all descriptions of how the ball may be influenced. They do not relate that an older putting green is typically made up of many patches of grass, possibly hundreds on one green, that may show some of this "grain," growing in small patches, and growing in all possible random directions. TV commentators do not factor that golf course superintendents routinely use brushes, and other devices on putting greens designed to stand leaf blades and stems upright so that this random grain can be minimized or totally eliminated. It should be pointed out that the myth about "grain" constantly talked about by golf course superintendents, and they all agree that grain typically is found growing in random directions on putting greens.

Additionally, with more than 400 newly constructed golf courses being built in the United States each year, most new courses in cool-season climates are selecting the newly bred bentgrasses for putting greens. This "state-of-the-art" creeping bentgrass was developed to grow upright and does not produce grain. When the winter pro tour hits Florida in February and March, golf courses may dominate Bermuda grass putting greens that are typically winter overseeded using a grass called poa trivialis.

My advice to the TV commentators is to find a better word for whatever they are trying to express, like "up hill," or "down hill." This would be more correct in many situations and would be easier to listen to. Thank you.

Richard Hurley, Ph.D.
East Stroudsburg, PA

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East Stroudsburg, PA

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1-4 — Georgia GCSA Summer Conference in Augusta. Contact Karen White at 706-769-4076.

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AD INDEX
121 American Cyanamid 22
149 American Cyanamid* 58
118 The Andersons 24
153 AquaMaster 60
131 Atratus 21
126 Bayer Corporation 32-33
160 Bearcom 61
167 BirdX 62
110 Browsers Turf Equip 16
135 Club Car 43
161 Continental Bridge 61
123 Crane Plastics 30
113 Dow AgroSciences 18-19
151 E-Z-GO 63
164 Eagle Golf & Landscape Products 61
170 EzeTurf, Inc. 62
165 Enwind Structures 62
172 Excel Bridge Mfg. 62
119 Flowtrol PSI 25
139 FMAC Golf Finance Group 48
102 Fore Par 3
163 Formost Construction Co. 61
172 GCSince/Golf Course Solutions 62
174 Grass Craft 62
154 Great Lakes Containment 50
166 Harrington/Harco Corporation 61
1 — Fisk Biosciences Corp. 24
152 Jacobsen 64
157 Jesco Products/Pluthigh 60
101 John Deere 4-5
158 JFF Distributors 60
165 Kirby Markers 61
157 Kubota 45
124 Lascive, Inc. 31
115 Lebanon Turf Products 28
145 Lebanon Turf Products 54
162 Master of the Links 61
— NOVARTIS 11
— NOVARTIS 12-13
132 Nutramax 40
146 Oregon Pine Fessian 55
112 Par Aide 17
140 Parlsee 60
136 PCI/Gordon Corporation 44
159 Precision Small Engine 60
171 Precision Small Engine 62
129 Premier Environmental Products 37
156 Quail Valley Farms 60
114 Ramsomes, Ramsomes Corp. 38-39
134 Regal Chemical 42
141 Regal Chemical 49
120 Rhone-Poulenc* 25-27
— RISE* 25-27
111 RJ Advantage 16
128 Robin & Haas 36
144 Robin & Haas 52
172 Robin & Haas 16
147 Rohmil LLC* 56
132 Roots, Inc. 50
169 Ryan Inc. Central 62
122 Seed Research of Oregon 23
148 Smithco 57
143 Standard Golf 51
155 Steadfast Bridge Co. 60
101 Tee-2-Green 2
127 Terra Industries 34
128 Terra Industries 20
105 Toro Braun 8
117 Turfco, Inc. 29
106 United Horticultural Supply 9
133 West Coast Turf 41
166 Wilbur-Ellis 29
125 York Bridge Concepts 31
162 Zeneca Professional Products 20
134 Zeneca Professional Products 67
138 Zeneca Professional Products 46
*Appears in regional edition.
Field burning
Continued from page 58 of next year’s crop.

Unless the straw is removed from the crowns of perennial grass plants, the crowns don’t receive enough light, Elliott says. Straw left on the field also limits herbicide effectiveness.

About a third of the straw can be sold for animal feed and bedding, but the supply far exceeds demand.

Elliott and ARS agricultural engineer Donald B. Churchill proved for the first time that low-input, on-farm composting of the high-carbon straw was possible. Their method involved gathering the straw in large windrows alongside the field and turning it three or four times with a tractor-mounted front-end loader.

“Before our experiments, it was believed that you would have to add nitrogen before the straw would decompose. There was also concern that the compost wouldn’t reach high enough temperatures to kill weed seeds and inhibit diseases,” Elliott notes.

Growers discovered that they could also leave the straw on the field to decompose in place, if they chopped it fine enough that the grass crowns weren’t covered. Another ARS research project addresses the variation in crop needs and environmental conditions across the Willamette Valley and drier grass-growing regions of the Pacific Northwest.

“The southern part of the valley has poorly drained soils that are very wet in winter,” says ARS agronomist Jeffrey J. Steiner. He’s coordinating a long-term sustainable cropping systems program with scientists from ARS, Oregon State University, and the USDA’s Natural Resources Conservation Service; extension specialists; and growers.

The southern valley supplies most of the annual and perennial ryegrass seed. The moderately drained soils to the north allow more crop diversity, and growers farm tall fescue seed as a major crop. Well-drained hilly areas produce fine fescue seeds, but these soils erode easily if not managed properly.

In each of the three regions, Steiner and colleagues are looking at the best methods for managing straw (cutting and leaving on the field versus removing the straw), rotating crops (grass seed continuously or rotating grass with legume seed crops and wheat or meadowfoam), and planting methods (conventional or no-till).

“One of the main problems is how to rapidly establish each crop. Otherwise a grower can go as many as 20 months in the rotation sequence without an economic return,” he says.

The first complete crop rotation will end this year. But the study has already provided valuable information for growers.

Stephen M. Griffith, an ARS plant physiologist, also looks at nitrogen use in the seed crops. He and others have found that as long as chopped-up straw residue doesn’t cover the growing crowns of the grass plants, it may help the crop in the long run.

“Over time, the residues contribute nitrogen to the soils,” Griffith says. “We also have evidence that the microbial community and soil quality are improving underneath the straw,” he adds.

Kathryn Barry Stelless is a public affairs specialist for ARS information in Albany, Calif. (541) 750-8722.
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