

GOLF COURSE NEWS

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Richard McNabb (right) is the latest to earn the prestigious Master Greenkeeper status. For story, see page 15.

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GRADUATION REPORT

Trained irrigation techs, mechanics in demand

By PETER BLAIS

Shovel jockey. Wrench turner.

Not particularly flattering titles for the people who fill the roles of irrigation technician and turf equipment manager. But if educators, course managers and others have their way, *shovel jockey* and *wrench turner* could go the way of *greenkeeper* in the near future.

With superintendents increasingly strapped to their desks by administrative duties, the cry is going out for college-trained irrigation and maintenance equipment specialists who can work with today's high-tech watering and turf maintenance equipment.

"I'd kill for a formally trained irrigation technician," said Ray Davies, head superintendent at Merced (Calif.) Golf & Country Club. "Irrigation is critical. When you look at a well-manicured golf course, it

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RTC's Kiawah auction scheduled for May 19

By PETER BLAIS

CHARLESTON, S.C. — The prestigious Ocean Course at Kiawah Island is scheduled to go back on the auction block May 19.

A dozen parties interested in becoming the new owners of the Pete Dye-designed layout and site of the 1991 Ryder Cup attended a bidder's conference here in early April. Among the potential bidders were course owners, management companies, local golf industry veterans and individuals with no ties to the golf business.

"Those who haven't been in the golf business before may see this as a chance to get into the industry in a big way," said Tom Harris, senior vice president of golf properties with CB Commercial, which is marketing the property through its 150 worldwide offices. "Those who weren't in the business seemed well qualified, financially, to enter it."

Financial capability is one of the requirements the winning bidder must demonstrate before the

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A PEARL IN THE EAST

Dragon Pearl Golf Club, located outside Bangkok, Thailand, is one of the courses making a name for designer Jim Engh, who cut his teeth with IMG and Cotton Pennink. For more on a member of golf architecture's new breed, see page 45.

Supers turn OSHA regs to their budgetary advantage

By MARK LESLIE

While state and federal legislators struggle with weighing the costs and benefits before passing new laws, golf course superintendents may actually save their clubs money following suggestions from safety experts like Occu-

pational Safety and Health Act (OSHA) personnel.

By investing about \$1,500 a year for four or five years, his former club saved \$30,000 to \$40,000 a year in insurance costs, said Ray Davies, now superintendent at Lake Merced (Calif.) Golf & Country Club.

Referring to his old employer, Virginia Country Club in Huntington Beach, Calif., Davies said: "We didn't have a negative attitude. Just the opposite. From my viewpoint, it saves you money in the long run."

Complying with OSHA standards is "something

Continued on page 30



Mike Robinson

Oregon ryegrass growers organize bargaining group


By HAL PHILLIPS

ALBANY, Ore. — Here in the Willamette Valley, the microeconomics of low carry-over inventory and a 1995 bumper crop have taken a back seat to the macroeconomics of floor prices, overproduction and their affects on the old standby, supply and demand. The result will likely be higher ryegrass prices this fall — maybe as much as 10 cents per pound, according to industry experts.

One reason? Seed growers here have organized the Perennial Ryegrass Bargaining Association (PRBA), which instituted a minimum price of 45 cents a pound in response to the gradual decline in perennial ryegrass prices. The PRBA has reserved the right to raise or lower that figure come August.

Seed dealers, those firms that market seed to golf course superintendents, view this development with mixed feelings. In time of poor supply, floor prices have little relevance. But in the long term, many

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Number 18 Penncross green, Troon North, Scottsdale, AZ

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NEWS IN BRIEF

BROOKTRAILS, Calif. — The saga of the Brooktrails redwoods appears to be over. And some trees won't be happy. The board of directors at the nine-hole Brooktrails Golf Course recently voted 3-2 to cut down a number of redwood trees to save some dying greens and fairways. There are nearly 1,000 trees in the playing area of the northern California course. Arborist John Phillips recommended removing the trees because they keep sunlight from the playing areas and cause greens and fairways to die of excessive moisture. Cutting will begin in the fall.

EDINBURG, Texas — The 18-hole Monte Cristo Golf Course has reopened with a new name, the Palacio Real Golf Course. PalBros Inc. of Edinburg, a city of about 30,000 in southern Texas just a few miles above the border with Mexico, bought the former Monte Cristo in July 1994.

GREENVILLE, S.C. — A proposed lighted, 18-hole, par-3 course near Greenville Downtown Airport has led about 70 neighboring homeowners to sign a petition opposing the project. Residents are concerned with the effect of lights and increased traffic in their secluded neighborhood. The developer and officials of the Greenville Airport Commission, which owns the 29-acre tract, said the \$1 million course would disturb residents less than any other development that can be put on the land, which is restrictively zoned because it is so near the airport.

SHERBURNE, Vt. — Construction of Vermont's first municipal 18-hole golf course here near the Killington ski area is running ahead of schedule. The \$2.8 million Green Mountain National Golf Course could be open by mid-June 1996. J. J. McDonald Inc. of Lyndon Center is the project's general contractor. Gene Bates is the designer.



The 5th hole at Rick Smith's highly touted, debut design at The Treetops Resort in Gaylord, Mich.

Smith: Teaching pro-turned-designer

He's known as golf's Renaissance Man these days. Rick Smith, 37, is perhaps best known as a swing guru for some of the PGA Tour's top players — Jack Nicklaus, Lee Janzen, Billy Andrade and Rocco Mediate. He also instructs amateur golfers as director of golf at Treetops resort in Gaylord, Mich., hosts the Rick Smith Signature TV series on ESPN and writes instructional pieces for GOLF Magazine. But lately Smith has received more acclaim for his golf course design work. Among his best-known layouts are the Rick Smith Signature Course and Threetops par-3 design at the Gaylord facility. The Signature layout was named Best New Course of the Year by Michigan Golfer and Debut Course of the Year by Golfweek. He is currently working on an 18-hole walking course at Treetops and the golf-only Wuskowhan Player's Club in Holland, Mich., both of which are scheduled to open in June 1996. Associate Editor Peter Blais caught up with him shortly after Smith's return from the Masters.

Golf Course News: When did you first think about becoming a course architect?

Rick Smith: When I was a kid playing



golf in national junior tournaments, I guess.

GCN: How did you prepare for the job?

RS: I was the golf pro here when Robert Trent Jones Sr. did the first course. I was one of the people who recommended Tom Fazio when we built the second. I learned a lot about the technical side of design from them. I also got to know Nicklaus when he was building a course down the road at Grand Traverse. During the past seven years, I've gotten to travel and study some of the great courses in the world.

GCN: How did your teaching background help your design work?

RS: I am a very visual teacher. I like to build a golf swing from nothing into what I should be seeing. The creative process

Continued on page 50

Name change reflects broader Audubon effort

By MARK LESLIE

SELKIRK N.Y. — The Audubon Society of New York, which has pioneered wildlife and ecological preservation efforts at golf course facilities in North America and abroad, is breaking off those programs that go beyond its borders to reflect their international umbrella.

New York Audubon President Ron Dodson said the society has created the self-standing Audubon International Center for Sustainable Resource Management.

The move was made, Dodson said, "because of the rapid growth we've seen, and the interest in our program well beyond the borders of New York State. We have more members in Florida, Michigan and other states than in New York... For instance, the 22 golf courses involved in the Signature Sanctuary System are all outside New York State, and the more than 1,400 that belong to the Cooperative Sanctuary System are all over the country."

"Essentially, New York Audubon will take over the role of running Audubon programs within the state," Dodson added. "Audubon International will take over those activities that go beyond the borders."

The organization's mission statement, which is being written, will focus on research and development of printed and educational materials, he added. "Essentially, it will become the think tank or research arm of the Audubon Cooperative Sanctuary System," Dodson said. "It will look at issues from emerging technologies to natural resource management, to position ourselves to be the thinkers and

Continued on page 44

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Colorado Springs golf pro cleared of vandalism charge

COLORADO SPRINGS, Colo. — For the second time in three months, assistant golf pro Chris Pratz has been cleared of charges of attempted malicious mischief for spreading baking soda on a green at the city's Patty Jewett Golf Course and killing the grass.

Pratz, 27, had told detectives, reporters and others that on Aug. 30, 1993, he poured baking soda on one of the greens at the golf course. City officials have said there was damage on three different greens which cost about \$3,000 to repair.

But 4th Judicial District Judge Donald Campbell ordered the charges dropped because of a lack of evidence. Campbell said the damage to the greens could have been caused naturally by poor-quality irrigation water and existing soil conditions. Police, including a seasoned homicide detective who was assigned to the case, also had no evidence that Pratz had poured baking soda on more than one green.

The charges against Pratz were part of an ongoing storm of criticism and controversy about playing conditions at the city course. Several greens were either dead or dying on the course last spring and golfers accused the city of mismanagement and incompetence. The city, irate over Pratz's initial admission that he had tried to damage at least

one green and frustrated with the condition of the course, has said it will pursue the matter in criminal or civil court.

Paul Butcher, city parks and recreation director, said the damaged greens — which led to golfers going elsewhere — caused losses "in the tens of thousands of dollars." About 187,000 rounds are played on the course annually generating \$1.2 million in revenue.

'Polar' Bear eyes project in Alaskan capital

JUNEAU, Alaska — Jack Nicklaus could be mixing golf course design and salmon fishing very soon.

The Nicklaus Design group's proposal for an 18-hole golf course and adjacent residential development has been judged the frontrunner for municipal land on North Douglas.

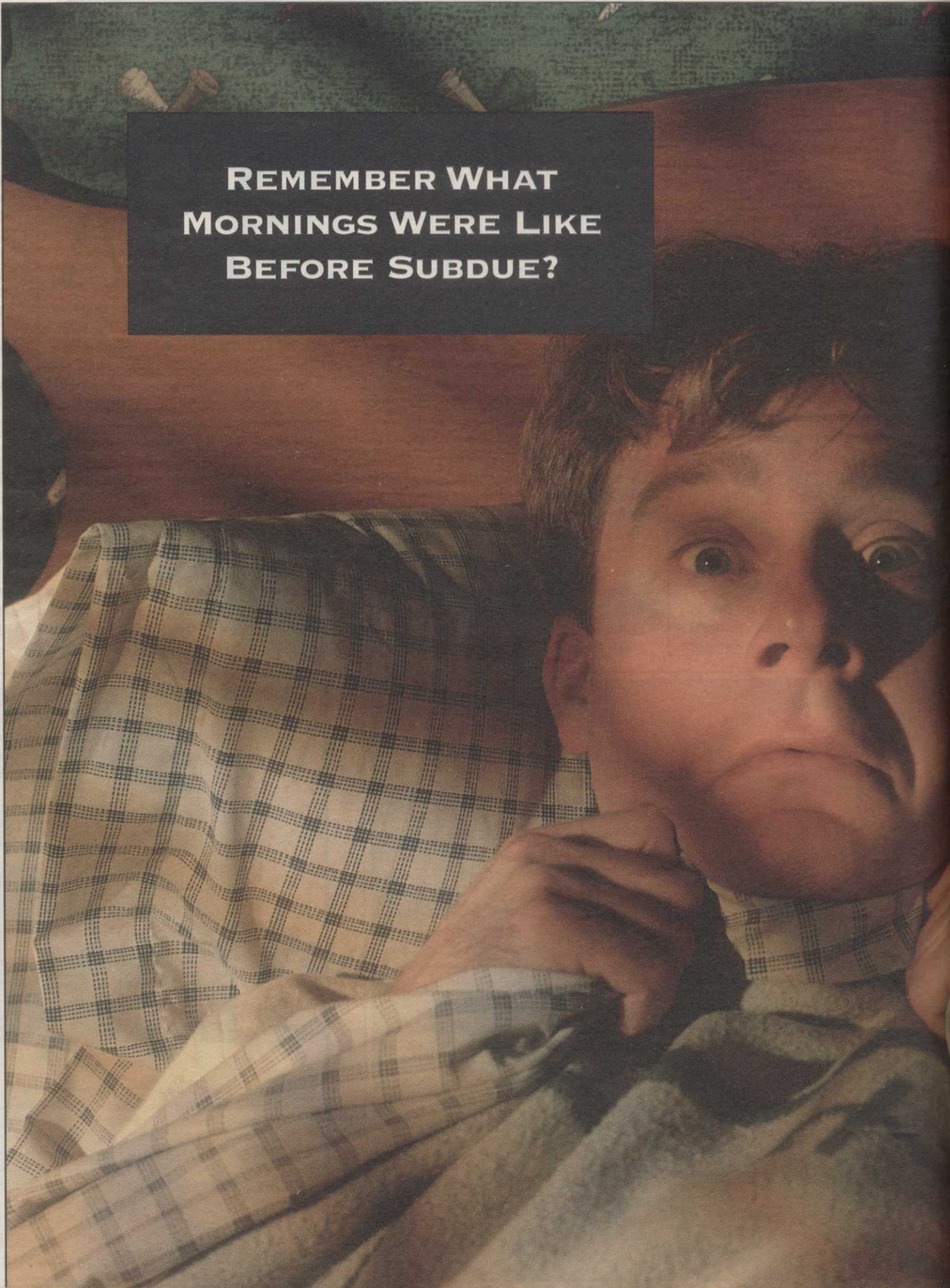
City staff has recommended selling the land to developer Richard Holden. Holden and his partners in Waterfront Park Hotel Corp. have offered a minimum of \$2.3 million for 320 acres of land and the timber on it. Holden said he has secured \$8.5 million in financing for the land

and development of the Eagle Tree Golf Course and a 4,000-square-foot log clubhouse.

The golf course would be built in two phases, with the first nine holes available for play in early 1996 and the second nine holes ready for spring 1997. The proposed 74 housing units would be built over a three-year period.

Nicklaus is interested in designing and building the golf course, according to Timothy Kenny, vice president for the North Palm Beach, Fla.-based company.

The Juneau project would be the northernmost Nicklaus design.



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Court requires env't study for Calif. course

KNIGHTS FERRY, Calif. — In a closely watched case concerning land-use laws for farm land, an appellate court ruled that an environmental impact study is required for any possible golf course and country club development on the Willms Ranch.

The Willms family wants to develop a semi-private golf course and country club on a 2,500-acre grazing ranch it has owned since 1840.

The appellate court's decision was prompted by a lawsuit filed

by the Stanislaus Audubon Society. The Audubon Society challenged the county's 1992 decision to waive an environmental impact report. Stanislaus County Superior Court Judge Al Giorami then upheld the county's decision in February 1993, after which Audubon filed an appeal.

In ruling that an environmental study was necessary, the court said the proposed golf club might have a significant adverse effect on the surrounding area — including the prospect of at-

tracting housing development. The land in question is also subject to the Williamson Act, a 1965 state law that gives tax breaks to farmers who promise to keep their land in agricultural production for 10 years.

One of the concerns of the Audubon Society is that if a golf and country club are built, the family could allow the surrounding Williamson Act land contracts to expire and thereby set up the possibility of rezoning and residential development.

Seattle golf park contains Griffey Jr.

SEATTLE, Wash. — The new Golf Park in Kent may just be one of the few parks around that can contain baseball All-Star Ken Griffey Jr., of the Seattle Mariners.

Griffey is apparently something of a regular at the double-deck, 90-stall driving range that opened in February. So far, he's yet to crack a golf ball over Golf Park's farthest fence, which is 240 yards away (720 feet in baseball di-

mensions) and 115 feet high (that's just about three times as high as Fenway Park's trademark Green Monster).

Golf Park is proving to be a hit with Seattle golfers. The facility features a carpeted landing area with six different flagstick targets, snack bar, pro shop, meeting room and lesson area with the option of videotaping. Golfers can also use a self-service, split-screen video.

Leslie fund to benefit Cleary worker's family

The Golf Course Superintendents Association of New Jersey (GCSANJ) and W.A. Cleary Chemical Corp. have established a scholarship fund for the two daughters surviving Robert Leslie, who was killed March 21 in a Montclair, N.J., post office shooting.

Leslie was a popular GCSANJ member and Cleary technical sales representative for New England, New Jersey and New York. He is survived by his wife Kathy and daughters Jennifer, 3, and Christine, 10 months.

"Many of our members have asked the board [of directors] to find a suitable way to honor Bob's memory, to support his family in this time of grief and uncertainty, and to provide a show of sympathy and financial support for his children," wrote GCSANJ President Paul Powondra.

The GCSANJ officer said the fund will help provide for the college education of the Leslie children.

Those wishing to contribute may do so by writing to: GCSANJ Bob Leslie Fund, c/o GCSANJ, 66 Morris Ave., Suite 2A, Springfield, N.J. 07081.

Golfers finance Calif. expansion

VISALIA, Calif. — An ongoing \$2.27 million nine-hole expansion at Valley Oaks Golf Course is being funded completely by those who use it — the golfers.

Dean Glass, a volunteer on the city's golf committee that has been an advisory group for the long-planned expansion, said increased green fees over the years have allowed the course expansion without the need for city funds.

The green fees covered land acquisition for the expansion and will pay off a \$3 million bond that the city will issue to build the new nine holes and remodel the clubhouse to include a restaurant and walk-up snack window. Michael Poellot was the course architect for the expansion.

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CIRCLE #104

Mass. group handed reins at Ft. Devens track

HARVARD, Mass. — Despite a Pentagon shutdown and prison construction project scheduled for part of the course, a reformed nine-hole version of the Fort Devens golf course is open under new management — Devens Golf Course Limited Partnership, a group of 10 investors led by accountant David Poutry.

The transition is significant because the golf course has become the first visible for-profit business at Devens since the Pentagon announced the base-closing in mid-1991. The local partnership was one of three entities vying for the management contract with the Massa-

chusetts Government Land Bank, the state agency leading base development projects.

The course will be halved to nine holes next season because the Federal Bureau of Prisons bought a 240-acre parcel in Harvard for a planned medical complex and part of that parcel covered nine holes. Because of the prison complex, the current clubhouse will also be razed. A former mess hall will be renovated to be used as a clubhouse.

Base planners hope to build nine new holes to restore the course to an 18-hole layout within two years.

Renovations underway at Ill. links

STERLING, Ill. — The rejuvenation of the former 18-hole Emerald Hill Golf Club is continuing under the guidance of the Sterling Park District.

Last year, the district decided to buy the badly deteriorated Emerald Hill from owners Bob and Bonnie Collins. Emerald Hill was once a hub of activity in the 15,000-population city with bowling alleys, dinner theatre, swimming pool, banquet facilities, softball diamond, golf course and game room.

In the past 12 months the site —

now known as the Emerald Hill Golf and Learning Center — has undergone dramatic improvements: 22 new bunkers and computerized irrigation system on the golf course, new clubhouse with a dining room and pro shop, and a new driving range.

Officials expect about 25,000 to 27,000 rounds of golf this year, which would be ahead of expected projections made during the sale. The park district also plans to launch a first-ever junior golf program through school and after-school programs.

Wis. airport course up in air

JANESVILLE, Wis. — Rock County's wish to get an 18-hole public golf course built on county-owned land at the Rock County Airport has stalled indefinitely after a second developer withdrew its proposal.

Rock County Golf told the county's transportation committee it was unable to secure adequate financing to complete the proposed \$2.2 million project.

The county's first choice for developer, LSH Inc. of Janesville, withdrew its bid in 1994, saying it wanted to concentrate on industrial park development. A third developer, GreenVisions Inc. of Chicago, was interested in the project but may have to pull out because of a merger with Crown Golf of Chicago that would cause business conflicts.

Koch to design Michigan facility

GAYLORD, Mich. — The owner of one of northern Michigan's historic resorts plans a \$137 million expansion that includes a new 18-hole, Gary Koch Golf Course and 818 condominiums on 1,127 acres.

Keith Gornick is seeking permits to build the development over the next eight years north of the existing golf-and-ski resort, The Ostego Club at Hidden Valley. The new course would be the 14th in Ostego County.

Tennessee layout receiving facelift

JACKSON, Tenn. — The nine-hole Highland Green, one of west Tennessee's most heavily used public golf courses, is undergoing a facelift thanks to the widening of Highway 45.

Highland Green, where 34,000 rounds of nine-hole golf were played last year, is redesigning and rebuilding three of its nine holes and also building a new 3,000-square-foot clubhouse that will be nearly twice the size of the existing clubhouse. The complete redesign will cost about \$300,000.

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Multiple driving ranges planned for Milwaukee

MILWAUKEE — The home of the Brewers may soon be known as the home of the indoor driving range.

Developer Michael Brielmaier is building a \$2 million, 45,000-square-foot indoor complex called Fore Seasons on the city's Northwest Side and has proposed building several others.

The first complex, expected to open in mid-August, will have a domed double-deck tee area to accommodate 38 golfers with a hitting distance of 75 yards from the tees to a net. At its highest point, the dome will be 65 feet

above the ground. Fore Seasons will also have a 20-acre outdoor driving range with 50 tees and target greens and a short-game practice area for chipping and putting with sand traps.

The facility will also have a miniature golf course, restaurant, pro shop, offices, outdoor volleyball courts and baseball batting cages.

Brielmaier has submitted a bid to the Milwaukee County Parks Department to build golf domes in Greenfield Park, Grant Park and Oakwood Park. The proposal will be reviewed by county officials.

Dye to remake Purdue layouts

LAFAYETTE, Ind. — Golf course architect Pete Dye will return to the Purdue University campus where he took classes in the 1950s: this time to renovate and redesign the university's two golf courses.

Dye will redesign the North Course and improve the South Course as part of a \$5.5 to \$6.5 million project that includes plans for a modern sprinkler system, new shelter facility and a turfgrass research area.

Work on the North Course is

scheduled to begin in the fall of 1996 concurrent with the start of a state and city construction project that will widen a road running through the golf course from two lanes to four. The widening of the road will claim land that includes parts of several holes. All play will be moved to the South Course during construction.

The plan calls for a 7,300-yard, 18-hole course with several water holes that could be ready for play by the spring of 1998.

Golf part of Louisiana theme park proposal

SLIDELL, La. — At least one course and possibly more are part of a proposal for a Six Flags-type theme park on 3,000 acres of land known as Oak Harbor East across Lake Pontchartrain from New Orleans.

Three investors led by Dennis Neyland, a Slidell resident, have made a \$5 million bid for the land and want to develop the golf courses, theme park and commercial and residential space.

Neyland said they see Oak Harbor East as one of the hottest pieces of property in the Southeast. Neyland said he would like at least one of the proposed courses to be open to the public.

East St. Louis gets new track

CAHOKIA, Ill. — After years of debating the need for a golf course, the first dirt has been turned for a \$5 million 18-hole public layout that village officials hope will be the leading force in an economic revival in an area just south of East St. Louis.

Fairway Golf Corp is the developer of the course, which has been designed by Dick Gundlach and Don Ferris. EWR Associates is the course architect. The 6,600-yard track is being built on unused land at Cahokia Park.

New nine ready at Ark. facility

LITTLE ROCK, Ark. — Burns Park now has two, 18-hole golf courses. A new nine-hole layout, under construction for 2-1/2 years, has been added to the existing short nine to create a par-71, 6,300-yard layout.

Burns Park pro Steve Ralston opened the new holes for about a month in late 1994. This spring, builders will finish sodding and installing cart paths. The new nine cost about \$200,000 and was funded by the city of North Little Rock and the Burns Park men's golf association.

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Pete Dye to redesign military track in Indiana

INDIANAPOLIS, Ind. — As part of the nationwide shutdown of U.S. military bases, the state of Indiana will be taking over the Fort Benjamin Harrison golf course June 1 to begin renovations designed by golf course architect Pete Dye.

Believe it or not, Dye — internationally known for his demanding tournament courses — has called the 6,935-yard Fort Harrison course "too tough" for the average player. Plans call for taking out at least five holes and re-routing much of the course using some of the terrain which was included in the original nine-hole

layout. The course was reworked to 18 holes in 1972 by former local architect Bill Diddel.

The course's current back nine will shut down June 1 and the entire course will be closed July 9 so that work can begin. Many of the club's approximately 700 members are unhappy with the decision to close down and change the course.

As part of the closing, the state will also acquire a building that housed the Officers and Civilians Club and nearby single officers' quarters. Those are expected to be turned into public dining and lodging facilities.

So. Maine becoming golf mecca

YORK, Maine — It might not be Hilton Head, but this small historic Maine coastal town is on the verge of a veritable golf explosion.

First came a proposed 18-hole public course to be called The Ledges. Now come plans for a nine-hole, executive links-style course and 20 homesites at the Highland Farms property on Cider Hill Road.

The Highland Farms site is about two miles east of The Ledges. The two proposed courses would give the town its

first 27 holes of public-access golf in decades. The private York Golf and Tennis Club was established in the early 1900s.

The two courses should bring additional tourism to York, according to Ken Giles, a real-estate developer in York who is the driving force behind the newly-announced Highland Farms proposal.

The proposed Highland Farms golf course, restaurant and housing are still under review by the town's planning board. But a permit has been issued to open a pro shop and driving range which will be run by John Stacy, the former assistant pro at York Golf and Tennis.

Westchester County buys IBM land for course

NEW CASTLE, N.Y. — Westchester County has announced a preliminary agreement to buy 194 acres in New Castle from IBM for a new county golf course.

The \$10 million package includes \$5 million for land and closing costs and \$5 million to develop the 18-hole golf course.

The land, called Hudson Hills, was originally a farm, then the site of a private golf course earlier in the century. IBM bought the site in the mid-1980s to possibly build a second research complex, but it scrapped the plan in 1992.

Westchester County Executive Administrator Andrew O'Rourke said there is a tremendous demand for another public golf course in the County.

The county currently has five courses with the last one, Dunwoodie, being built in 1955. The plan requires approval by the county Board of Legislators.

New municipal links planned near Boston

WALTHAM, Mass. — The rolling, scenic grounds of the Metropolitan State Hospital may soon be the site of a golf course.

A recently released draft of state legislation spelling out how the 338 acres should be used contained several provisions for a course. If the legislation passes, the town would have first crack at buying a site for \$600,000.

If Waltham cannot come up with the funds within six months, the state may, within five years, sell or lease the site to a developer for a public golf course.

If the site is not developed as a golf course within eight years of the legislation's passage, it will become a part of the Metropolitan District Commission's reservation on the hospital site.

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Bay State layout to be environmental model

SCITUATE, Mass. — Local officials hope to make a proposed municipal golf course a national model on how to balance environmental and recreational concerns.

Environmental organizations including the Conservation Law Foundation and Audubon Society of New York will offer designer Michael Hurdzan and local officials advice on making the course environmentally friendly.

The course, which is expected to be opened in 1997, is being built along the North River on former Boston Sand and Gravel property.

The plan for the project came out of a conference in January at Pebble Beach where environmental organizations and the golf industry tried to find common ground. Hurdzan suggested that Scituate's planned course on the Driftway — to be called Widow's Walk — be used as an example of how golf courses can improve wildlife habitat and wetlands.

The proposed \$3.4 million course must still get approval from the conservation commission, planning board and the Massachusetts Environmental Protection Agency.

Florida course in media maelstrom

FORT LAUDERDALE, Fla. — Weston Hills Golf Club, home of the PGA's Honda Classic for the past few years, got some bad press recently for its treatment of tournament volunteers.

Historically, more than 1,000 volunteers have received a round of free golf at the course anytime from May to October.

But this year, the free golf is limited to two specific days during the off-season when many of the volunteers, especially snowbirds, will be away.

Some volunteers are so teed

off that they say they will never work the tournament again.

Peter Condon, general manager at Weston Hills, said he changed the conditions of the free golf after receiving complaints from members about the number of non-members playing the course.

He said he told Honda Classic organizers about the change many months ago, but volunteers said they found out through a letter distributed at a volunteer appreciation party put on by the tournament.

Beard hopes to build a pair of California tracks

THERMAL, Calif. — Former PGA Tour player and current ESPN golf commentator Frank Beard has almost done it all in golf, from playing and teaching to writing books and commentating. Now he wants to become a golf course owner.

Beard is one of four partners in the Eagle Links Land Co. looking to develop two 18-hole public-access courses adjacent to the Thermal Airport near Palm Springs. The Eagle Lake plan includes a clubhouse, 20-acre driving range, and snack bar/restaurant. Beard said the lease terms for the land, located in the Coachella Valley Enterprise Zone, will allow Eagle Links to charge an average of \$50 per round including cart.

The valley has 89 golf courses, but only two in Indio and none in Coachella or Thermal.

Beard, who will serve as consultant on the Eagle Links design, said the courses could open by September 1996. The permitting process has just started and financing hasn't been finalized, but the county reportedly wants the development built.

Pilot plans links in W. St. Louis

ST. LOUIS, Mo. — A TWA pilot wants to turn part of his farmland in west St. Louis County into a semi-private, 18-hole links course.

Rockney Dollarhide, 48, said his proposed Aberdeen Golf Club would be an 18-hole tournament-quality course on 200 acres that would cost about \$3 million. Dollarhide hired Gary Kern to design the course. There are no plans for residences.

The name is derived from the Royal Aberdeen Golf Club, established in 1780, in Aberdeen, Scotland. The course would also feature a combined 9th and 18th green and a 4.5-acre lake to be called Loch Myst.

Dollarhide said 10 individuals have signed on for \$25,000 memberships. He's looking for 50.

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Course proposed near L.A.

CULVER CITY, Calif. — Culver City, known for its shopping areas and movie studios, may soon develop a golf course in the area that could cost as much as \$15 million after land purchases.

The closest municipal course to Culver City is also one of the nation's busiest — the 18-hole course at Rancho Park in West Los Angeles.

In 1994, Rancho Park hosted roughly 125,000 rounds with as many as 30 players lined up as early as 5 a.m. on weekend morn-

ings to get their names on a list for tee times.

The proposed site is a 350-acre parcel located in the hills behind West Los Angeles College, portions of which are unincorporated county property and owned by seven different individuals.

Ironically, Culver City once had two adjacent golf courses. But in the name of progress they were paved over in the early 1970s to make way for the Fox Hills Mall and an office park.

Coore and Crenshaw to restore Dallas course

DALLAS — Change is not always for the better, as members of the private Lakewood Country Club in an affluent section of East Dallas have decided.

Frustrated with changes in the past 25 years to the original 1912 Tom Bendelow-designed course and a 1947 Ralph Plummer update, the club's board of directors hired course architect Bill Coore and 1995 Masters champion Ben Crenshaw to return the course to the same specifications in Plummer's 1947 redesign. The final phase of the Coore-Crenshaw renovation will be-

gin June 1 and is expected to take nine months to complete.

Lakewood professional Gilbert Freeman said several greens were altered during the 1970s and 1980s and bunkers removed and added.

Lakewood superintendent Mike Plummer (who is not related to Ralph) already has refurbished five greens and Coore-Crenshaw redesigned five more from 1991 to 1993.

The remaining eight will be done this summer. Freeman said the course's teeing grounds will also be separated into distinct rectangles for a "classic" feel.

Smith accepts post in Arizona with golf ass'n

PHOENIX — South Smith has been named the new managing director of marketing services for the Arizona Golf Association (AGA).

In his new position, Smith will oversee all AGA marketing ventures, including the new Arizona Golf Foundation and the launch of AGA's new on-line date interface service, US Links.

Smith is the former vice president of marketing, membership services and business development for the National Golf Foundation (NGF).

He left the NGF in 1993 to serve as North American vice president of sales and marketing for Gary Player Golf Equipment.

Corrections

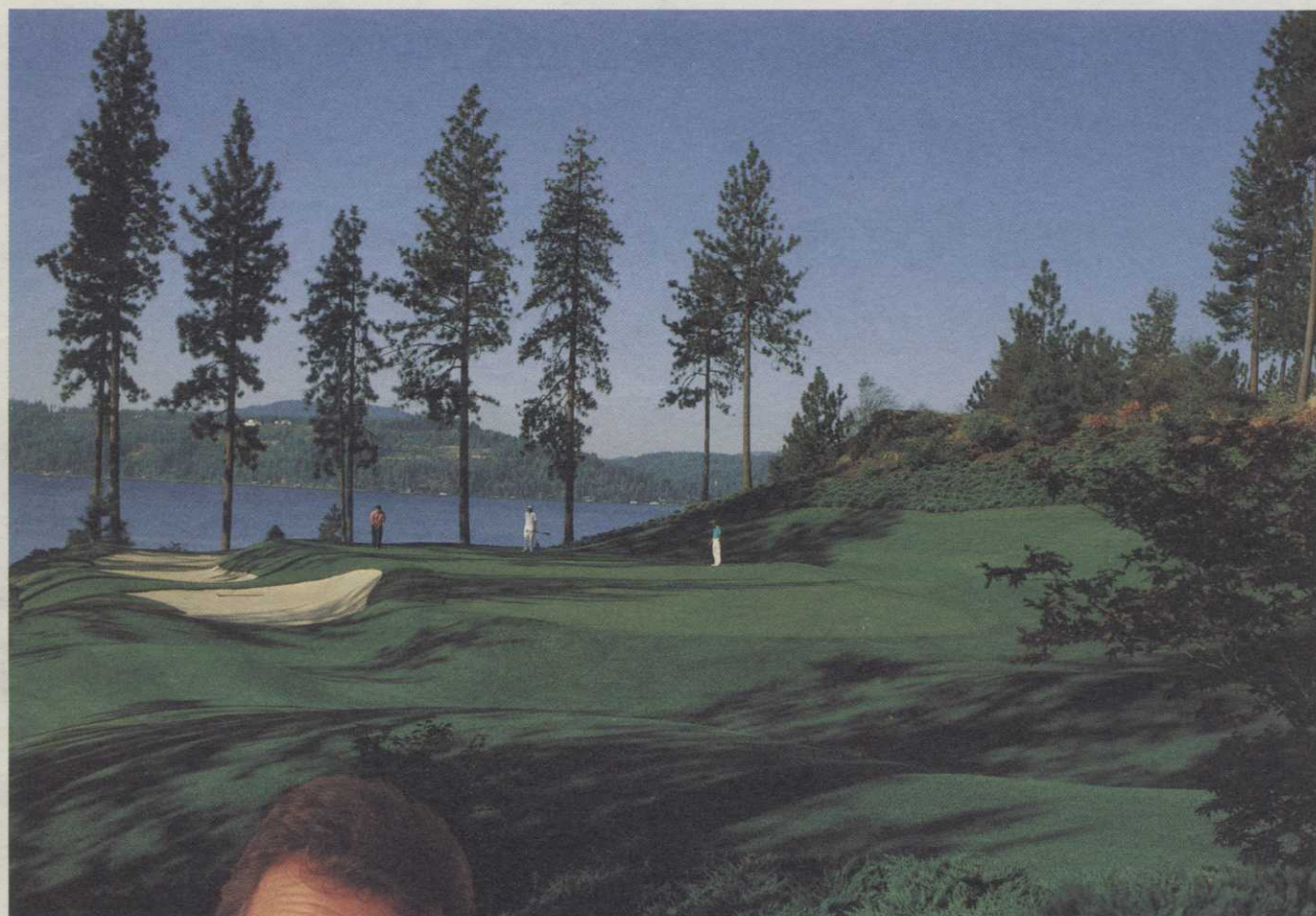
Because of a reporting error, the phone number for Lakeland, Fla.-based International Golf Management (IGM) was printed incorrectly in last month's listing of golf management firms and their holdings. IGM can be reached at 813-667-1317. At the time, IGM had five courses under contract. Now it has six, having added Poinciana Golf & Racquet Club in Kissimmee, Fla.

...

Because of an editing error, April's story on the Cupp/Golf Works renovation now underway at the University of Oklahoma Golf Course contained an unfortunate typo in the headline. As course General Manager and pro Richard Buchanan put it, "You have confused the University of Oklahoma with a university to our north." Mr. Buchanan chose not to identify this northern school, located in Stillwater. So we won't, either.

...

In the listing of golf course management companies and their holdings that appeared in the April issue, part of a company's name was inadvertently omitted. The company's full name is American ClubServ. It was a reporting error.



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CIRCLE #108

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

Va. officials investigating two course proposals

BRISTOL, Va. — Officials in this city split by the Virginia-Tennessee border are taking another shot at turning the Clear Creek Recreational Area into a public golf course.

A golf course committee has talked with two developers about the property. City Manager Paul Spangler, a member of the golf course committee, said the two proposals — one from Summit Engineering of Pikeville, Ky., and the other from a local group which has asked to remain confidential during negotiations — fall outside the scope of the city council's original

direction and more discussion is needed before a final decision is reached. Spangler said a decision could come in May.

Plans to develop a golf course at the Clear Creek Recreational Area have been on the drawing board for about four years. Two previous developers were chosen to move forward but backed out. Bristol originally had a recreational easement on the property in Washington County but has since acquired it from the Tennessee Valley Authority as part of a power-supply contact.

Maine company takes over Bath municipal links

BATH — Family-owned Back Bay Golf Holdings of Falmouth has agreed to purchase the Bath Country Club for \$1.6 million and said the acquisition is part of an overall plan to corner the market on golf in mid-coast Maine.

Back Bay Golf has operated the Falmouth Country Club for six years, purchased the nine-hole Boothbay Country Club two years ago, and is in the process of closing a sale on another nine-hole club, Westernview in Augusta.

Back Bay Golf partner Jeffrey Harris said plans are in the works to expand both the Boothbay and Augusta courses, which, with Bath, would create a triangular territory of 18-hole courses. One of the Back Bay Golf leaders is Richard Harris, a PGA pro who worked at the Bath club for two years in the late 1960s and who is now golf director at the Falmouth Country Club.

Under the sales agreement, Back Bay Golf has paid the city \$25,000 for now. The city will continue to own the club until the sale becomes final on Feb. 15, 1996, when the remaining \$1.575 million is due. Back Bay Golf will also make \$84,000 in lease payments on the course's \$1.3 million loan and be responsible for course improvements.

Voters to decide fate of Texas municipal track

LAKE JACKSON, Texas — The proposed Lake Jackson municipal golf course faces a public referendum May 6 after citizens against the project organized a successful petition.

On May 6, voters will be asked whether they want the 400-acre parcel proposed for the course, and the neighboring 482-acre Wilderness Park, to be protected from development.

The proposed ordinance would allow the city to create foot trails but no construction on the land could take place without later votes by the public.

AGC to operate Ore./Calif. tracks

SALEM, Ore. — American Golf Corp. (AGC) has been awarded a long-term operating lease for the recently completed 18-hole Creekside Golf Club here, the first golf course to be constructed in Oregon's capital city in the last 32 years.

The Santa Monica, Calif.-based company has also secured the lease for EastLake Country Club in Chula Vista, Calif.

AGC was awarded the management contract at Creekside following the club's purchase by National Golf Properties, Inc.

(NGP) and will continue to operate the course as a semi-private club. Public play will be phased out as the membership level grows, with the goal of operating Creekside as an exclusive private club. The course was completed in June 1994.

Encompassing 160 acres within the new EastLake Greens neighborhood just 20 minutes from downtown San Diego, EastLake's 18-hole, par-72, 6,606-yard course was designed by golf course architect Ted Robinson in 1991.

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Seed companies victimized by the double squeeze

Pity the seed companies doing business in Oregon's grass belt. They're getting squeezed and superintendents may well see higher ryegrass prices as a result.

For the better part of two years, we've been reporting on the advent of purchasing groups — courses which have pooled their buying power to negotiate lower prices on products, like grass seed. These groups buy in bulk, so while sales are steady and voluminous, seed company margins take a hit on the top end.

Now many perennial ryegrass growers — the farmers who sell their product to seed companies — have organized a bargaining association and instituted floor prices (see story on page 1). For seed companies, this hurts margins on the bottom end.

It's called feeling the pinch of tighter margins at both ends of the marketplace.

"The price is going up. No doubt about that. People in the golf course market should know that," explained Mike Robinson, Seed Research of Oregon president. "And it's not only because of the bargaining association — it's because of supply and demand."

"There has been a shortage around the world of perennial ryegrass, and seed companies have been getting a little more money this year. But we may be facing a huge crop this year. If we have a bumper crop and prices don't go down, we won't see a price hike until next spring."

Bob Richardson, president and general manager of Great Western Seed, said the increase will come this fall. He also believes the Perennial Ryegrass Bargaining Association may well signal a new era in seed economics. "Initially we're going to see it in ryegrass," he said. "But if these guys are successful — and they are very well positioned to be successful — I can foresee a fescue bargaining association popping up in the near future."

...

Through the wonder of the Turfgrass Information Network (TGIF) and Turfbyte, *Golf Course News* has been on-line for sometime. But we finally have our own e-mail address:

hphillip@gcn.biddeford.com.

For you superintendents, managers, architects and builders with one foot firmly planted in the 21st century, anyone at *Golf Course News* — Charles von Brecht, Mark Leslie, Bob Sanner,

Continued on page 27



Hal Phillips,
editor

Some bureaucrats can't see the issues for the red tape

A friend of ours owns a farm in rural Maine. One day she walked out into her yard to find a coyote standing in the driveway eyeing her dog, who was hitched. The coyote had just killed a sheep, was drooling blood, and may have had rabies since he was already eyeing his next kill and he was out in the open in daylight. A lady jogger running by saw the coyote, crossed to the other side of the street and hollered over, "Patty, don't you know about our leash laws?"

Consumed by an apparent violation of a minor law, that woman entirely missed a real danger.

Do you ever wonder if the same thing is going through the minds of certain bureaucrats?

Do you sometimes wonder if they are talking without thinking and regulating with no common sense whatever?

It was, after all, EPA Administrator Carol Browner who described her job as "... protecting the health of the people of this country and the health of the resources we all share — the air and the land and the water." She was doing fine until she added, "But I can't do my job if the people of this country don't have health care." Say, what?

This all comes to mind because of the case of *Pennington Enterprises, Inc. versus the United States of America* (see page 61). Pennington was absolutely and foolishly wronged by a bureaucrat — supported by other bureaucrats — costing the seed company \$250,000 and a half dozen other companies another \$750,000. Sonny Pennington was the only one to take on the government, fully knowing the long road ahead. And he was indeed prophetic on June 9, 1989, when he said, "The government's got thousands of attorneys on salary who can drag the thing out forever," and added, "I can sue and possibly win \$250,000 and it will cost me \$200,000."

Indeed, some 2,200 days later, the U.S. Treasury has paid Pennington \$250,000 for his losses, plus interest. There was no compensation for the \$170,000 in lawyers' fees that



Mark Leslie,
managing editor

Continued on page 33

Letters

PBI/GORDON SETS THE RECORD STRAIGHT

To the editor:

PBI/Gordon Corp. wishes to correct any misconception concerning the quality of SCAG mowers that may have been generated by our 1995 Embark Lite advertising campaign, "Get the turf management tool that works when you can't!"

The campaign is based on the testimonial of Scott Hall, president of Classic Landscape, Inc. of Frederick, Md. According to Mr. Hall, Classic Landscape uses Embark Lite as a "tool" in his business, i.e. the plant-growth regulator (PGR) keeps turf growth from getting out of hand when schedule delays might otherwise be experienced.

The makers of SCAG mowers felt that the mention of inevitable "mower breakdowns" in an ad which pictures one of their machines might cause the industry to perceive the mower in a negative way.

In fact, Scott Hall has used SCAG mowers for several years and is proud of all the tools he has selected for use in his business. A sprayer, a string trimmer, a blower, a PC unit and a jug of Embark Lite, all the property of Classic Landscape, are

also displayed in the ad.

We hope no one thinks that we intended to imply that any of these items are of inferior quality. After all, Embark Lite is a quality tool, so it was our intention to feature the product among other quality turf management tools.

I would also like to state that the ad is not intended to imply endorsement of Embark Lite by any of the equipment manufacturers whose products are pictured. We understand that many manufacturers feel that PGRs are in competition with them. It's really too bad, because PGRs can't replace mowing and trimming, but they can save wear and tear on equipment and help contractors and managers with scheduling.

Hal Dickey
Director of Advertising
PBI/Gordon Corp.
Kansas City, Mo.

TDD TAKES ISSUE WITH 'TRUCE'

To the editor:

I saw the "Truce" in bold print on the front page of the April edition of *GCN* in regard to the relationship between the USGA and the current physical evaluation laboratories supporting the 1993 USGA Guidelines. I was

confused, because in order to have a truce, you first have to have a "War" and at best Mr. [Jim] Snow's fear was only the need to deal with the potential of angry lab technicians. But I am sure that the mob of Green Section personnel that was in attendance would have gallantly protected Mr. Snow. However, I can't fault *GCN* for the tone-setting header of the article because, as Mr. Stossel was quoted in Mark Leslie's column in April's edition, it sells newspapers.

The meeting that the USGA set up in San Francisco with the American Association of Laboratory Accreditation was in no small way historic. The USGA deserves credit for taking a major step forward in resolving the controversy over the qualifications of the laboratories that protect the integrity of the 1993 USGA Guidelines.

It was clear to me that there was no opposition to the requirement for accreditation of the laboratories and there will probably be a list of accredited labs by the 1997 GCSAA show. However, please let me clarify the somewhat less than optimistic picture of the accreditation process that was attributed to me.

Continued on next page

OBITUARY

Dr. William H. Daniel, 75

WEST LAFAYETTE, Ind. — Dr. William H. Daniel, Purdue University professor emeritus, died Feb. 24 in St. Elizabeth Hospital medical Center, where he had been a patient one day.

Dr. Daniel, 75, retired in 1985 after working 35 years at the Department of Agronomy. One of the leaders in developing the International Turfgrass Society, he pioneered research and educational methods in turfgrass management and developed the PURR-Wick Water Management System and Prescription Athletic Turf (PAT).

He is survived by his widow, Gwen, a son and two daughters.

Memorial funds may be sent to the Daniel Scholarship Fund, Department of Agronomy, Purdue University, or the Endowment Fund of the Federated Church here.

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4. Total annual maintenance budget:

- | | |
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Discovering nature's bounty, and environmental promise, in golf

By MARTIN BYHOWER

To many committed environmentalists, golf courses are, by conventional wisdom, anathema. Perceived as destroyers of valuable natural habitats, guzzlers of precious, diminishing water supplies, and sloppy repositories for pesticides, herbicides, and chemical fertilizers for the sole purpose of maintaining a sterile monoculture of grass, they are the last place most of us would expect to harbor wildlife! Yet some ardent birders have recognized, at least empirically, that certain golf courses can be good places to spot unusual species.

If you think about it, it makes sense. Birds and humans generally like the same kinds of places, and this is no coincidence. Behavioral scientists identify the "ideal human environment," that is, one to which we would naturally gravitate to live (and, presumably, play) as consisting of grassy (savanna) areas with interspersed trees, overlooking natural water sources.

Whether this harkens back to ancestral hominids descending from trees in an African savanna is the topic of a different essay! Birds like trees and water, too, and for many types, an open grassland bordering a grove of their preferred tree species provides the appropriate mixture

The above comment appeared in Hummin', the newsletter for Palos Verdes/South Bay (Calif.) Audubon, a chapter of the National Audubon Society.

of foraging and nesting habitats.

Unfortunately, many important wild habitats, and their inextricably linked native species, have been lost due to the development that often accompanies golf course construction (and, on occasion, golf courses have been the precursors or lures used to sell such developments). Management practices that utilize large amounts of fertilizers or toxic chemical additives, particularly those that are non-degradable (many of which are now, however, being phased out) have been demonstrated to be harmful to wildlife species that try to survive on or adjacent to golf greens. And building water-guzzling golf courses in arid desert environments like Palm Springs, is, in my mind, rather difficult to justify on any grounds.

Golf courses are a fact of life, however, providing recreation for many of the human species. Although the birding habit consumes most of my own leisure (not to mention side-vocational) time, I have friends who balance their addiction between birds and birdies. A remarkable visit on Aug. 12, 1994, to the Virginia Country Club in Long Beach, however, opened my mind to the possibility that golf courses and nature can coexist; for me, this was a startling but very welcome revelation, for it suggests the possibility of two seemingly disparate groups of recreation-seekers becoming allies in ways that enhance the quality of life for both (not to mention aiding in the survival of other critters!).

I would imagine that most golfers

Continued on page 44

Increase of jobs tied to upgrades at daily-fee, municipal courses

By GEORGE HAMILTON

A question that is often asked of turfgrass science educators is "Are you producing more graduates than there are job opportunities?" This is a legitimate question. After all, our mission should not be to produce a sheer number of graduates to support our reason for existence, but to continue to fill a void and meet the demands of our industry. Of course, one demand may be to have the opportunity to select from several qualified applicants for each position open.

The job market for turf graduates this year in the Northeast has been the best I have seen in the past few years. I believe a couple of things are responsible for this.

First, there seems to be an increase in the number of jobs available at single-owner and municipal golf courses with low budgets. Obviously, the low-budget operations typically don't have the money to support a full-

time, well-trained superintendent. An increase in job opportunities in this segment may be the result of the demand for better playing conditions from players. I think the more likely reason is the fact that the superintendent position has become much more complex. This is especially true when considering the environmental issues, pesticide usage and regulation, and worker protection.

Of course, if these positions are going to be attractive to people with the appropriate qualifications, the salaries and benefits will have to match those qualifications. When hiring people for important positions, the adage "You get what you pay for" definitely holds true.

The second, and largest area of demand for turf graduates continues to be assistant and second assistant superintendent positions. This year and in the past we have had many more job openings than graduates to fill them. As of early April, we had received job announcements for 57 assistant and second assistant positions since November. Dr. Trey Rogers of Michigan State experienced the same



George Hamilton

George Hamilton is a member of the faculty in Penn State University's Turfgrass Management Program.

Continued on page 54

Letters

Continued from previous page

There was some confusion about my remarks on the floor of the show in San Francisco to Mark Leslie, and that is very understandable.

There was some discussion of the need for standardized equipment for testing. Many people are not aware that much of the equipment is manufactured by the labs. Sometimes it is hard for associations like the USGA to understand the competitive nature of the commercial industry. As an example, Turf Diagnostics & Design has spent close to \$500,000 in capital funds and development time to produce equipment and test procedures that have set the standard for the industry. This is borne out by the presence of a considerable amount of our development work in the 1993 USGA Guidelines. I could never justify to my investors turning over five years of work to my competitors as part of the accreditation process. In my conversation with Mark Leslie, my five-year scenario included an attempt to standardize the equipment. However, multiple labs have contacted me about this issue and are strongly opposed to any attempt to standardize the equipment.

Imagine if you will: The head of R&D for Toro calling Rainbird's head of R&D and asking him to fax over their latest information on head design because they were

having problems with one of their new heads. The same scenario could apply to Flowtronex/PSI or Watertronics, Scotts and Lesco. Not likely to happen in my lifetime.

Perhaps this analogy will help people better understand this lab issue and the 1993 Guidelines. Let's relate the USGA 1993 Guidelines to a Burberry suit. If you are a 44 reg., but they sell you a 46 long, well, that's still an excellent suit from Burberry's, but not for you. The USGA 1993 Guidelines are akin to a rack of Burberry suits; the key is getting the right fit. If you want to assume that all the labs are producing the same numbers, please understand that just puts you in the clothes store, you will need the right fit. To extend the analogy a little further, it also pays to have a fine tailor when the environment is at stake.

A closing comment to Charlie von Brecht. In my opinion, the GCN Letter to the Editor forum is one of the most important reasons for the overall improvement of the golf development industry.

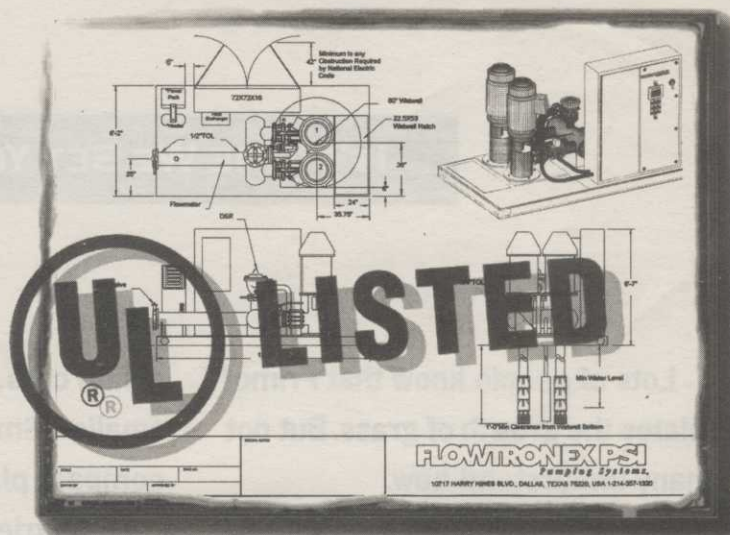
Stephen McWilliams
president/CEO
Turf Diagnostics & Design
Olathe, Kan.

Ed. Point taken on the media's need to "sell newspapers." Fortunately for GCN and its readers, our newspaper is free to all qualified readers, like Mr. McWilliams.

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CIRCLE #111

BRIEFS



LIBERTY ELM PROGRAM INSTITUTED

HARRISVILLE, N.H. — The Elm Research Institute here has established a new program, The Liberty Tree Memorial, to restore elm trees across the country. ERI will work with community officials and others to coordinate mass plantings of the disease-resistant Liberty elms. More information is available from ERI Executive Director J.P. Hansel at telephone 603-827-3048.

DELHI STUDENTS' TRAINING ENHANCED

DELHI, N.Y. — Golf education majors at the State University College of Technology at Delhi will soon be putting one of the industry's newest innovations to the test. Students will learn to operate the Ransomes E-Plex all-electric greens mower



as part of their academic training, thanks to Ransomes America Corp. and its distributor, the S.V. Moffett Co. of West Henrietta, N.Y. The mower, valued at more than \$15,000, is an example of Delhi's commitment to offer students experience using state-of-the-art equipment, according to Dominic Morales, program director.

TPI SETS SUMMER CONVENTION

OMAHA, Neb. — The Turfgrass Producers International (TPI) Summer Convention and Field Days, featuring educational sessions, demonstrations and special tours, will be held here July 27-29. Todd Valley Farms in nearby Mead will host the opening night banquet and demonstration day activities, while Red Lion Hotel here will house the educational sessions. The tour will include the University of Nebraska test facility in Mead and Valmont Irrigation manufacturing plant in Valley. More information is available from TPI, 1855-A Hicks Road, Rolling Meadows, Ill. 60008; telephone 708-705-9898.

UMASS SETS IPM WORKSHOPS

AMHERST, Mass. — The University of Massachusetts Coop. Extension has scheduled a series of landscape and nursery Integrated Pest Management workshops, featuring hands-on demonstrations of IPM tools and techniques as well as a close look at some common cultural problems and troublesome insect, mite and disease problems. More information is available from the Extension here concerning the workshops, set for May 31 and Sept. 6 in Waltham, June 7 and Sept. 13 in Sandwich, June 14 here, July 12 in Stockbridge and Sept. 14 in South Deerfield.

McNabb world's 9th Master Greenkeeper

Palmetto super one of four Americans in elite group

LONDON — You can count the world's Master Greenkeepers on two hands, and Richard McNabb is now one of them.

McNabb, superintendent at Palmetto Golf Club in Aiken, S.C., became one of nine Master Greenkeepers, receiving his certificate at the British and International Golf Greenkeepers Association (BIGGA) annual awards banquet at the British Turfgrass Management Expo here.

McNabb is one of four Americans to earn the prized distinction, joining William Montague of Oakwood Club in Cleveland Heights, Ohio, Robert Maibusch of Hinsdale Golf Club in Clarendon Hills, Ill., and Terry Buchen of Double Eagle Club in Galena, Ohio.

Saying merely that he is "proud of the accomplishment," McNabb added that he first became interested in the Master Greenkeeper (MG) certification in 1993 while working on a greens renovation at St. Margarets Golf Club in Dublin, Ireland.

To achieve MG status, a superintendent must meet standards in education and experience and pass a written essay



Richard McNabb

test as well as a course examination by BIGGA.

McNabb, who earned his certified golf course superintendent (CGCS) status from the Golf Course Superintendents Association

of America in 1981, has worked at Palmetto since 1994.

He is working on a bunker renovation and regrassing of the greens, tees and fairways on the course, which was built in 1892 and then remodeled by Alister Mackenzie in the 1930s.

A native of Long Island, he graduated from the University of Massachusetts' Stockbridge School in 1973. He was assistant superintendent at Middle Bay Country Club in Oceanside, N.Y., in 1973-74 and returned there as head superintendent for 10 years in 1975 after a one-year stint in charge of maintenance at Lido Golf Club in Lido Beach, N.Y.

In 1985 McNabb went to work at Lake Hickory Country Club in Hickory, N.C. He joined turf consultant James Lynch of Long Island in 1992, working on projects in Chile and then Ireland.

MACKENZIE'S PALMETTO UNDERGOING 'CONNORISM'

AIKEN, S.C. — Golfers President Ed Connor has plied his laser-technology trade and greens renovation prowess on famed golf courses from Pebble Beach and the Riviera Country Club on the West Coast to Firestone South in the Midwest and Pinehurst #2 and Seminole Golf Club on the East Coast. In May he expects to begin and complete his newest project — Palmetto Golf Club here.

Connor, headquartered in Ormond Beach, Fla., has specialized in using laser technology to grid-map golf courses designed by classic architects. At Palmetto, built in 1892 and redesigned in the 1930s by Alister Mackenzie, he will laser-level the tees and sprig the fairways, tees and greens with 419 Bermudagrass. He will also restore the trademark Mackenzie bunkers. Connor has also completed the process of preserving the greens contours on computer.

Meanwhile, Connor will start a resurfacing project at Loxahatchee Club in Jupiter, Fla., on May 15. Crews will strip off the bentgrass and replace it with Bermudagrass.

STIMPMETER IMPACT WIDE-RANGING



Terry Buchen illustrates Stimp meter use at Double Eagle Club in Galena, Ohio.

The lost cause: Telling green's 'trueness'

By TERRY BUCHEN

Edward S. Stimpson, the 1935 Massachusetts Amateur champion, designed the Stimp meter some 40 years ago but it was brought to its present form through the hard work of Frank Thomas, technical director of the U.S. Golf Association and the staff at the USGA Green Section in the late 1970s.

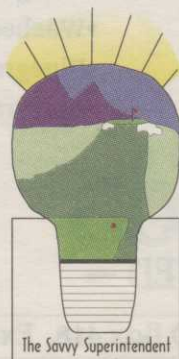
The Stimp meter has been a valuable tool for golf course superintendents to make their green speeds more consistent for the golfing elite. If the total measurements, done in two directions, on all 18 greens is within 8 inches of each other, the greens speed consistency is considered good; within 6 inches is consid-

ered very good; and within 4 inches is considered excellent.

There is another extremely valuable use for the Stimp meter that has been overlooked since its inception.

The Stimp meter can also be used to tell "how true" a putting surface is and how good and consistent the roll of the ball is. While the green is being checked for speed, it can also be checked for its "trueness" by being a little more scrupulous in holding and implementing the Stimp meter operating procedure.

Simply put, while holding the Stimp meter — just below the



Modern-time golf driven by equipment

By JIM CONNOLLY

During the 1930s, a device was conceived by a Boston amateur golfer that would impact the game some 45 years later — the "speed stick," known today as the Stimp meter.

Mr. Stimpson played golf in the Boston area with great regularity and was involved with several golf organizations. He noticed there were differences in putting greens from course to course. Stimpson was surely not the first to recognize this variability, but perhaps he spent more time lamenting the situation, and this led to his invention.

Even though Stimpson was an accomplished golfer, winning the 1935 Massachusetts Amateur Championship, he felt there must be some way to measure, and perhaps control, the condition of putting surfaces.

He said: "There is no standard set for the speed of putting greens. I believe there is a need to establish quantitative limits to certain conditions, still recognizing that growing grass can never be given an absolute measurement."

Perhaps unknowingly, Stimpson's statement is an oxymoron. In one breath he stated the need for a standard, then said it couldn't be done. The Stimp meter may have been conceived without full knowledge of its ultimate use, or abuse. The concept of placing a numerical figure on ball roll had its genesis in the 1930s, but was not officially adopted by any organization until 1974.

A philosophy was emerging that embraced the idea that uniformity of greens

LAST
IN A
SERIES

Continued on page 21

Continued on page 20

Canada's best: Wayne Brown earns Super of Year accolades

By MARK LESLIE

RED DEER, Alberta — Not content with the status quo, Reed Deer Golf and Country Club superintendent Wayne Brown is always looking for improvement at his golf course — adding a forward tee here, refining a bunker there. But Brown's vision is not limited to Reed Deer. Indeed, it encompasses all of the Province of Alberta, and farther, and

therein lies the substance of why he has been honored as the Canadian Superintendent of the Year.

"I think I won the award for an accumulation of efforts, not 1994 in particular," Brown said. Deferring credit to others, he added: "I wouldn't have gotten it without the support of my fellow superintendents. It's a group effort. We all help each other. I may have received the award,



Canadian Superintendent of the Year Wayne Brown of Red Deer Alberta (above) and the green at his Red Deer Golf & Country Club's 9th hole, a 436-yard par-4 (at left).



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CIRCLE #112

but it reflects on the Alberta GCSA [Golf Course Superintendents Association] as much as anything. I don't think one person can do it by himself."

While Brown has overseen maintenance of Red Deer G&CC since 1974, he also helped found the Alberta GCSA in 1987, serving as vice president in 1987-88 and president in 1989. He has been integrally involved with the Alberta Turfgrass Research Foundation, handling presidential duties since 1993.

The work and educational activities of associations, he feels, are vital to the growth of superintendents, especially in the 1990s. "As a group we are more aware, better educated," Brown said.

"In our Alberta association we are very concerned with environmental issues. To belong, we must have a pesticide application license. We're on top of issues and try to be

proactive instead of reactive.

"Superintendents are eager for information, going to seminars, etc. We have a seminar every year in Red Deer and sometimes people attend from as far away as 400 to 500 miles."

Agreeing that it is more difficult to be a superintendent today than 10 or 20 years ago, Brown said: "But, by the same token, while there is more expected of you and there is more you have to know, a better-educated person is coming into the workforce and that helps compensate."

"In a lot of ways, the superintendent coming out of school now is better prepared. And there are tools we didn't have available to us [years ago]."

Brown's education has been on the golf course — first as a teenager from 1967-74 under Canada's first Superintendent of the Year, Sid Puddicombe, at Mayfair Golf and Country Club

in Edmonton.

He has taken that knowledge to new heights at Reed Deer G&CC, hosting many tournaments including the Canadian Junior, Canadian PGA Tournament, Alberta Open, Alberta Amateur and other provincial and nationally sanctioned events.

"You get a chance to strut your stuff," he said of the tournaments. "I enjoy it. It gives you the chance to do that little extra."

"Our members don't like giving up the golf course for a week. But they are very proud of it, so they welcome the opportunity to show it off. It's also increased pride in the maintenance people working here. They take pride in what they do."

When not preparing for a tournament, Brown for more than a decade has devoted time to carrying out a master plan for the course.

"For the last 15 years we've been gradually improving the entire course — new and bigger tees, and bunkers," Brown said.

With a crew that runs from four in the winter to 16 in summer, he works closely with course architect Bill Robinson of Florence, Ore. Robinson in 1976 renovated Red Deer, which was established in 1922.

"This year," Brown said, "we're just doing a few short tees. We hope to have a new master plan in place by this fall and to start construction in the fall of 1996. We host the Alberta Amateur next summer and want to have that under our belt before we start construction."

"First, we will rebuild one or two greens. They are [native soil] and we will make them close to the USGA [U.S. Golf Association] specs."

Interestingly, at Red Deer, poa annua turfgrass is "the playing surface of choice among our members," Brown said. "When we build a new green, they want it to be like the others — all poa. We tell them, in three or four years, it will get there."

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CIRCLE #113

Study finds fungicide in runoff when applied before heavy rain

By MIKE KENNA

GRIFFIN, Ga. — Applying a pesticide just before a heavy rainfall can sometimes lead to runoff problems with certain pesticides on sandy clay soils. University of Georgia researchers report that up to 42 percent of the simulated and natural rainfall that occurred over a 25-day period left the plots as runoff. Approximately 8 percent of the total amount of herbicide applied to the fairway plots was found in the runoff water — most of that in a simulated heavy rainfall 24 hours after application.

The U.S. Golf Association sponsored Dr. Albert Smith of the University of Georgia to evaluate the potential for pesticides applied on golf course fairways to enter into surface waters, such as lakes, ponds and streams.

The small fairway plots were developed at the Agricultural Experiment Station here. Tifway Bermudagrass sod was placed onto a sandy clay soil typical of the Southeast. The plots had a slope of 5 percent and drained into individual collection units designed to measure the total water runoff and to subsample the water for detecting the presence of pesticides.

After the plots were treated with the herbicides, simulated rainfall events were used to supply enough water to produce runoff events. Treatment periods were selected that would allow for at least 48 hours without a natural rainfall event. The simulated rainfall was used 24 and 48 hours after the herbicide treatment, and natural rainfall events were monitored when they occurred for the 25-day period thereafter.

A total of seven simulated and natural rainfall events occurred during the 25-day period following the application of 2,4-D, mecoprop, and dicamba. An average of 42 percent of the rainfall water left the plots as runoff and approximately 8 percent of the applied herbicides left the treated plots in the runoff water. Most of the herbicides found in runoff water moved off the fairway plots during the first simulated rainfall event which occurred 24 hours after applications were applied. The rainfall simulation was designed to give a very high-intensity storm 2 inches per hour. The simulated rainfall events lasted for one hour.

The University of Georgia

Dr. Michael Kenna is director of Green Section research for the United States Golf Association. He works out of Stillwater, Okla.

experiment illustrates the need to apply pesticides when rain is not expected.

Several management strategies can decrease the quantity of pesticides leaving in runoff water. First, a healthy stand of turf will provide filtration and help reduce runoff.

Second, a light irrigation following the pesticide application can be used to wash the chemical from the foliage and

surface down into the thatch and soil.

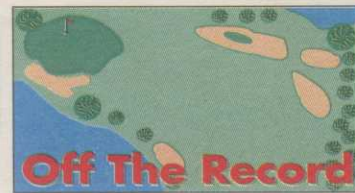
Third, the use of buffer strips around surface-water features can reduce the amount of runoff. Finally, core aeration can reduce runoff by increasing the rate of water infiltration into a sandy clay soil.

These management strategies will be evaluated during the next three years by U.S. Golf Association-sponsored

research projects.

Always thoroughly read and follow the pesticide label directions when making pesticide applications. Generally, for products not requiring immediate irrigation, a six-hour period following application of the pesticide is required for maximum efficacy in pest control.

Therefore, the application could be made during a time that has a low chance of



rainfall for a 24-hour period, and a light irrigation application could be made six hours after treatment. This would help place the remaining pesticide in the thatch or grass root zone which would help prevent movement in runoff water during a high-intensity storm event.



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The 18th Green at Muirfield Village Golf Club; Jack Nicklaus and Superintendent Mike McBride.

History: Stimp-meter turned the focus from player ability to course condition

Continued from page 15

was paramount in the selection of champion golfers. Until then, championship golfers had been selected based upon their ability to adapt to the playing field. The focus on player ability was shifting to course conditioning. The introduction of the Stimp-meter as a catalyst, placing greater focus on the condition of the putting green.

The U.S. Golf Association's (USGA) *Stimp-meter Booklet* promotes it as a tool "which makes it possible to make a standard measurement of — and place a numerical figure on — the speed of a put-

ting green."

Two purposes for the Stimp-meter are:

- It aids in identifying inconsistencies from green-to-green on the same golf course.
- Places a numerical figure on the speed of the putting green.

The Stimp-meter has such a profound effect upon the game today, that it is worth spending more time evaluating the usefulness of this tool. In reviewing its objectives, some interesting facts come to light. The first objective, "uniformity," can be evaluated with a Stimp-meter or a number of other methods. Any test device that rolls a golf ball over the green surface allowing distance to be measured would suffice. Functionally, the Stimp-meter is a good tool for this purpose.

The question then becomes, "Is non-uniformity a major problem on golf courses today and, if so, what is the cause?"

Tests by Cook College at nine golf courses in 1979 showed "remarkable uniformity" among greens at the same golf course. Remember, this was in 1979 when maintenance practices and cutting heights were not as advanced as today. Cutting height exerts the primary influence upon putting speed. Research at Penn State shows the major influence on green speed is mowing height and frequency.

It is reasonable to assume that if all the greens are mowed at the same height, they will be fairly consistent. Inconsistencies would arise from a number of conditions, most of which can be identified and addressed by management. Inconsistencies among putting greens come from poor drainage, shade, turfgrass health, and other identifiable deficiencies.

The second objective, "Placing a numerical figure on ball roll," has been the subject of much clamor and debate when discussing putting green management. The USGA states in the *Stimp-meter In-*

struction Booklet: "It is not the intention of the USGA to standardize green speeds."

Ironically, the standard on speed was set when the USGA released a list of speeds for championship play, and regular membership play.

The chart actually does not say "good" is fast and "bad" is slow, but leading statements to support this philosophy can be found throughout USGA literature. For example, Al Radko stated in an article *How fast are your greens?*: "Fast greens are considered to be a better test of one's skill and in general eliminate some of the many variables on experiences on the putting surface."

In the USGA Championship Manual it states, "Fast greens are desirable because they require a player to have a delicate putting touch."

Many use the Stimp-meter as an indicator of how successfully the superintendent can achieve fast green speeds. Since the Stimp-meter is an "official" tool, its use is deemed functional and acceptable.

The whole issue of speed further places emphasis upon the condition of the playing surface and less attention on the golfer's ability to adapt and overcome.

The quest for the fast and perfect putting surface has paved the way for specialized equipment designed to accomplish these lofty objectives. Maintenance budgets for golf courses that strive to achieve faster putting surfaces have increased accordingly.

The rebirth of turfgrass rollers is a direct result of the need to satisfy today's requirement for fast greens. More than ever, good agronomics are sacrificed for green speed. Lower cutting heights, heavy rollers and intense grooming undoubtedly increase the need for water, fertilizer and pesticides.

This fact does not seem to have shifted the focus off of fast greens, nor slowed the pursuit of fast greens. Surprisingly, very little research has been done on pesticide use and its relationship to cutting heights.

The current standards for a good golf course are much different than those 100 years ago. Some argue that change is necessary and good for the game of golf, while others are more traditional and feel the backbone of the game is being severed.

Tom Watson and Ben Crenshaw are advocates of the "old game." They enjoy the whimsical game of chance that golf used to be. They view an unlucky lie, a funny bounce, and an element of chance as a great part of the game.

There is no question the putting green represents a large part of the game. I believe it is important to place all parts of the game in perspective and closely scrutinize changes that affect it. This great game should be protected from unnecessary change. Governing bodies such as the PGA, USGA, and the Royal and Ancient, should be protecting the game and be careful not to enforce standards for maintenance based upon what is considered a "good" golf course.

"Play the ball where it lies" has lost its meaning.

Perhaps Bobby Jones summed up putting best when he said: "Worrying about rough spots in the green has no effect except to make the stroke indecisive, and I believe that bad putting is due more to the effect the green has upon the player than to the action of the ball."

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CIRCLE #117

Savvy Super says: Stimp reveals more

Continued from page 15

20-degree angle where the ball is released from the ball release notch — hold the Stimpmeter firmly with one hand and hold the three balls in the other hand. As each ball is released, keep the Stimpmeter from moving towards the left or right. Have as little movement as possible, up or down, before and after each ball is released.

If the putting surface is really true, the second ball will touch the first and the third ball will touch the second every time — in both directions. If the balls do not touch and roll and stop in three different positions, the greens are not rolling true and verticutting/topdressing/multiple mowings, etc. will be needed.

Take note: the Stimpmeter must have as little movement as possible before, during and after the golf ball is released onto the putting surface.

Also, it is important that all three balls are from the same manufacturer, that they are a small-dimpled type and preferably 100-compression balata-covered.

Al Radko, former national director of the USGA Green Section, and Stan Zontek, director of the Mid-Atlantic Region, gave me a wooden Stimpmeter that was one of just 12 originally produced of cherry wood in the late 1970s.

I used the wooden Stimpmeter extensively as an agronomist for the PGA Tour as part of my advance work at all tournament sites. All readings were sent to the USGA. When I worked at a tournament during the event, I would take Stimpmeter readings of all 18 greens for a full week and send the results to Al and Stan.

During this indoctrination period, I perfected the technique to test the trueness of each and every putting surface, which is very accurate as long as the person doing the testing has a steady hand and a little practice in getting it done the right way. This trueness testing is really a hidden treasure that can be extremely useful to have perfectly true putting surfaces.

It is interesting to note that in the United Kingdom (England, Scotland, Wales, Northern Ireland) course managers and head greenkeepers pride themselves in having greens that are not consistent as far as speed is concerned. It's their belief that the "local knowledge" factor of each individual putting surface is the name of the game.

But things are changing in the UK and it will be interesting to wait and see if the Stimpmeter ever really catches on when determining speed consistency and the real trueness of their putting surfaces.

Glen Abbey's Dean Baker named Nicklaus Super of Year

NORTH PALM BEACH, Fla. — Dean Baker of Glen Abbey Golf Club in Oakville, Ontario, Canada, has been selected Nicklaus Superintendent of the Year by Golfturf, a subsidiary of Nicklaus Design. The award recognizes excellence in turf maintenance as well as the highest degree of professional ethics and standards.

"As the first solo design project opened by Jack Nicklaus, Glen Abbey has long served as a standard for the excellence

associated with a Nicklaus design," said Edward A. Etchells, president of Golfturf. "Dean has done a tremendous job in maintaining the course's condition for public golfers and for the top players in the world for the Bell Canadian Open."

Baker has been employed as Glen Abbey's superintendent since 1989. He is a graduate of the University of Guelph with a diploma in agriculture and Ryerson Polytechnical Institute in business administration.

Established in 1984, the Nicklaus Superintendent of the Year award honors superintendents at Jack Nicklaus golf courses who have distinguished themselves in the field of golf course maintenance. Baker is the 13th recipient of this honor.

Glen Abbey Golf Club is owned by the members of the Royal Canadian Golf Association and is open to the public throughout the golf season, except during the Bell Canadian Open.

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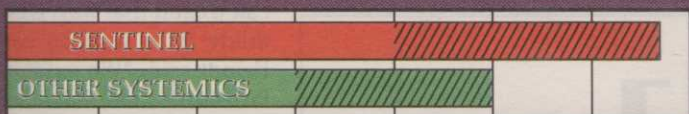
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Brown Patch

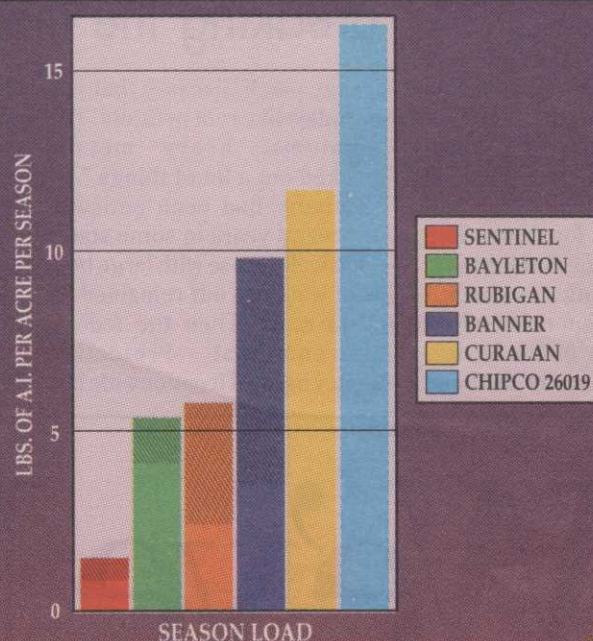
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By MARK LESLIE

ROCHESTER, N.Y. — June 1994. The month stands out in bold neon, blinking in the memories of golf course superintendents across the country. It marked the end of the Era of Mercury, and thus the threshold of the Time of Troubles — troubles they knew not of... then.

"Mercury was one of the fungicides we used for things like snow mold control. But I think it kept a lot of things in check," said Bob Feindt, superintendent at Country Club of Rochester. "You never saw many of these

strange patch diseases that you see today: like root pythium. The cadmiums, heavy metals, knocked out a lot of things."

Mercury had been outlawed for several years in some states — basically those with large bodies of water — but remained legal in most. Then the federal Environmental Protection Agency banned it nationwide last

June. Now, superintendents in states like New York, who for years had to deal with turfgrass problems without mercury, have the expertise share with newcomers concerning this ban.

A major nemesis on golf courses since the mercury prohibition is moss on greens. "You're seeing moss more and more," Feindt said. "We're cre-

ating ideal conditions for it. We cut the grass extremely low and don't feed it as heavily. So we weaken the turf and give less competition to the moss.

"Greens that are shaded, or with excessive moisture, encourage moss, also."

Dr. Noel Jackson of the University of Rhode Island promotes an easy solution: raise the cutting

heights and increase fertilization. "Iron is a temporary expedient," Jackson said. "It is a very effective desiccant of mosses. But the point is, it's effective but not persistent."

But clubs like CC of Rochester, Oak Hill, Oakmont (in Pennsylvania) and thousands of others can't do that. Their members or clientele demand speed on their putting surfaces.

The solution for Feindt and others has been liquid iron. "We tried a potassium salt and it didn't work as well as iron," Feindt said.

"If the green will take a 100-percent [iron] concentrate, you can treat it that way. Or you can dilute it to a 50-50 solution," Feindt said. "We put it in liquid form in a Windex bottle and spray it on the moss, or apply it with a paint brush. It literally burns out the moss."

"Leave it for a week. It turns black. Then put a plug of fresh grass in. Some guys dig it out. We have a 2-inch plugger."

While moss can appear any time of year, Feindt said he attacks it "more aggressively in the fall — when it's cooler. I take the iron right out of the bottle and hit that spot. You will get more injury to the turf in the hot weather. In October-November you will get some injury but not like in July-August when the plant is under stress. Plus, in the fall it has the winter months to heal over."

Feindt suggested each superintendent "experiment in their own situation, trying different concentrations [of iron] to get rid of the moss. Nothing is black and white in this industry."

Like with any pesticide or fertilizer, superintendents should conduct the tests on their turf nurseries when possible, before applying it on the course.

Terry Buchen, superintendent at Double Eagle in Galena, Ohio, said he uses frequent, light applications of iron instead of heavy — ensuring, also, there is no nitrogen in the product. His mix: 10 ounces of iron (a 21-percent water-soluble granule) per 1,000 square feet.

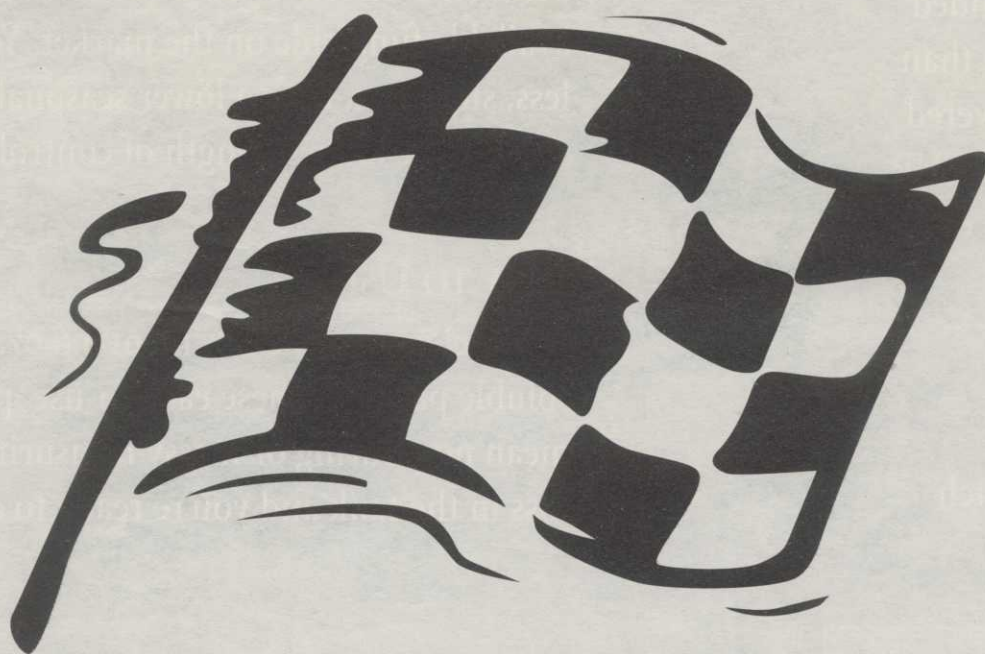
The battle, Jackson said, will never be won permanently with the iron solution because it does not kill the moss spores and that is how moss spreads. Nor do other commercial products, namely pesticidal soaps — potassium salts of fatty acids.

None of these treatments address the basic conditions leading to moss growth. "Those conditions are anything but instrumental in reducing the growth of the grass," he said. "The only thing that conferred long-term protection was mercury."

How much higher would Jackson have superintendents cut the grass? "You can't generalize," he said. "Some courses can mow at 1/8 inch and get away with it. Others, where the surface is undulating, get scalped when you mow even at 5/16 inch."

Breaking the mercury habit: Supers share clues

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Safely recycling rinsate water — saving both H₂O and money

By MARK LESLIE

NAPLES, Fla. — So, you want to save water ... paper ... time? You want a hygienic, safe equipment and hand wash station? Check out Collier's Reserve's Integrated Plant Management (IPM) control center here.

Stressing that "this is not the way, but another way to do things," golf course manager Tim Hiers credited Oklahoma State Extension Service agricultural engineer Ronald T. Noyes with originating the idea for Collier's Reserve's rinsate system. He said a government regulator had the idea to use top dressing to clean up hazardous waste spills.

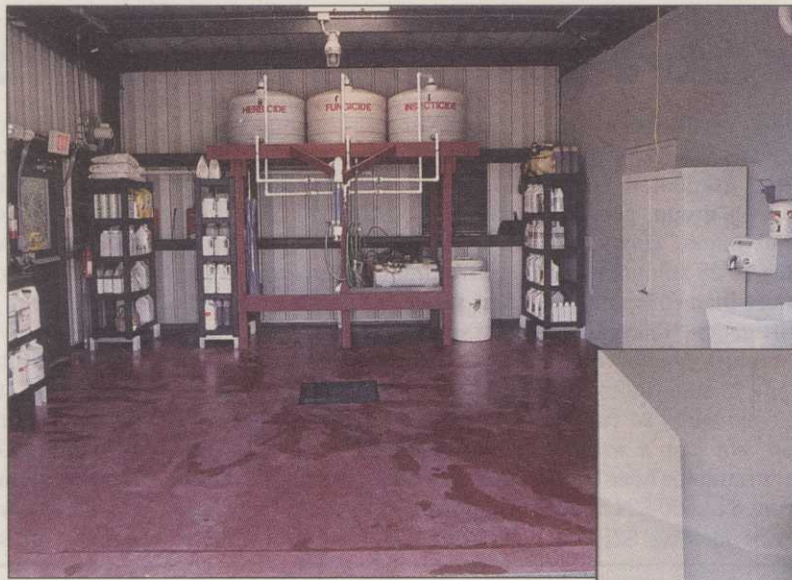
From soap to spills to hot-air blowers, here is a rundown on this corner of Collier's Reserve's IPM control facility, at which recycling has become a way of life.

• Water from pesticide rinsate and the hand sink drains into a sump and is pumped into one of three 100-gallon holding tanks in the building, depending on whether it is herbicide, fungicide, or insecticide rinsate. A lever controls a valve on the sump that sends the water to the correct tank.

The next time the crew sprays a pesticide, it uses water from the correct holding tank as the carrier. "The [pesticide] residue is so infinitesimal..." Hiers said, "we've never had a problem, or heard of anyone having a problem [mixing in other pesticides]."

It takes three or four months to fill the fungicide and insecticide tanks, said Collier's Reserve IPM specialist Mike Litton. The herbicide tank "gets filled pretty regularly, about once a month," he said, "because we rinse out our 15-gallon sprayers. We basically use non-selective herbicides only on our landscape mulch beds."

• Flanking the sink are five-gallon buckets containing top dressing, to be used to absorb any pesticide spill ("I've had one in 20 years, when a hose broke," Hiers said.). Typically, a hazmat cloth is used to wipe up a spill, thus creating a hazardous waste.



Collier's Reserve crews save rinsate by pumping it into storage tanks, above, and even from the wash station, right.

"Take the top dressing," Hiers said, "apply it to the spilled pesticide, then apply the top dressing on a target area on the golf course, trying to follow the label rate (Basically, you'll spread it on the turf and let the microbes do the rest.)."

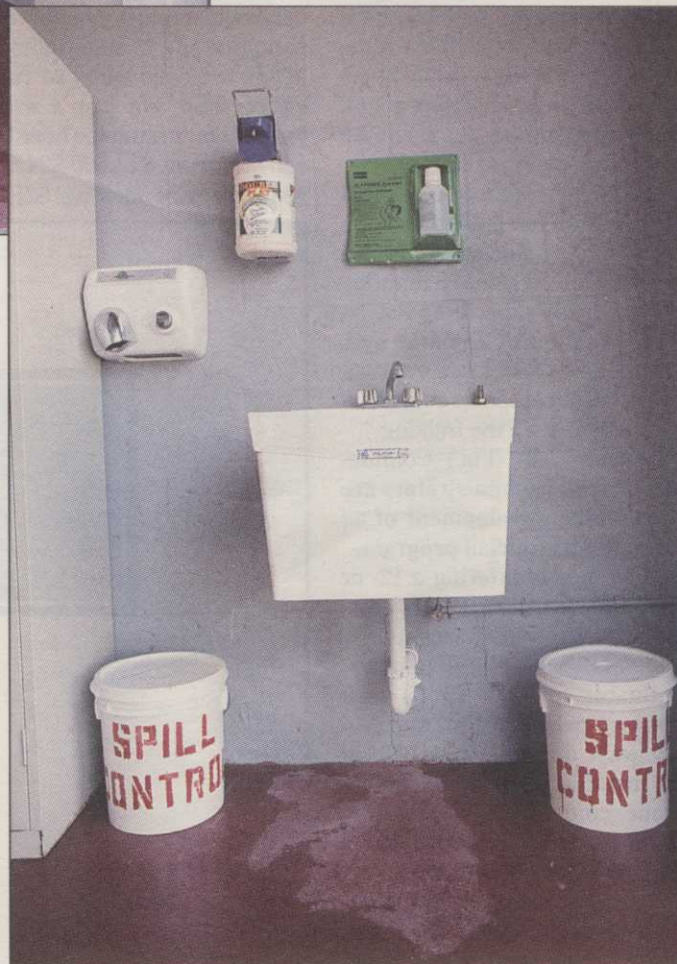
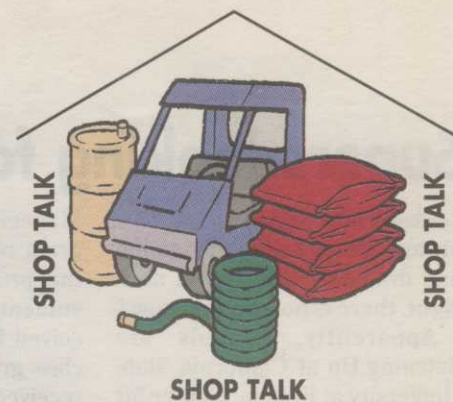
• Replacing hand towels, the hot-air blower saves paper — and more. "Technically, you can be wiping your hand with a pesticide and maybe creating a hazardous waste. We don't have to worry about that. With the blower you don't create anything, plus this is better for hygiene," Hiers said.

• The soap dispenser contains an industrial cleaner with recycled plastic particles in it. Recycled plastic particles? Uh-huh.

The best function of Collier's wash station, Litton said, is that "it is a continuous recycling process... It makes sure you don't have illegal rinsate floating around... and we're not wasting anything."

Most appreciated about the system is that it is totally contained, Litton said. "There is no way — save for a tornado or hurricane, maybe — that any [spill] will leave this building. If you have a problem, it will stay right there. It is peace of mind."

Litton said having the irrigation water and holding tanks in the building saves time. "I can pull the sprayer straight into the building and ... be up and going in less than five minutes," he said.



Ed.: Superintendents, their grounds crews and mechanics spend a major portion of their lives in their maintenance buildings. Creating the most cost-effective, space-efficient and time-saving operation possible is a goal of many. To that end we use this space to share ideas that are passed along to us. We welcome your contributions. Just write: ShopTalk editor, Golf Course News, P.O. Box 997, Yarmouth, Maine 04096; telephone 207-846-0600; or fax 207-846-2292.



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Supers looking for more specialties among graduates

Continued from page 1

always comes back to irrigation and drainage. Unless you do it right, there is no grass to mow."

Apparently, schools are listening. Up at California State University at Fresno, Center for Irrigation Technology Director Dave Zoldaski is pushing hard for the school to build a nine-hole golf course that would hopefully lead to a structured golf course irrigation program at the mainly agricultural school.

"With the training he gained here, one of our students got a job as an irrigation specialist at a private club. Within 18 months, he was head superintendent at another course," Zoldaski said. "There are a lot of golf jobs out there that our students could land if we can beef up the training."

At Lake City (Fla.) Community College, administrators are considering development of an irrigation technician program.

"The idea of offering a 12- or 18-month program keeps coming up when we talk to superintendents," said John Piersol, coordinator of Lake City's Golf Course Operations Program. "I'd say we'll do something within the next five years. A large landscape company told me they could place 30 irrigation techs tomorrow if we had them."

The immediate problem, Piersol said, is whether golf courses would pay for a formally trained irrigation technician. "From what we've seen so far, superintendents tell us they couldn't pay much more for a formally trained technician than for someone assigned to do the job from the in-house crew."

That mindset could be changing, however. "I'd say a formally trained technician would start at at least 90 percent of what the average assistant gets," Davies said. Ninety percent is impressive considering the irrigation tech may have a one-year degree, compared to the two-to-four-year degrees most assistants possess.

"I'd say an 18-month program would be sufficient — 12 months learning hydraulics and six months specializing in golf course applications," Davies said.

Added Tom Kimmel, executive director of the Irrigation Association: "We feel very strongly that course maintenance programs need to spend more time teaching students about irrigation. They spend a lot of time on turf, but very little on irrigation."

"Irrigation technician is becoming an important job at golf courses. Water is just so important in many areas. Irrigation systems are the most expensive part of building a new golf course and the water bill is one of the biggest monthly bills once the course opens."

It's hard to argue with Piersol's ability to pinpoint the need for new programs. He started Lake City's one-year Turf Equipment

Management certification program two years ago. Last year, the program graduated seven students. As a group, they received 50 job offers. This year's class graduated 25 students who received more than 60 job offers.

"It's like irrigation," Piersol said. "The equipment is expensive and complicated. A superintendent needs someone who can run an entire shop, not just a wrench turner. Our graduates have been starting from \$18,000-\$24,000 a year. They're making \$25,000-

\$30,000 in a short time. Experienced turf equipment managers at the larger resorts are making \$35,000-\$50,000."

Competition is still keen for the traditional entry-level job for turf school graduates — assistant superintendent. But the number of available assistant positions seems to be higher this year.

"We had more job offers than we had graduates for the first time in many years," said George Hamilton, agronomy instructor at Pennsylvania State Univer-

sity's turf management school.

Piersol agreed, to an extent.

"The market looks good this year for assistants," the Lake City educator said. "The problem comes three to five years out when those assistants want to move up. When a position becomes available, you typically see 30 to 100 applicants for a head superintendent job."

"There still seem to be too many schools pumping out too many people who want to be superintendents. Our students are getting



Wanted:

- Irrigation specialists
- Turf equipment managers
- Assistant superintendents

the idea.

"We have 44 third-year students set to graduate from our three-year Golf Course Operations program [where most of the school's assistant superintendents come from]. We have just 34 second-year students."

You have to start pretty early to get the pick of the crop at the orchard.

5:30...5:20...5am. Course Superintendent, Ted Woehrle, couldn't believe it. But shortly after the Workman® arrived at The Orchards Golf Club in Washington, Michigan, his staff started coming in earlier and earlier to get the Workman for the day. "We had other work vehicles," recalled Ted, "but everyone wanted the Workman."

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Phillips comment: All ahead into the 21st century

Continued from page 12

Peter Blais, Diana Costello-Lee and myself — can now be reached at this address, which will also appear monthly in the masthead.

I honestly believe this will allow better communication between Golf Course News and our readers. Besides, those of you with postal phobias can now e-mail letters to the editor, story suggestions, likes, dislikes and agronomic epiphanies.

For those of you not yet on the

Net, get with the program! Don't wait until your kids have to show you how...

...

This just in: The Colorado Golf Association (CGA) has gone spikeless. In the four tournaments it has scheduled for this year, use of metal spikes has been prohibited. Alternative cleats will be provided by Rockwell, Md.-based Softspikes Inc. for all those participating in the events: June 5-8 at Bear Creek Golf Club in Denver; Sept.

12-14 at Battlement Mesa Golf Club in Battlement Mesa; Sept. 16-17 at Sheraton Steamboat Golf Club in Steamboat Springs; and Sept. 22-24 at Fort Collins Country Club.

According to the CGA's stated policy, players will not be allowed to wear metal-spiked shoes, period. Apparently, upon entry the CGA will send each player a set of alternative spikes. Otherwise, players must wear spikeless golf shoes, tennis shoes, or other soft-soled shoes.

Say what you like about spike alternatives in general, but superintendents have every reason to like the idea.

Greens aren't chewed up at nearly the same rate and Poa annua doesn't weasel its way onto unsuspecting golf courses.

There remain some legitimate questions about spike alternatives — namely, slippage on wet inclines and the liability a course might incur.

But several ritzy clubs have

already banned traditional spikes and only more will follow.

It's interesting to note there has been some resistance to spike alternatives in various consumer golf magazines. However, most of it has centered around the author's attachment to the "plinkety-plinkety" sound spikes make on concrete and bathroom tile. Puh-leeze! If you can't come up with anything more compelling, don't bother raising the subject.

...

The dust has cleared since San Francisco, where the Golf Course Superintendents Association of America (GCSAA) held its first conference and show with the significant financial backing of several golf industry corporations.

GCSAA Chief Executive Officer Steve Mona said his members liked the new approach and attendees can expect more corporate-sponsored events down the road.

"We got very good reviews on the corporate involvement at the San Francisco show and we're taking that as a mandate that we can continue with them," said Mona. "The corollary to that is that we could possibly see more in the future."

"If we had received a hue and cry from our members, our attitude would be different. We don't want to offend the sensibilities of our members. But because we got good reviews, I feel comfortable saying we have a clear mandate to continue and look at other opportunities."

Video workshop targets performance

KOHLER, Wis. — The "Superintendent's Video Workshop," a video training series designed to enhance staff training and managerial skills for golf course superintendents, has released a new training workshop to teach managers how to get consistent peak performance and enthusiasm from employees.

Videotaped at Blackwolf Run here, "Bringing Out the Best in the People You Manage" features noted golf industry GCSAA training specialist, Gerry Sweda, with one of his most popular new seminars. Sweda shares secrets and practical tips for motivating employees to care as much about the quality of their work as managers do. Manager workbooks help superintendents implement their own unique program.

SVW training workshops are developed by video training experts, EPIC of Wisconsin, and by renowned superintendent, Paul R. Latshaw, who is currently preparing to host his 4th major U.S. tournament.

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Call them 'medicines,' not pesticides, Vargas urges

By MARK LESLIE

OTTAWA — Saying pesticides applied to turfgrass are in many cases less toxic than foods and medicines people ingest every day, Dr. Joseph Vargas told golf course superintendents the public debate is ill-focused.

"The debate today is over whether we ought to be using synthetic pesticides," he said. "The debate that ought to be enjoined is, should we be using synthetic pesticides, and limiting the last spray to reduce the residue that is on the crop with the ability to wipe this pesticide off

the outside of the crop? Or should we be trying to produce naturally organic foods that can be grown without pesticides but which contain natural pesticides and toxins?"

"For all the fear mongering about pesticides, they can't find a victim to bring onto center stage," the Michigan State University professor of botany and plant pathology told the Canadian Golf Superintendents Association Conference.

"The biggest mistake we ever made was calling things we use to control plant diseases 'pesticides,' while people who use things to control human diseases call them 'medicine,'" he said. "It doesn't matter if you are controlling a bacterial disease in a person or on a plant, you use a bactericide. It doesn't matter if you are controlling a fungal disease on a plant or on a person, you are using a fungicide. But, unfortunately, when we use them on a plant we call them pesticides."

"When we use the same products on people we call them medicine. And there is a perception that medicines are good and pesticides are bad, when in reality they are oftentimes the same chemistry."

He said, for example:

- Pneumonia, strep throat, tuberculosis controlled by antibiotics like streptomycin and oxytetracycline. You put these materials in your body through your digestive tract and throughout your veins. Yet, we use the same materials on bacteria wilt and you are required to wear a respirator and protective clothing.

- Micosin and miconazol, two ingredients in the turf fungicide Banner, are also active ingredients for treating athlete's foot, jock itch and vaginal yeast infection. "[Golfers] ask, 'Is it all right to walk on the golf course after you've sprayed Banner out there?' and think nothing of spraying or rubbing the same chemistry on sensitive parts of our bodies," Vargas asked.

- Triazole chemistry was first used solely for human medicine, and "the ones that weren't as active on the human fungi they used on agricultural crops — all the same chemistry, yet one is considered bad and one good," he said.

- Athlete's foot is a fungicide. And if you have head and body lice, you control them with the same miticide that is used in agricultural and ornamental crops.

- Carbaryl is used in the insecticide



Sevin to control cutworms, grubs and ants — and also in products to control ticks and fleas on dogs. "Again, that's considered good because it's dog spray," Vargas said. "And people will ask, 'You just sprayed my lawn. Is it safe to let my dog or cat out there?'"

- When used to control spider mites on ornamentals, lindane is considered a miticide or pesticide. Yet when a doctor treats body lice with Quell, it is 1 percent lindane in hand cream.

Vargas added that some pesticides are very toxic while some are not, and herbicides are much safer. Referring to LD50 — the chemical dosage that will kill or control 50 percent of the population of a pest — he said: "We do not have a fungicide with an LD50 lower than caffeine... We have one fungicide more toxic than aspirin, four fungicides more toxic than salt, and six more toxic than ethyl alcohol."

While saying he was not painting a picture of pesticides as always safe, Vargas said the media and public attention paid them has been excessive.

Drawing on Dr. Bruce Ames' research at University of California-Berkeley — which concluded that 99 percent of the pesticides the public consumes are naturally occurring, Vargas said: "They isolated 42 toxins from plants. Twenty were found to be carcinogenic [cancer-causing]. If you took this natural chemical out of a tomato plant or broccoli plant, isolated it, remanufactured it and tried to register it as a pesticide you could not do it because it is a carcinogen."

"Yet every day you ingest them and people keep clamoring for resistant plants so that we don't have to use synthetic pesticides on them."

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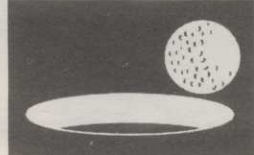
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CIRCLE #125

Families of Fungicides for Turfgrass

Arranged by J.W. RIMELSPACH and T.K. DANNEBERGER

Chemical Family: Dithiocarbamates

Common Name:

Maneb

Zineb

Mancozeb

Thiram

Trade Names:(+)

Dithane FZ, Dithane M-22

Dithane Z-78, Zineb

Fore, Formec, Lesco 4,

Dithane M-45, Protect T/O

Spotrete

Comments:

These types of fungicides have broad spectrum control properties and are used as protectants.

Chemical Family: Dicarboximides

Iprodione

Chipco 26019, Proturf Fungicide VI

Vinclozolin

Vorlan, Touche', Curalan

These fungicides were developed in the mid-1970s and are locally systemic in nature. These fungicides are considered to have a broad spectrum of control. Fungal resistance has been reported for this group.

Chemical Family: Benzimidazoles

Benomyl

Rockland, Lebanon Fungicide Type B

Thiophanite-methyl

Fungo 50, Cleary's 3336

Benomyl became available in the late 1960s. These fungicides are characterized by acropetal (upward) transport and have had reported cases of fungal resistance.

Chemical Family: Sterol Inhibitors

Fenarimol

Rubigan

Triademefon

Bayleton

Propiconazole

Banner

Cyproconazole

Sentinel

Additional Fungicides. . . in different chemical families

Anilazine

Dyrene, Lescorene, Lofts Lawn Fungicide

Chlorothalonil

Daconil 2787, Lebanon Type Fungicide D

Flutolanil

ProStar

PCNB

(pentachloronitrobenzine)

Terraclor, Turfcide, Scotts. FFII, PCNB
Resistance has not been reported with

Pythium Controlling Fungicides. . . in different chemical families

Metalaxyl

Subdue, Proturf Pythium Control

Propamocarb

Banol

Fosetyl Aluminum

Aliette

Cholorneb

Teremec SP, Proturf Fungicide II

Etridiazol

Koban, Terrazole

This group of fungicides is the newest chemistry to be developed. The group has a broad spectrum control range and is acropetal (upward) systemic. At times, also referred to as DMI's (demethylation-inhibitors)

Listed below are important fungicides that give generally broad spectrum control. Since these compounds represents different chemical groups, they are bunched together here. They are protectant type fungicides that do not have systemic activity (however) PCNB may be locally systemic).

these protectants.

Few diseases, if any, besides the pythium fungi or closely related fungi (water molds phycomycetes like yellow tuft), are controlled. Tersan SP and Koban are effective for only a few days. Subdue and Banol have up to 4 weeks of control (2-3 weeks more reliable). Aliette is an interesting compound since it did not originally appear to have fungicidal activity, but conveys greater host resistance and a true systemic movement both up and down the plant.

*Adapted from: *Turfgrass Ecology and Management* by T.K. Danneberger

+Product list by Trade Name may not be all inclusive

Davies' testimony: safety measures can transform into savings

Continued from page 1

you are supposed to do — not out of fear, but because it's the right thing to do," said Ron Smith, president of Sports Club Management, Inc. in Braintree, Mass., who consults with businesses on compliance with OSHA and risk-management issues. "Even if OSHA doesn't catch you [in non-compliance], if an employee files a lawsuit, the fact that you're not in compliance can come back to bite you... It only takes one

disgruntled employee."

"OSHA is not out there looking for golf courses, but should they be there investigating a death or injury, or if you get the lucky draw [for an inspection], they can be severe," said Burt McKee, vice president of environmental regulatory services for United Agri-Products in Tampa, Fla.

McKee told of a course where a man had died when the tractor he was operating overturned on him and he

drowned in a pond. "OSHA checked over the entire shop," he said. "They found that the grinders were out of adjustment and fined the course \$1,350 each for the two grinding wheels."

When he was president of the state and Southern California golf course superintendents associations, Davies was involved in government regulations. "The biggest service I thought we could offer our members was to

bring them up to date and help them put programs together to get into compliance," Davies said.

"I always tell [club owners] to plan on a 50- to 100-year mentality. When you look at something — especially concerning safety — there is no reason not to do things with a long-term perspective. Do it right and you don't have to worry about accidents."

Smith said golf courses he has consulted consistently

fail in respiratory protection issues, and in some cases hearing conservation.

Yet, "the majority of violations OSHA writes on golf courses are due to HazCom [hazardous communications] violations," said Scott Bell of Bent Pine Golf Club in Vero Beach, Fla. Bell is president of the Florida Golf Course Superintendents Association which, he said, is drafting "a 15-point plan on how to cover yourself. We hope to have it done in a year."

At Virginia CC, Davies asked workers' compensation insurance carriers who were bidding for the club's business for their suggestions to improve his maintenance complex. Then he carried them out.

"It made our staff really aware of hazards," he said. "We were concerned about it, so they were concerned. When we started, our workers' comp experience rating was at 118, 120 percent (the industry's average for claims being 100 percent). When I left, it was 65 percent. We found that a lot of accidents we'd had in the past were back injuries, so we set up rules to protect them."

Saying the first responsibility of his job is "always the safety of my staff," he said: "Ten years from now people won't remember how good or bad the course was on any day. But if someone was hurt, they will remember that."

Therefore these rules:

- People get hurt when they are tired, so less weight must be lifted at the end of the day than the beginning.
- Any time employees ask for help, they get it.
- Don't lift anything you're not comfortable lifting.
- Nobody can lift anything over 80 pounds without help.
- Nobody can lift anything over 50 pounds after lunch.
- Nobody need operate a piece of equipment they don't personally feel is safe in any respect.
- Hard hats, or bump hats, are always worn.
- Safety switches are never bypassed.
- Hearing protection is used.
- Guards are attached to every piece of equipment.
- Anybody can flag any machine. "They did it in writing and we had to respond in writing with what we were going to do to fix it. We always documented everything," Davies said.
- Everyone on staff receives respiratory and pesticide training even if they do not work in those areas — "so they will be comfortable with them."

"Don't look at the job as

Continued on next page

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CIRCLE #126

COMPREHENSIVE IS THE WORD FOR SAFETY, HEALTH PROGRAMS

Safety and health programs should be comprehensive, encompassing an employee emergency plan, fire, hearing and respiratory protection, accident signs and tags, medical services and first aid, portable fire extinguishers, automatic sprinkler systems, fixed extinguishing systems, fire detection systems, servicing of multi-piece and fixed-piece rim wheels, powered industrial trucks (forklifts), oxygen fuel and gas welding and cutting, arc welding and cutting, resistance welding, electrical safety regulations, the HazCom standard, wood-working tools, rollover protection for tractors, excavation general construction requirements, and guarding of field equipment.

Decibel monitoring can be crucial, especially for mower operators

Hearing conservation is a major issue at golf courses, the prime culprits being triplex mowers, weed-eaters and grinding wheels.

"Typically, the worry is with the guys who are mowing all day long. The newer mowers are real nice, and may be a nonfactor," said Ron Smith, president of Sports Club Management, Inc. in Braintree, Mass. "Some of the older ones are bad, as are most of the triplex mowers. Their noise levels are anywhere from 92 to 97 decibels."

"Once you get to 90 decibels there is a sliding scale of how much you can be exposed without hearing protection," he added. "If you have to speak over normal conversational tones to be heard, you are around 90 decibels. You are allowed to be

at an average of 90 decibels for the whole day. At 95 decibels (that's like a 10-percent increase), for only four hours. At 100 decibels you can only be exposed for two hours."

Florida Golf Course Superintendent Association President Scott Bell said: "We supply all our employees with two types of hearing protection and require that they use at least one of the two."

Smith suggested superintendents run noise tests using noise meters (available for \$60-\$70) and audio-metric badges that absorb noise.

Also, crews should undergo hearing tests once a year. "It's a chronic disability that erodes your hearing capacity over time," he said. Providing protection is a minor cost that can provide big savings later.

SEPARATE PESTICIDES FROM OTHER BUILDINGS

More superintendents are making one improvement: storing the pesticides in a separate structure. The idea, said superintendent Ray Davies, "is, making sure if we did have a fire, the fire department would put it out."

Indeed, Davies found that the best way to get good advice is to ask the regulators to inspect your facility. Firefighters recommended Davies move the petroleum products and pesticides from the shop. It cost about \$4,000."

OSHA's Top 25 general industry violations

Oct. 1, 1993 through Sept. 30, 1994

No.	Subject	Total Violations	Initial Penalty
1.	Written hazard communication program	5,826	\$3,170,303
2.	OSHA 200 log & summary	3,941	1,586,740
3.	Hazard communication-Employee info	3,834	2,427,512
4.	Hazard communication-Labeling	3,367	1,194,210
5.	Posting job safety & health protection poster	2,895	656,205
6.	Access to employee exposure & med. records	2,166	136,205
7.	Lockout/tagout-Energy control program	1,960	1,926,388
8.	Lockout/tagout-Energy control procedures	1,951	2,953,552
9.	Machine guarding-Types of guarding	1,886	2,969,327
10.	Abrasive wheel machinery-Exposure adjustment/safety guards	1,735	878,290
11.	Hazard communication-MSDS	1,626	646,800
12.	First aid-Eye wash/emergency shower facilities	1,583	1,410,260
13.	Lockout/tagout-Training & communication	1,485	8,780,450
14.	Mechanical power transmission-Pulley guarding	1,376	1,123,733
15.	Wiring methods-Flexible cords & cables	1,228	610,493
16.	Machine guarding-Point of operation guarding	1,187	1,973,635
17.	Abrasive wheel machinery-Work rests	1,156	715,655
18.	Guarding floor openings, platforms & runways	1,113	1,520,348
19.	Electric-Guarding of live parts	1,059	1,093,602
20.	Electric-Wiring/conductor protection	1,020	627,905
21.	Personal protective equipment-Provide, use & maintain	1,008	1,444,160
22.	Hazard communication-MSDS maintenance & availability	1,003	488,650
23.	Electric-Wiring methods/identification	994	469,265
24.	Blood-borne pathogens-Exposure control plan	987	795,375
25.	OSH Act-General duty clause (employer must provide a safe workplace for all employees)	981	3,583,852

Source: OSHA Computerized Information System

* — The list of OSHA 1910 general industry citations also contained ten 1926 construction industry violations not included on this chart.

Turn safety into savings

Continued from previous page

iron, but as people," Davies urged his colleagues. "Superintendents will spend hours deciding on a mower, yet will hire people in 10 minutes. The machine might cost \$15,000 or \$20,000 and will last 15 years. You pay the person \$20,000 or \$25,000 a year. That's 10-to-one the person over the machine.

"It's important to take a lot of care in choosing and training people."

When contractors come on Davies' course, they are given a list of various hazards — from bee stings to gopher holes, and foxes and squirrels carrying diseases.

Training is also important, Davies said, suggesting a lot of

videotapes and inviting outside experts to speak.

"Unless you're documenting [training], it does not exist," McKee said. "Using a camera is the best way to document. In addition to having employees sign off that they were given training and had the opportunity to ask questions, take pictures — pictures of people wearing spray protection, wearing safety belts, whatever it is that that person was trained in."

In some areas, you never know when extra training may pay off. One week after his club had 20 employees, including six on the maintenance staff, undergo CPR and first aid training, one of the crew performed the Heimlich Method on a choking friend. "He would have died," Davies said. "Can you put a value on that?"

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CIRCLE #127

SMILE!

Supers' candid cameras can be crucial to job

By J. BARRY MOTHES

You don't have to be the next Ansel Adams. But understanding how and when to use a camera on and around the golf course could make you a far more effective superintendent.

As the old cliché goes, a picture is worth a thousand words, and this can be especially true when it comes to a golf course. Good, clear, well-taken photographs and slides can provide crucial information and documentation for everything from turf diseases to irrigation projects and plantings.

They can be a valuable tool when meeting with greens committees, club managers, and even insurance companies.

"It's saved me," says Pat Lewis, superintendent at the private Donald Ross-designed Portland Country Club on the southern Maine coast. "It's given my greens committee a better outlook on my job. When they look at photographs

"I've taken it shows more than a written report that we've made tremendous improvements to the course. It gives me the authority to continue what we're doing."

Lewis says he started using a camera as part of the job 11 years ago. He now keeps it (a Pentax with manual and automatic capabilities) and several rolls of color film handy in his desk in the maintenance shop to carry with him on his daily rounds.

Last summer, Lewis used the camera to record an ongoing irrigation project, several brush and undergrowth clearings, two major tee construction

projects, and hundreds of plantings on the course and around the clubhouse. He and his staff also used the camera to capture the broad variety of birds, animals, plants, trees and bushes on the grounds as part of an application to the Audubon Society's Cooperative Golf Course Sanctuary program. Thanks partly to the photographs, the club has been certified in four of the six categories.

Several camera-toting superintendents say photographs and slides can be particularly effective for:

- tracking and documenting turf diseases over short, medium or long periods of times.
- documenting the "before" and "after" for golf course construction, renovation or restructuring projects like greens, bunkers, tees, bridges, paths and plantings.
- documenting changes in sunlight on important areas like greens.
- tracking "works-in-progress," especially projects like irrigation that are eventually buried beyond sight.
- documenting machinery and valuable equipment.

Terry Buchen says he takes a picture of "everything" he and his crew use so that he can provide better evidence of ownership in case of damages or theft for insurance purposes.

Buchen, a 24-year veteran superintendent who says he "always has a camera" with him and keeps two cameras ready at all times (one with print film,

Continued on next page



Using a camera can record such problems as this strip of dark green fairway. It was caused by a natural source of nitrogen.

Choosing the correct camera is pivotal to superintendent's success

By J. BARRY MOTHES

Choosing a new camera can be confusing business. But understanding what kind of camera you need is the best way to start making photography work for you as a golf course superintendent.

The "point and shoot" cameras, the small, pocket-size automatics that are popular tourist cameras, are obviously easy to use. But except for increasingly sophisticated models made by top-of-the-line manufacturers like Nikon, Olympus

and even Leica — those that start at \$200 and up with zoom lenses — these are not really the best camera for the job. If you insist on the convenience and size of these cameras, make sure you're looking at the \$200 price point and above.

Otherwise, your prints will probably not do justice to your hard work. Beyond that, most camera dealers don't even recommend shooting slide film in "point-and-shoot" situations except for higher-end models.

Probably the best type of camera, for overall clarity, quality and flexibility, is a single-lens reflex camera. Automatic "SLRs" start at about \$350 with the average price somewhere between \$400 and \$500.

Almost all camera manufacturers make a single-lens reflex camera with an automatic exposure function, which takes away the possibility of error.

Most of these cameras now come with automatic focusing and zoom lenses that

give you all sorts of options depending on the demands of the subject. Once you have an "SLR" you can build a collection of lenses for different situations, or rely on one zoom with more range than you could get on a small point-and-shoot.

For the knowledgeable purist — or budding purist — you might consider a simple manual SLR camera or at least learning the manual function available on most automatics.

This requires you to choose your own aperture and shutter speed, the two essential variables when taking a photograph the manual way. Aperture determines how much light will be let in to expose the negative, shutter speed determines how long that amount of light will be let in (usually somewhere between 1/50th to 1/500th of a second).

There are several advantages to knowing how to take pictures manually with a single-lens reflex camera. Once you understand the basic principles of photography, you can then adjust the camera to take the best possible photograph in every instance, rather than relying on the average "decisions" the camera makes when it is in the automatic mode.

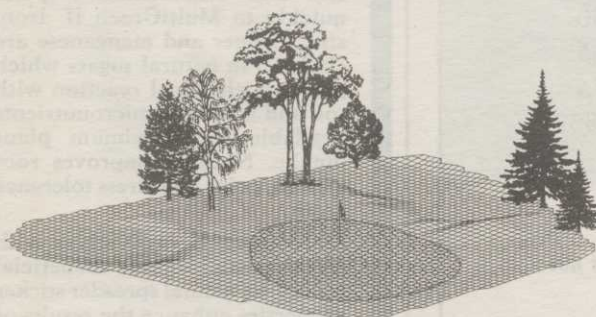
You can take pictures that will crisply identify subjects in the foreground, mid-ground or background, or take pictures of subjects in areas that would be considered too "dark" in the automatic mode.

As far as buying print or slide film, just remember, assuming there's enough natural light, the slower the film speed the better the fidelity.

Good "slower" film for golf course photography would be 100 ASA to 200 ASA. The best way to find the right film is experiment — fire off two different rolls of film of the same subject or subjects one right after another — and compare the results.

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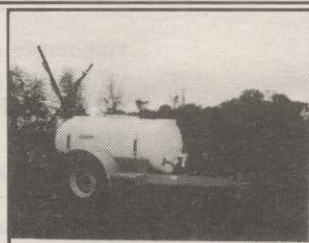
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LITERATURE

EARTH-SAFE
DISEASE REMEDIES

POWNA, Vt. — Don't be deceived by its title, the new book *"The Gardener's Guide to Plant Diseases"* contains a number of techniques and tips for dealing with problems encountered on the golf course.

From airborne to plant pathogens, from viruses to bacteria, author Barbara Pleasant covers a gamut of problems — and offers "earth-safe remedies." While turfgrass problems are not on her menu, many horticultural concerns are.

Each chapter begins with a general discussion of the "culprits," followed by an alphabetical listing of diseases associated with them.

The book is available in paperback for \$12.95 at bookstores, or from the publisher for \$14.90, by contacting Storey Communications, Inc., P.O. Box 445, Pownal, Vt. 05261; 800-441-5700.

SEED-TO-BLOOM SIMPLIFIED

POWNA, Vt. — From abronia to zinnia, author Eileen Powell has filled in the blanks on sowing, germinating, planting, maintaining and propagating every plant you might landscape a golf course with in a new book from Storey Communications.

"From Seed to Bloom" is a comprehensive encyclopedic look at more than 500 annuals, perennials and even herbs. Powell is the proprietor of Secret Gardens Landscaping and lives in Arlington, Va. She holds a certificate in landscape design from George Washington University.

The book is available for \$18.95 in bookstores in paperback, or for \$20.90 from Storey Communications, Inc., P.O. Box 445, Pownal, Vt. 05261; 800-441-5700.

Leslie comment: A little praise, a little censure

Continued from page 12

Pennington absorbed, or the time, energy and frustration.

This was a pure and unadulterated case supporting Lewis H. Lapham's claim that "the supply of government exceeds the demand."

As the epicenter of an earthquake lies at the core of trauma on this earth, so Washington, D.C., is indeed the epicenter of some very queer, tumultuous behavior. We can only hope and pray the new Congress does affect change. It is apparently trying. Witness legislative measures that would require a reasonable cost-benefit ratio before new laws are enacted, and that lawmakers stay clear of bills that would give bureaucrats reign over such workplace issues as ergonomics.

This relates to golf from the clubhouse (remember the states legislating how much space ladies' rooms should have compared to men's rooms?) to the fairway (remember the no-chemical edict to Squaw Creek in California?).

And I recall former Wild Dunes owner David Lucas declaring that our government is "tyranny by legislative fiat and special-interest groups." Lucas, who formed the Council on Property Rights, can attest to the fact that the Louisiana Purchase of 1803 was merely a 19th-century prelude to 20th-century land grabs by enviro-driven government. He needed to go to the U.S. Supreme Court to beat his own state of South Carolina, which had tried to prevent him from building a home on beach-front property — though it was flanked on either side by homes.

Yet, I would not be so unkind as to agree with Honore de Balzac's assessment: "Bureaucracy is a giant mechanism operated by pygmies." Nor would I be so

brazen as to agree with Ludwig van Moses' statement: "Government is the only institution that can take a valuable commodity like paper and make it worthless by applying ink." Well, I'll agree with van Moses.

A how-to-go! to Augusta National superintendent Marsh Benson and Double Eagle Club superintendent Terry Buchen, a GCN contributing editor, for finishing 1-2 in the nation in conditioning, as judged by Golf Digest panelists. GD's Ron Whitten wrote: "Perfection, thy name is Augusta National. But among courses actually open for play during summer months, the surprise is Double Eagle near Columbus, Ohio. How plush is it? They run Stimpometer tests on the tees."

Wouldn't you like to trade places for a while with Masters Chairman Jack Stevens and Vice Chairman Joe Ford? They are members of both Augusta National and Double Eagle.

Following up in the Top 10 maintenance poll are Pine Valley, Muirfield Village in Ohio, Oakmont, Shadow Creek, Cypress Point, Merion's East Course, Inverness in Ohio and The Quarry at La Quinta, Calif.

Paul, we coulda loved ya'... Oh, well. Mentioning Paul Harvey's comparison of the U.S. Golf Association to the to-

bacco industry, a friend said, "That's like comparing nuns to Nazis."

What's in a name?

Speaking at the Canadian Golf Course Superintendents Association annual conference, Dr. Joe Vargas said: "The biggest mistake we ever made was that we started calling things we used to control plant diseases 'pesticides.' People who use things to control human diseases call them 'medicine.' It doesn't matter that you are controlling a bacterial disease in a person or on a plant, you use a bactericide. It doesn't matter if you are controlling a fungal disease on a plant or on a person, you are using a fungicide. But, unfortunately, when we use them on a plant we call them pesticides... And there is a perception out there that medicines are good and pesticides are bad, when in reality they are oftentimes the same chemistry."

Hints aside from Vargas in Ottawa:

- When putting fertilizer in a sand-type environment, use either a slow-release fertilizer or one that is soluble where you are putting down limited amounts, so that the fibrous root system can pick it up.

- Thatch is very good at preventing pesticide leaching. "Remember all these years we told you thatch was bad?" he said "Well, now we're telling you thatch is good."

Never stop taking pictures, Lewis says

Continued from previous page

the other with slide film), says slides are ideal for presentations to greens committees, especially if you can get two slide projectors working side-by-side.

A good place to begin or improve your understanding of a camera, as Buchen himself did, is in an introductory photography class at your local college, museum or vocational-technical school.

A typical introductory class, where you might even learn to develop and print your own film (black and white), might meet once or twice a week for about 12 weeks.

You might be surprised at just how much you can learn, and how exciting, and practical, photography can be.

As Buchen says, once you get the camera working, there's practically nothing on or around your golf course that isn't worth taking a picture of. Buchen says he shoots at least one 36-exposure roll of film a week.

And it doesn't have to be all business. Lewis, in Portland, Maine, and his wife, Linda, take candid shots of the grounds crew staff throughout each summer and then lay them out in a framed display in the maintenance shop as a memento.

"One thing I've learned over the years is never stop taking pictures," says Lewis. "There were a couple years I didn't take as many and I wished I had."

The best times of day to take your pictures are early morning (sunrise to 9 a.m.) and late afternoon (4 p.m. to dusk), when the sunlight is angled instead of directly overhead, and not too bright.

"The shadows are the best at those times," says Buchen, "and shadows make everything. I like to take pictures sometimes real early in the morning, with the dew still on the course and no vehicle tracks anywhere."

Another sensible tip Buchen passed along was placing a pen or pencil or a coin in your subject areas, like a "trouble" spot on a green for example, to help give a sense of size and perspective to your photograph.

Whether it's for prints or slides, for the scrapbook or the slide projector, photography can play a key role in understanding and explaining the tasks and challenges facing a golf course superintendent and his or her staff every day.

"To really be thorough," says Buchen, "it's the best way to make a presentation. It's a lot of work. But hard work pays off."

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CIRCLE #130

North Central



PURDUE PROGRAMS BENEFIT

INDIANAPOLIS, Ind. — Four golf course superintendents associations in Indiana presented checks totaling \$24,500 to the Purdue University Turf Program to support turfgrass research and education, during the Midwest Turf Expo here this winter.

The Midwest Regional Turf Foundation presented a check for \$70,000 to the Purdue Department of Agronomy for annual support of the turf program and a check for \$50,000 to the College of Agriculture for development of the Purdue Turf Research and Diagnostic Center.

Northeast

BREARLY REGION'S PRESIDENT

At the annual meeting of the Golf Course Superintendents Association of New England held at Franklin (Mass.) Country Club, members elected their officers for 1995.

Edward L. Brearly of Dahn Tibbetts Golf Design/Construction was elected president; Robert DiRico of Brae Burn CC, vice president; Kevin Osgood of Newton Commonwealth GC, secretary; and Robert Ruszala of Hickory Ridge CC, treasurer; Stephen Chiavaroli is past president.

Michael Hermanson of Gardner Municipal GC will serve as golf chairman. Michael Nagle of Worcester CC is newsletter editor, and James R. Fitzroy of Presidents GC is the new finance chairman.

James B. Conant of King's Way GC was elected for a three-year term as trustee and will serve with existing trustees John Hassett of Mt. Pleasant CC and Scott Reynolds of Charles River.

The Golf Course Superintendents Association of New England also announced it has donated more than \$80,000 to regional universities for turfgrass research.

NEW JERSEY HONORS CAMERON

The Golf Course Superintendents Association of New Jersey (GCSANJ) has presented its 1994 Distinguished Service Award to Maurice (Skip) Cameron of Canoe Brook Country Club in Summit.

Cameron has been long active in the GCSANJ, serving as president in 1973-74.

GCSANJ SCHOLARSHIPS

The Golf Course Superintendents Association of New Jersey (GCSANJ) scholarships have

been presented to Rutgers University students Joshua H. Honing, Michael Candeloro and Jeffery Steager.

Honing, president of the Cook College Chapter of the Soil & Water Conservation Society of America, and Candeloro are completing their degrees in plant science. Assistant superintendent at Stone Harbor Golf Club, Steager is enrolled in the two-year turf program.

NEW PESTICIDE REGS POSTPONED

TRENTON, N.J. — The New Jersey Department of Environmental Protection has postponed

any changes in the pesticide control code, with the exception of Environmental Protection Agency-mandated changes in worker protection which applies to farm workers.

Public hearings are expected to be held late in the year, leading to changes in 1996.

VAN FLEET EARNS CERTIFICATION

CAPE MAY COURT HOUSE, N.J. — Kenneth S. Van Fleet, superintendent at Avalon Golf Club, has been designated a certified golf course superintendent by the Golf Course Superintendents Association of America.

Van Fleet has been at Avalon since 1983.

West

STUDENTS GIVEN SCHOLARSHIPS

The Golf Course Superintendents Association of Northern California has presented a total of \$4,000 in scholarship money to six students.

Raised annually from a golf tournament, golf fee surcharges and other donations, the scholarships were given to Butte College sophomore ornamental horticulture major John Farley; Penn State University freshman

turfgrass management major Joseph Smythe; Yuba College freshman environmental horticulture major Kim Shell; American River College freshman horticulture major Harmish Choung; Santa Rosa Junior College sophomore nursery production and ornamental horticulture major Patrick Darrah; and Cal Poly junior ornamental horticulture and turfgrass management major Dale Engman.



TURF DISEASES HAVE BAYLETON FOR WE

To stop enemy turf diseases from gaining a beachhead on your course, do what golf course superintendents have been doing for 15 years. Apply BAYLETON® Turf and Ornamental Fungicide. No other fungicide on the market has the proven history of preventing the toughest turf diseases.

Whether the adversary is summer patch, dollar spot, anthracnose or any number of other major turf diseases, BAYLETON consistently delivers unsurpassed control. And it's systemic for long residual. So after the initial application, BAYLETON has just begun to fight.

It's a good tactic to apply BAYLETON over your entire course. By applying it on your fairways,

Mountains



COLORADO GOES SPIKELESS

ROCKVILLE, Md. — The Colorado Golf Association has scheduled four tournaments in which the use of metal spikes

has been prohibited. Alternative cleats will be provided.

According to Brian Golden, vice president of sales and marketing for Softspikes Inc., the Colorado Golf Association will provide Softspikes cleats for all those participating in the events: June 5-8 at Bear Creek Golf Club in Denver; Sept. 12-14 at Battlement Mesa Golf Club in Battlement Mesa; Sept. 16-17 at Sheraton Steamboat Golf Club in Steamboat Springs; and Sept. 22-24 at Fort Collins Country Club.

According to the CGA's stated policy, players will not

be allowed to wear metal-spiked shoes.

Upon entry, the CGA will send each player a set of Softspikes cleats, which they may use to replace metal spikes. Otherwise, players must wear spikeless golf shoes, tennis shoes, or other soft-soled shoes.

"We're excited about Softspikes," says Ed Mate, assistant executive director of the Colorado Golf Association, which is based in Englewood. "We're on the bandwagon, and we feel that it's inevitable that golf will go in that direction. We want to be one of the leaders,

and that's why we've identified four of our tournaments to be spikeless."

Proponents of prohibiting metal spikes agree that spikeless tournaments are significant because they offer controlled circumstances in which to demonstrate the advantages of unblemished greens.

CACTUS & PINE SCHOLARSHIP

The Cactus and Pine Golf Course Superintendents Association has awarded a \$250 scholarship to Wilford Mortensen, who will attend Rutgers University's turfgrass program.

Mortensen was recommended by Dan DeVere of Flagstaff Golf Maintenance Co., who he has worked for as a general laborer, advancing to assistant at Elden Hills Golf Course. He will return to Flagstaff between college sessions.

Southeast

GEORGIA TURFGRASS

ASSOCIATION ELECTS OFFICERS

Mark Prinster has been elected president, succeeding Joe O'Donnell as head of a new slate of officers for the 800-member Georgia Turfgrass Association (GTA).

Joining Prinster are Vice President Ken Morrow, Secretary Jeff Dobbs and Treasurer Mark Esoda.

GTA directors are Sarah Bundschuh, Paul Greenwell, Robert Mroz, William Shirley and Mike Waldron.

GTA HONORS BURTON

The Georgia Turfgrass Association (GTA) has bestowed Dr. Glenn Burton with its highest honor, the Lifetime Achievement Award, and made him the first inductee into the Turfgrass Hall of Fame.

Meeting at the 25th annual Georgia Turfgrass Conference and Show, GTA recognized the impact of the University of Georgia professor's bentgrass breeding program on the turf industry.

The GTA also recognized Jeremy Legg of the University of Georgia as Student of the Year; Post Landscape Services and Todd Tibbitts as Landscape Company of the Year; and Patten Seed/Super Sod and William Roquemore as Sod Producer of the Year; and Ken Morrow of Sod Atlanta as Professional of the Year.

Mark Hoban accepted the award for The Standard Club as Golf Course of the Year.

TPI REPORTS HIGH ATTENDANCE

The Midwinter Conference of the Turfgrass Producers International (TPI) in Lake Buena Vista, Fla. was attended by nearly 650 people, a five-year high. Attendees from 43 states and the countries of Australia, Canada, England, The Netherlands and Norway participated in education sessions.

TPI's Summer Convention and Field Days will be hosted in Omaha, Neb., July 26-28.

For further information on the TPI Midwinter Conference, Summer Convention and Field Days, or for membership information, please contact Tom Ford at Turfgrass Producers International, 1855-A Hicks Road, Rolling Meadows, Ill. 60008; Tel. 708-705-9898, 1-800-405-TURF (8873).

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NEW CHEMISTRY ROLL CALL

What supers like, according to Green Section agronomists

By PETER BLAIS

United States Golf Association Green Section agronomists make thousands of annual visits to U.S. golf courses, putting them in a position to discuss with superintendents what new turf chemicals seem to be working and which need more work.

While forbidden from endorsing any specific item, a handful agreed to discuss products that are proving popular with golf course superintendents.

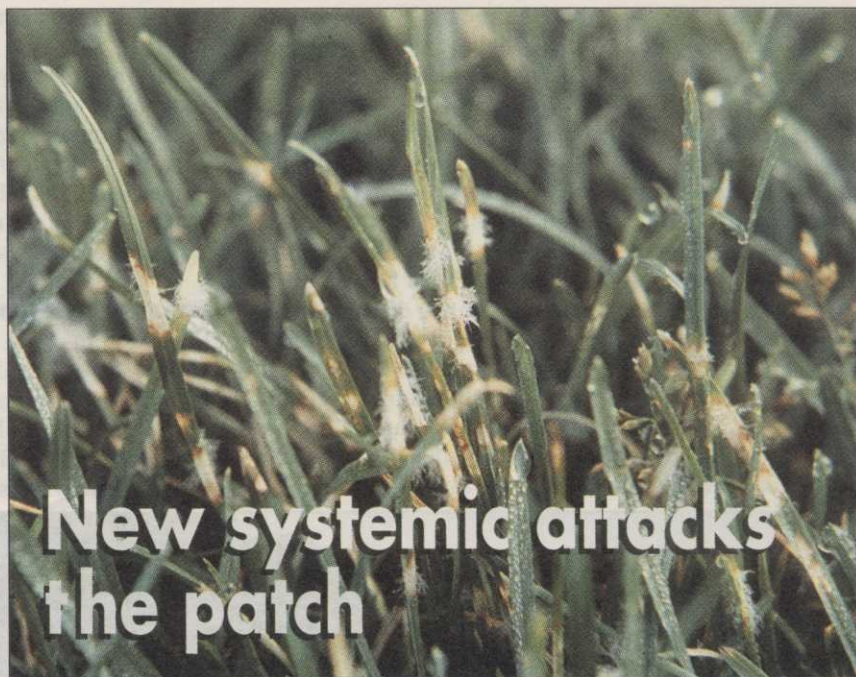
Bob Brame, director of the North Central Region, noted the acceptance of the plant-growth regulator Primo. Ciba introduced the product roughly a year ago. It differs from other Gibberellic Acid inhibitors in that it enters the GA production cycle later in the growth process, Brame said. Yet it still effectively inhibits grass cell elongation.

Brame also explained that, unlike other GA inhibitors, Primo application only affects existing turf. The foliar application becomes inactive after reaching the soil. That makes Primo effective for overseeding programs with new bentgrasses, slowing the growth of existing turf while giving the newly planted varieties a chance to take hold, he added.

While organics are not new, superintendents are revisiting natural materials like Milorganite and seaweed extracts as a way to reduce chemical dependence. "A lot of questions remain about their effectiveness," Brame said. "But they are often an important part of an overall turf management program."

Merit, a nicotine-based insecticide

Continued on page 41



New systemic attacks the patch

Look for highs today in the mid- to upper-80s, with overnight lows in the 70s. There's a 95 percent chance we'll see some showers today and tomorrow, with the humidity level rising to a stifling 90 percent.

Conditions like these might be unpleasant for golfers, but weather forecasts are an even greater concern to superintendents. As the temperature and humidity begin to rise, the inevitable environmental conditions favoring turf diseases aren't far behind. This is the time of year when superintendents in many regions must decide how to prevent costly and damaging diseases from putting them on the hot seat.

One solution is a new systemic fungicide introduced to the turf market just last year. Cyproconazole, classified as a demethylation inhibitor (DMI), or sterol inhibitor (SI), has received good reviews in both trials and widespread use. Sandoz Agro is the only company manufacturing

cyproconazole. Other broad-spectrum systemics include Banner by Ciba, Bayleton by Bayer, Chipco 26019 by Rhone-Poulenc, Cleary 3336 by W.A. Cleary, Rubigan by DowElanco, and Tersan 1991 by Marshall Thomas.

Marketed under the name of Sentinel 40WG by Sandoz Agro, Inc., cyproconazole is designed to be effective at controlling a broad spectrum of diseases, including brown patch, dollar spot and summer patch: three of the most economically threatening diseases on turf.

Although the three diseases are caused by different pathogens, stimulated by different conditions and characterized by different symptoms, there is one common thread between them: They are all difficult to control.

While DMIs are some of the most commonly used fungicides, cyproconazole is the most systemic product available. "A comparatively small amount of cyproconazole can do the same job as competitive fungicides for

Continued on page 40



IGR advances take center stage at Ottawa conference

By MARK LESLIE

OTTAWA — Citing little on the horizon in some areas of research but encouraging development of insect-growth regulators (IGR), bacterial toxins and natural fungi, Dr. Harry Niemczyk told Canadian superintendents here "the pot is boiling" to make Integrated Pest Management (IPM) stew.

Niemczyk, professor emeritus of entomology at Ohio State University, told the Canadian Golf Superintendents Association annual conference, "The amount of information and material you have to integrate as far as IPM is concerned is limited at best."

But, various types of preventive and curative measures are available and are being developed by forward-thinking companies and scientists.

Things that will determine what superintendents do and how they do it, Niemczyk said, are budget; course standards; governmental influence; and superintendent philosophy.

"What approach you take in this matter, these are the things that steer the ship," Niemczyk said.

Prevention should be the key to an IPM program, he said, adding that chemical, biological and cultural approaches should be integrated, based on some system of monitoring, observation and recording what's on the golf course.

Niemczyk presented a rundown on the outlook for pathogenic nematodes, bac-

Continued on page 39

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CIRCLE #132

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CIRCLE #133

New systemic from R&H

Eagle, a new systemic fungicide from Rohm & Haas Co., has been registered for use on turf by the Environmental Protection Agency. Eagle provides protective and curative control of 15 tough turfgrass diseases, including brown patch, dollar spot, summer patch, melting out, red thread and necrotic ring spot. The product is based on the new next-generation demethylation inhibitor (DMI) chemistry that retards fungus reproduction. Eagle contains no solvents, unlike other systemic fungicides that can sometimes injure turf roots and shoots, the company claims. It also does not cause turfgrass to thicken and slow greens. Eagle is designed to control dollar spot for up to 28 days following application, even in hot, humid weather conditions. For more information, contact Rohm & Haas at 215-592-3000.

CIRCLE #306

Merit lowers use rate

Bayer (formerly Miles) has released Merit 75 WSP, a broad-spectrum systemic insecticide designed to be effective against turf and ornamental insects at extremely low use rates. The active ingredient is imidacloprid, which belongs to the new chloronicotinyl class of chemicals. The recommended application rate of 0.3 lbs./acre is 85 to 96 percent lower than currently registered soil insecticides for use on turf, according to company literature. The primary mode of action is post-synaptic blockage of the nicotinic acetylcholine receptor sites of the insect nerve, disrupting overall operation of the insect's nervous system. For more information, call 816-242-2000.

CIRCLE #308

EPA okays Scimitar GC

The U.S. Environmental Protection Agency has registered Scimitar GC, an insecticide specially formulated for use on golf courses and turf. Manufactured by Zeneca Professional Products, Scimitar GC is a unique capsule suspension formulation that locks the active ingredient (a.i.), lambda-cyhalothrin, inside tiny polymer capsules. Unlike traditional suspension concentrate products that actually have particles of a.i. in a thin, water-based suspension, Scimitar GC contains polymer-encased a.i. in a thin, water-based suspension. It provides excellent performance against a broad spectrum of turf pests such as chinch bugs, mole crickets, sod webworms, bluegrass billbugs and fire ants, as well as landscape ornamental pests such as mites and aphids. For more information, contact Zeneca at 302-886-1000.

CIRCLE #310

Ciba weighs in with IGR

Ciba Turf & Ornamental Products has introduced Precision, an insect-growth regulator (IGR) that provides economical control of a number of insects in various settings. Precision controls whiteflies (sweet potato and greenhouse), soft scales, fungus gnats, shore flies and lepidopterous leafminers. It can be used on a variety of plants, landscape ornamentals, container-grown ornamentals and ground covers. As an IGR, Precision controls insects during the juvenile stages. Precision interrupts the normal molting cycles and prevents the insect from advancing to the next stage of development. For more information, contact Ciba at 910-547-1154.

CIRCLE #311

UHS unveils ESN slow-release fertilizer

United Horticultural Supply recently introduced ESN, a slow-release fertilizer that allows the release of nitrogen based on temperature patterns that regulate plant growth.

As temperatures cool and turfgrass growth and demands for nutrients diminish, ESN responds to the drop in temperature by restricting the release of nitrogen. Conversely, as temperatures warm and plant growth is stimulated, ESN increases the release of nitrogen.

ESN's release properties are controlled by an Exxon Corporate Laboratories-developed polymer membrane that surrounds a urea granule. Once applied to turfgrass and exposed to

moisture, the polymer membrane allows water to pass through and dissolve the inner nitrogen granule.

The liquefied nitrogen remains encapsulated within the elastic polymer membrane and will only be released when surrounding temperatures are sufficient for plant growth. A protective water dispersible and abrasion-resistant outer topcoat protects each ESN pearl from damage during blending, transportation and application. ESN is custom-formulated for maximum performance in different climatic zones throughout the U.S. For more information, contact UHS at 800-847-6147.

CIRCLE #307

Aquatrols introduces Primer 604

Aquatrols Corp. of America has introduced a new wetting agent, Primer 604. When used in a soil-water management program, Primer 604 prevents and corrects water repellency in thatch and soils. It also helps establish and maintain a water movement pattern of uniform downward and lateral flow that aids in uniform distribution of water and turf management chemicals throughout the root zone.

Primer reduces water-related problems such as dry spots, wet spots and uneven wetting and keeps tees and greens receptive to uniform water distribution for up to 45 days. For more information, call Aquatrols at 800-257-7797.

CIRCLE #309

PREVENT SUMMER PROBLEMS CAUSED BY WATER REPELLENCY!

UNTREATED

Summer stress conditions can prompt a rapid reduction in turf quality in tees, greens and fairways. By mid-summer, effects of extensive wilt, Localized Dry Spot (LDS) and turf decline are evident on this untreated tee (ladies tee box). Soil cores from symptomatic areas (inset) were powder dry, even after irrigation.



TREATED

Monthly applications of Primer 604 (started in late spring) on the men's tee box (of the same hole), showed superior turf quality. Even under conditions of severe summer stress, no afternoon wilt or LDS was observed. Soil cores from treated tee (inset) were uniformly moist, indicating improved penetration, infiltration and distribution of applied water (rainfall or irrigation).

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CIRCLE #134

Study: IGR proves effective vs. fire ants

GREENSBORO, N.C. — A recent test conducted at the U.S. Department of Agriculture Imported Fire Ant Station in Gulfport, Miss., showed 100-percent fire ant control over an 18-week period and gave enlightening insight into mound population dynamics.

The research project, led by Anne-Marie Callcott, measured the efficacy of Award, a fire ant bait containing the active ingredient fenoxycarb. It also determined how and when the insect growth regulator (IGR) treatment affects various ant life stages, or "castes," inhabiting the mound.

The study site was a six-acre field infested with a fire ant population that averaged 116 colonies per acre. Award was broadcast over the area at a rate of 1.5 lbs/acre on April 26, 1994. Check plots were left untreated in an adjacent field.

Prior to treatment, baseline fire ant populations were assessed in both areas by excavating five mounds from both the treated and untreated areas. The mound examinations determined the developmental stages of fire ants and the number of ants present. The stages identified are eggs, small larvae, worker pupae, sex larvae, sex pupae, minor workers, major workers, males, alate (winged) females and gravid (egg-bearing) queens. Award, which is impregnated on materials that are highly attractive to fire ants, works by infiltrating colony life in several ways. After it is picked up by foraging workers, Award is dispensed as food to the rest of colony, including the queen. After the queen ingests Award, she lays only eggs that don't develop into workers. In addition, alate female offspring do not produce viable eggs, so they cannot start new colonies.

Without replacements, the natural death rate of existing workers accelerates due to the increased workload. And, without workers to care for her, the queen dies, which leads to the mound's collapse. In this test, fire ant numbers and population dynamics were monitored from sample mounds in the treated and untreated sites at six-week intervals until reinfestation of the treated area occurred.

Efficacy test results showed that fire ants in the Award-treated mounds declined by 89.9 percent six weeks after treatment. The second and third reading — at 12 and 18 weeks, respectively — showed a 100-percent population decline. Minimal ant activity was recorded at the final 24-week reading.

At the study's onset, ant populations from mounds in the treated and untreated areas were not significantly different. Six weeks after treatment, the early effect of Award was evident, as no

worker pupae were present in the treated population. Due to the 100-percent population decline at the 12- and 18-week readings, researchers could not collect samples from the treated colonies. However, the untreated check plots contained a full caste composition throughout the study.

At the final 24-week post-treatment reading, the caste populations in the treated and untreated mounds were no longer significantly different except for the worker pupae category. Although

the worker pupae population was significantly lower in mounds in the treated area, their presence did indicate reinfestation.

As this test shows, for best control, Award applications should be repeated after several months. Since fire ants forage most actively when temperatures are moderate, Award is most effective if applied when ground temperatures reach 60 degrees Fahrenheit. In many areas, the ideal time for applications may be spring and fall.

Effect of Award on Fire Ant Populations

Mean percentage change in fire ant population at indicated post treatment interval:

	TREATMENT			
	6 (weeks)	12	18	24
Award	-89.9%	-100 %	-100%	-94.4%
Check	-27.4%	-45.8%*	-63.3%*	-15.2%



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Canadian supers get an earful on IGRs, bacterial toxins

Continued from page 36

teria, fungi, viruses, protozoans, resistant varieties of turfgrasses, toxins, IGRs, and soaps and oils:

• IGRs: "A good deal of work is being done on insect growth regulators," which stop the insect's development and, more important, its feeding.

"They are low in toxicity because they affect specifically the enzyme and hormonal systems of the insect that tell it to continue in its development," he said. "Depending on the way the insect acquires it — if ingestion

is the way to accomplish its effectiveness — a lot of the good guys in turf that don't eat thatch or grass are not going to be affected. So, from a lesser toxicity standpoint, this group shows good promise for the future" and "can be used against a number of insects."

Niemczyk had high praise for Rohm & Haas' RHO345, a groundbreaking IGR that "affects the insect developmental mechanism in a way quite different from anything else. It is persistent. You put it on in the spring and it

stays there for a long period of time. I can put it on in May and it gives me billbug control ... in the summer and grub control after that."

"Chemistry-wise, the whole area of agents is wide open," he added. "Some totally different things are coming on line that I have never even dreamed of, or heard about."

• Bacterial toxins: The potential is encouraging, he said, especially for the U.S. firm Micogen's formulation of the *Bacillus Thuringiensis* (BT) bac-

'They have prepared a formulation of this BT toxin ... that actually went through thatch and gave us 85- to 90-percent control of grubs. That's the first time in 20 years I've been doing this that I have seen BT work against grubs. And other researchers found the same results.'

— Dr. Harry Niemczyk

terium for control of grubs.

"I was absolutely surprised [evaluating the product]," Niemczyk said. "They have prepared a formulation of this BT toxin ... that actually went through thatch and gave us 85-

to 90-percent control of grubs. That's the first time in 20 years I've been doing this that I have seen BT work against grubs. And other researchers found the same results."

BT produces a toxin that is extremely toxic to insects, but it is susceptible to ultraviolet rays, is not stable in soil and must be eaten by the insect to be effective.

"There are limitations on what BT can do, but there is a great deal of work going on in this field. One company has 10,000-plus strains of this bacterium," he said. "It would help us a bit with cutworms but it doesn't last long enough." So more research needs to be done.

Transgenic research has created new possibilities. The gene that tells the bacterium to produce the BT toxin can be extracted from the bacterial organism and implanted in a plant like corn which, in turn, produces that toxin.

Scientists at Michigan State University, Virginia Tech, Rutgers University and Ohio State are trying to inject that gene into a bentgrass plant so that it will produce its own toxin to help control pests like cutworms, Niemczyk said.

He also cited the promise of pathogenic nematodes, soaps and oils, and resistant varieties in growing healthy turf, but said much more research must be done in the fields of bacterial organisms (They exist "but I don't see a lot of new development along these lines because of our inability to produce them artificially."); fungi ("We just have to figure out a way to use it. I am encouraged that there are some major companies that have invested some real money on this."); viruses ("I can see nothing on the horizon for possible use of viruses on turfgrass"); or protozoans (Again, "I don't see any potential ... in a practical way.").

"These are some of the ingredients that are available or are in research that we can put in our IPM stew," Niemczyk said. "What you do and how you incorporate this concept on your golf course is going to have a lot to do with you as a superintendent, your course, plus the governmental agencies that are going to be telling us a whole lot more about what we can and can not do in the future..."

"Not any one of these things are going to solve all our problems. But who can argue with our incorporating them into the IPM systems we are trying to use to reduce the amount of real pesticides in our environment?"



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**ROHM
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Cyproconazole

Continued from page 36

a longer period of time," said Dennis Williamson, product development field scientist for Sandoz. "The fungicide isn't unique in its chemistry, but rather in its high unit of activity and its spectrum of control."

Systemic fungicides like cyproconazole are absorbed by the plant and move internally within its own system. Systemics protect the leaves and stolons of the turf plants, as well as new growth. They require fewer applications because they persist

longer than nonsystemic or contact fungicides.

Like other DMIs, cyproconazole is absorbed by the plant and translocated in an upward acropetal direction. These fungicides act as acropetal penetrants when applied to plant surfaces — passing into underlying tissue and moving upward to new growth. This provides an advantage to treated turfgrass, with weather conditions, soil temperature, irrigation levels and mowing height changing daily.

"We believe the crown of the turf plant serves as a reservoir for the above-ground portion of

the plant," Williamson said. "Because it is highly systemic, cyproconazole has the ability to overcome all these factors."

• • •

Knowing when turf disease is most likely to occur in a particular region is the first step to implementing a successful preventive disease control program. This is especially true for Rhizoctonia blight — generally referred to as brown patch.

Generally striking cool-season turfgrasses late in the spring through early fall (May through September), brown patch appears as circular patterns. It

causes a dieback from the leaf tip, giving the diseased turf its brown appearance. Conditions for the fungus are most favorable in warm, humid weather, with nighttime low temperatures above 70 degrees. Free moisture on leaf blades and high nitrogen fertilization can also increase turf susceptibility to brown patch.

Before these conditions exist, it is important to take appropriate preventive action to ensure brown patch does not get a foothold on the turf. "Even if brown patch is stopped dead in its tracks, after disease symptoms are present, the grass will con-

tinue to lose turf quality until the fall when weather conditions are cooler," Williamson said. The fungus is especially threatening in the South, where long periods of high temperatures and humidity are the rule.

Field trials showed cyproconazole is effective for 28 days at 1/3 ounce of product per 1,000 square feet on fairways, roughs and tees. On greens, as little as 1/6 gives 14 to 21 days of control.

• • •

Dollar spot also generally threatens during late spring to early fall. Caused by *Sclerotinia homoeocarpa*, it is found throughout the nation, with the exception of some arid regions in the West.

Dollar spot appears as yellow-green, hour glass-shaped blotches on leaves, which progress to straw- or tan-colored infections with reddish-brown borders. Infected areas range in size from that of a quarter to a silver dollar, but patches may coalesce, resulting in larger areas of affected turf. Warning signs of the disease include warm, humid days — with high temperatures ranging from 60 degrees to nearly 88 degrees — and cool nights that result in heavy dew. Drought- and nitrogen-stressed turf during periods of high humidity also favor the disease.

"Cyproconazole is extremely effective on dollar spot with 1/6 ounce of product per 1,000 square feet, giving 28 days of control when used preventively," Williamson said. "These longer control periods of dollar spot can be useful in the North, where superintendents are challenged with trying to prevent the disease over a longer period of time. Also, more Kentucky bluegrass or ryegrass mixtures are used in the North, which may be easier to infect compared to warm season grasses in the South."

• • •

Warning signs are already appearing for summer patch. Caused by the pathogen *Magnaporthe poae*, the disease generally infects its host in the spring, resulting in foliar symptoms when the temperature rises during June, July and August.

Summer patch usually finds its host in annual bluegrass, Kentucky bluegrass and fine-leaf fescue. High temperatures ranging from 86 to 90 degrees, combined with heavy/excess rainfall, create conditions for the disease. It appears as gray-green wilted patches, four to six inches in diameter. These patches may coalesce involving large areas of turf, especially on fairways. In order to effectively control the disease, it's important to make preventive applications in the spring before symptoms appear. For many turf managers, long-lasting, DMI fungicides have been the answer to this problem. When applied preventively, cyproconazole has consistently provided 28 days of control of summer patch on greens — 28 to 45 days on fairways.

GOLF COURSE NEWS

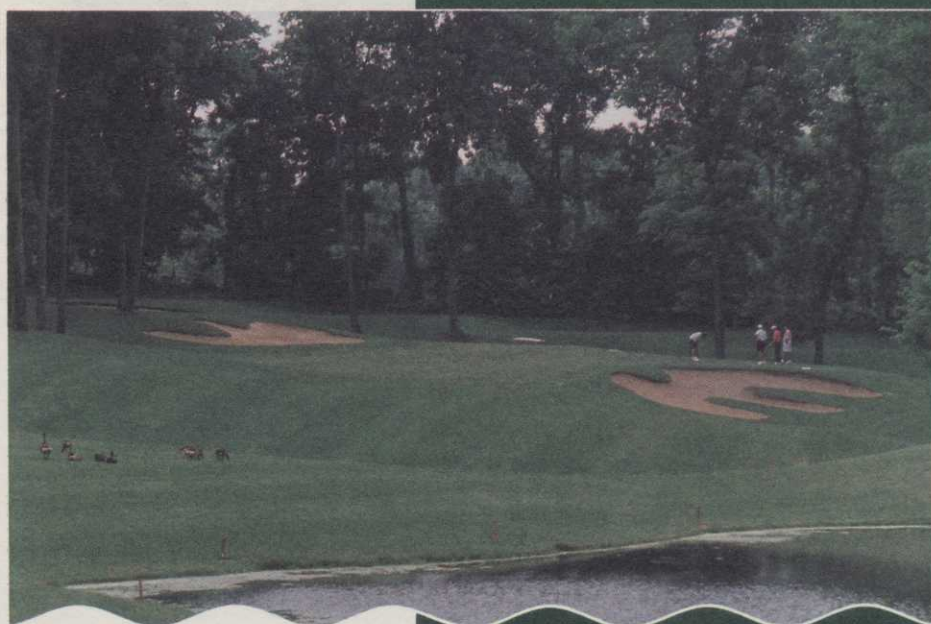
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CIRCLE #136

USGA directors comment on new chemistry

Continued from page 36

developed by Bayer (formerly Miles) has shown promise, according to Stan Zontek of the Mid-Atlantic region. "We've known for years that nicotine can control insects," he added. "The use rates are small, something like 6 ounces [6.4 according to company literature] per acre. It's extraordinarily safe. Fish can swim in it, birds can eat it. Grass clippings recycle the material into the thatch layer where it continues to control insects. It can even get into trees where it can control boring insects."

Zontek is also intrigued by trichoderma, a naturally occurring bacteria that suppresses certain turf diseases. Zontek said many other biological controls have proven susceptible to fungicides. But trichoderma seems to be resistant to most fungicides. It has been marketed primarily on the West Coast, but is being tested at two Baltimore courses, according to Mid-Atlantic agronomist Keith Happ.

Zeneca Professional Products is developing a new, broad-spectrum, post-emergent fungicide with extremely low usage rates, Zontek added. Heritage is being tested in the Eastern and Central U.S., but is probably a year away from receiving Environmental Protection Agency registration and two years from hitting the commercial market, he said.

Larry Gilhully, director of the Western region, also mentioned the potential of Heritage, which could replace mercury-based pesticides for treatment of snow mold and many other diseases.

Biological controls have been much discussed in recent years, but still seem to have limited applications. One that has proven effective is *Bacillus thuringiensis*. "BT has worked very well on army worms in Hawaii," Gilhully said. "I'd like to see it used as much as possible."

Biologicals, specifically parasitic nematodes, have also worked well against mole crickets on Southern courses. According to Florida Region Director John Foy, two products have proven popular with golf course superintendents — ProAct (distributed by Liquid Ag Co.) and Vector (distributed by LESCO).

Jim Moore, director of the Mid-Continent region, mentioned a relatively new Monsanto herbicide called Manage. Manage has proven very effective against purple and yellow nutsedge, a major weed problem on most Southern and Central U.S. courses. It works on both warm- and cool-season

turf, Moore said.

"Superintendents who have been fortunate enough to get experimental-use permits to use it are screaming for more," Moore said. "Unfortunately, there doesn't seem to be enough on the market, for some reason."

Monsanto Communications Manager Dan Holman said Manage is commercially available but acknowledged the supply shortage.

"It's like any new product: Initially there isn't enough to meet the demand," the Monsanto spokesman said.

Jansen weighs in with updates on new formulations

Joe Jansen, a sales representative with Louisville, Ky.-based golf course chemical distributor George W. Hill & Co., annually updates customers on new products, formulations and application information for the Midwest market.

This year's written review includes Ultrex from ISK Biosciences; Merit from Bayer; a new formulation of Banner from Ciba; Mavrik from Sandoz; a new application recommendation for Dimension, recently acquired by Rohm & Haas; and Manage from Monsanto. Following are excerpts:

- Ultrex — A new formulation of Daconil. ISK's test results show it outperforming the competition in speed of mixing and consistent coverage. The U.S. Environmental Protection Agency favors it because of its dry formulation.

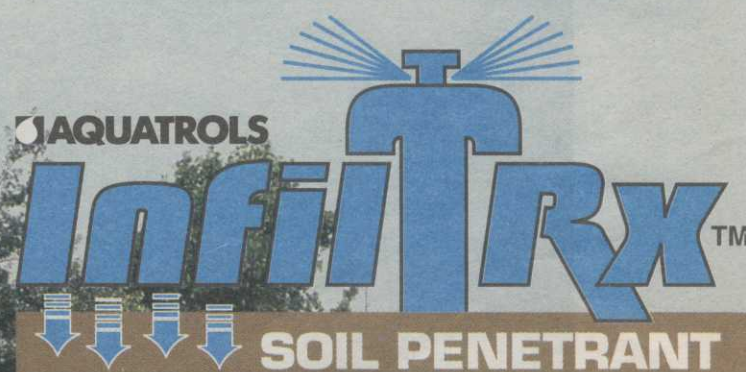
- Banner GL — Provides the same features as Banner EC, but in a gelatin formulation in water-soluble bags. One advantage of the new formulation is that it can be mixed with emulsified concentrates without chemical turf burn.

- Mavrik — It controls a broad range of hungry surface feeders and nuisance pests, and is a safer alternative to Dursban.

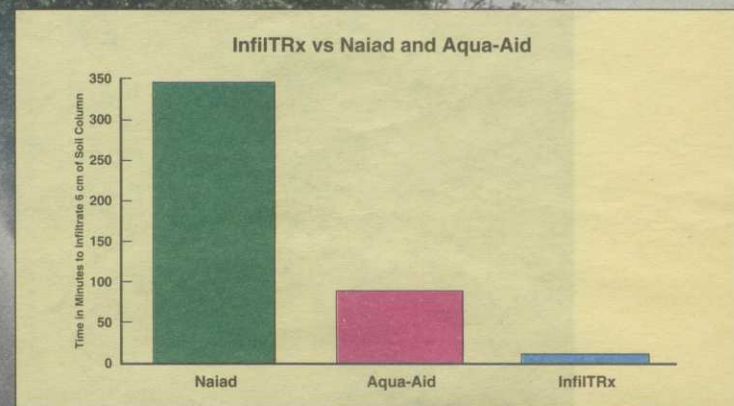
- Dimension — Has increased the amount of turf herbicide that can be applied annually from 2 quarts per acre to 1-1/2 gallons per acre, making it suitable for controlling crabgrass, goosegrass, henbit and *poa annua*.

- Manage — A new post-emergent herbicide providing outstanding control of yellow nutsedge in cool- and warm-season grasses.

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CIRCLE #138

Audubon name change

Continued from page 3

motivators toward sustainable development."

The strategy should be in place by May or June, Dodson said. "I'm excited. It is helping us decide where we're going, define our programs and generate data."

Pebble Beach Co. Vice President Ted Horton, whose company had won a New York Audubon award, applauded the action.

He pointed out that when Pebble Beach was honored, area citizens gave it little notice because the citation came from a state organization 2,000 miles away. "Yet, the Audubon programs are truly international," he said. "This name change will better reflect the importance and broadness of the Sanctuary and other programs."

The Audubon Society of New York staked a claim in the golf industry when it teamed with the U.S. Golf Association to create the Audubon Cooperative Sanctuary Program for Golf Courses four years ago. Since then, it has added the Audubon Signature Sanctuary Program, for golf courses not yet built, and the Audubon Heritage Program, which is geared toward entire resorts.

A bird-watcher's awakening to golf course's influences

Continued from page 13

at the Virginia CC would be delighted to learn that the swallows who follow their golf carts as the tires stir up insects can each eat over 1,000 mosquitoes in a single day. I was amazed at the numbers of barn swallows I saw during my visit and I saw good numbers of other swallow species as well. Swallows need mud sources, water, nesting sites, and a lack of nasty pesticides in order to live. These swallows probably nest on some storage buildings on the property and under the many nearby road trestles over the Los Angeles River.

I was pleasantly surprised when Ray Davies, the golf course superintendent at Virginia, told me that he was using no non-degradable insecticides (as now required by law) and that, in fact, the only insecticide he uses targets the cutworm moth larvae that are dug up by crows, who destroy turf in the process. (Since crows are notorious nest robbers of increasingly rare species, I can heartily endorse efforts to drive them away).

I saw a lot more than swallows on my morning tour, however. An intern of Ray's, a landscape architect student named Tonya, took me around on a (non-polluting and quiet) electric golf cart. I would bet that even the most ardent golfer would stop, at least briefly, to appreciate the beautiful black and orange hooded ori-

oles we saw nesting in the club's Washingtonia palms. In the same general area I spotted a Nashville warbler, at that time remarkably early in its fall migration from its nesting grounds in the Northern U.S. and Canada to its winter home in tropical Mexico or Central America.

I started to notice a good number of our native species — lesser goldfinches, bushtits, Anna's hummingbirds, scrub jays, northern mockingbirds, black Phoebe. I imagined the area busting with birds during the spring and fall migration periods, in addition to the winter season, when many species congregate in our mild Southern California climate. I began to wonder if there was something different about this particular golf course, something that made it more wildlife-friendly than others.

I was partly correct. Looking around, I saw the wonderful old California Sycamore trees, the lovely Liquidambars, and several other native or otherwise wildlife-friendly species. I realized the club is adjacent to both a botanical oasis called Rancho Los Cerritos and the Los Angeles River, both of which are magnets for wildlife. I saw all the wildlife around me, and began to envision how much more there could be without compromising the functionality of the golf course; on the contrary, most of the things I had in mind were minor changes that would probably enhance the already considerable beauty of the place. And I began to realize that other golf courses, even those less favorably situated, could easily be modified to enhance their value to wildlife without compromising the golfer's needs.

It turns out that Ray was way ahead of me on many, if not most counts. Nearly all of the water used by the course is tertiary-treated wastewater (a small amount of city water is used on the perimeter to prevent salt buildup on the greens). The water that infiltrates the soil is purified by the thick, biologically active thatch, and that which does not evaporate or become transpired by the plants helps recharge the local groundwater supplies or to fill the ponds, which were teeming with mallards and which, Ray tells me, harbor large numbers and several varieties of ducks as well as Canada Geese in the winter. Thus, the Virginia Country Club, though it utilizes a good deal of water, has very little impact on available drinking water supplies, and in some ways actually helps to improve the situation!

I'm hoping that some of the excess water that drains from the course could be used to replant and restore a portion of the native willow forests that once dominated the flood plain of the (unchanneled) L.A. River, in the currently dry, weedy area between the golf course

and the concrete-lined river channel. It would greatly help support wildlife, and probably help cool and green the area. I also imagine islands in the center of the club's ponds where the waterfowl and shorebirds that use the park can rest, and perhaps even nest, safe from disturbances by humans, foxes, or other predators.

Ray and I are in remarkable agreement as to which trees and other plants are desirable, even if we arrived at our conclusions differently. Cottonwoods and white alders are beautiful natives that shelter and feed migratory bird species. Silk floss and coral trees, though not native, have beautiful flowers that also happen to produce a lot of nectar, attracting some of our most beautiful migrant bird species. When less desirable trees die, they could easily be replaced by these and other valuable species (although it is important to leave a few dead trees standing at any given time if one is to have a completely balanced ecosystem).

Lemonadeberry and toyon are both wildlife-friendly native shrubs that require minimal care and which could be used to vegetate and stabilize dry slopes in some appropriate areas of the course. For the turf, Ray uses a naturalized species of grass that is not only preferred by golfers but requires less care than other species. He has even helped in efforts to live-trap and relocate the abundant, non-native red fox, which devastates native wildlife as well as, on occasion, golf greens. (I wish that there was an appropriate place to relocate this beautiful animal, but alas, these are lacking in the US for this European species.)

My experiences with Ray and Tonya reaffirmed a changing pattern in my approach to environmental activism. Certainly there are "good guys" and "bad guys" in the battle to save our environment's integrity, but a lot of the so-called bad guys may be merely uninformed and thus unappreciative of the natural order of our biosphere. Then there are those that we assume are "bad guys," merely because they are in a role that is traditionally pegged as such. This is dangerous and counterproductive. Tonya, for example, told me that she is interested in golf course management precisely because of her love of nature and her desire to see that golf courses are designed and maintained in a manner that is consistent with sound environmental principles. Ray, likewise, is working within the constraints of his existing golf course and his long-term constituency to educate both himself and (gently) others in order to facilitate their needs and desires, while making sure that Virginia Country Club is a good host and neighbor for humans and non-humans alike. These folks in particular need our support, understanding, and ideas, for they are the ones who can truly initiate the changes we like to talk about.

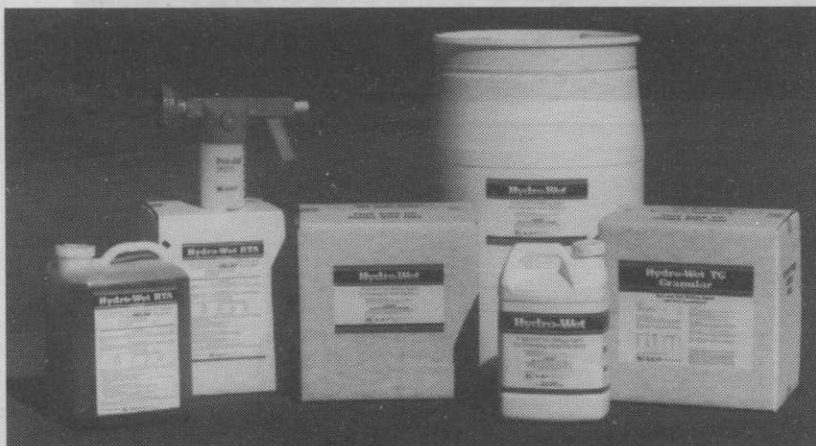
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Gast leaves USGA for Jupiter Hills

JUPITER, Fla. — Chuck Gast, who for four years has been an agronomist with the U.S. Golf Association (USGA) Green Section, has taken the position of head superintendent at Jupiter Hills Club here.

A Kansas State University graduate who had been superintendent for 13 years at Tascosa Country Club in Amarillo, Texas, Gast split his duties between the USGA's Florida and Southeast regions.

He will be succeeded by Christopher Hartwiger, who is finishing his master's degree studies in agronomy at North Carolina State.

Hartwiger, whose thesis was on lightweight rolling of bentgrass putting greens, has been teaching a class and working at the Pinehurst golf courses. A graduate of the College of William & Mary, he will be headquartered in Alabama.

BRIEFS



PITTMAN/FLOYD PICKED

GREAT EXUMA ISLAND, Bahamas — Bland Pittman and Raymond Floyd will design an 18-hole golf course as a cornerstone of a 518-acre luxury resort community which will be built here beginning this summer. The Bahama Club, Ltd. of Coral Gables, Fla., is developing the project, which is being designed by Sandy & Babcock International and master-planned by Pittman Poe & Associates. Ritz-Carlton oceanfront hotel is also a centerpiece of the project.



Raymond Floyd

COUNTY, HICKMAN HILLS ENTER PACT

DUTCHESS COUNTY, N.Y. — The Dutchess County Economic Development Corp. (EDC) has entered into an agreement with Hickman Hills Corp. for construction of an 18-hole golf course to be financed with EDC bonds. HJM Corp., active in the golf world for 30 years, advised Hickman and structured the bond financing. Designed by Lee Trevino, the course should be under construction this spring and open for limited play in mid-season 1996.

GOLFDATA CREATES NEW SERVICES

ROCKVILLE, Md. — GolfData International, Inc. has initiated a new high-tech information retrieval service — a fax-back system that offers “instant access to key golf market intelligence” it believes is crucial to business planning and development. The service includes golfer demographic profiles, consumer spending information, market data and financial statistics. CEO Scott Marlowe said the firm is also introducing GOLFax•letter, an on-line newsletter. More information is available from GolfData at 15012 Red Clover Drive, Rockville, Md. 20853.

LAGREE JOINS BARBARON

CRYSTAL RIVER, Fla. — Black Diamond Ranch General Manager and Vice President Terrill A. LaGree has left to join golf course builder Barbaron, Inc. as vice president and equal stockholder. LaGree is a graduate of the University of Wisconsin with a degree in landscape architecture.

FOSTER PROMOTES SCHAUPETER

ST. LOUIS, Mo. — Arthur Schaupter has been promoted to lead design associate with Keith Foster Golf Course Design here. Jason Hollen, a landscape architecture graduate of West Virginia University, has joined the design staff.



Engl leaves the safety net of anonymity

By HAL PHILLIPS

CASTLE ROCK, Colo. — Instead of that Dye character, perhaps American Express should have considered designer Jim Engl for its trademark “Do you know me?” campaign.

Yet the window of opportunity may have passed.

After working under respected architects like Dick Nugent and Britain's Cotton Pennink, then designing courses on behalf of Bernhard Langer and Isao Aoki for International Management Group (IMG), Engl is working under his own name as part of his new firm, Global Golf Design.

“I’ll be honest: I got to some of the top projects around

Continued on next page

Designer Crenshaw takes little time to savor his second Masters victory

By MARK LESLIE

AUSTIN, Texas — With his second Masters victory tucked snug in his bank of “memories to keep,” the question in the golf development world is, what effect might it have on Ben Crenshaw’s course design career?

When Hale Irwin won the U.S. Open in 1990, his course design business soared. On the Wednesday after Crenshaw donned the Masters’ green blazer, his design partner Bill Coore reported that his Austin office had been deluged with congratulatory calls.

“It’s reasonable to expect that some people who were considering us may be swayed now,” Coore said, “but it’s too early to tell. We try to keep a separation between Ben’s playing career and what we do. But, obviously, there’s carryover.”

That night, Coore and Crenshaw were on a plane enroute to Tembagapura, Indonesia, where they face some unique “life situations.”

Impressed by Crenshaw and Coore’s golf course design at Barton Creek in Austin, Texas, as well as Crenshaw’s victory at their own Freeport-McMoRan Classic last year, Freeport-McMoRan officials hired the design team to craft an 18-hole track for their mining crews in Tembagapura.

With a complete community built around its copper and gold mine, Freeport-McMoRan decided a golf course would be fitting, as a respite for its employees and visitors from abroad, Crenshaw said.

“It will provide play for the miners and for the Americans, Australians and others who come from elsewhere who are involved in the operation,” Crenshaw said. The facility will be geared more toward being recreational than money-making, he added.

Clearing of the site began last fall, and Crenshaw, taking a break from the PGA Tour, said, “We hope to start grassing in the summer and try to have an opening in the fall.”

Building the course in concert with Freeport-McMoRan’s engineering team, Coore and Crenshaw will import their own shapers to fine-tune their design. “Their equipment is there

Continued on next page

Is this the Twilight Zone or the Third World?

Reflections of a ‘vacationing’ super at the top of the world

By GORDON WITTEVEEN

KATMANDU, Nepal — My vacation in Nepal was meant to be just that: a get-away-from-it-all month without golf courses or superintendents. The combination of a radically different culture and the clean mountain air would surely cleanse my brain and remove the cobwebs. A fresh outlook and a deeper appreciation full of life in general would surely result.

The adventure had started with a trans-Atlantic flight to London and a continuation to New Delhi, the capital of India. From there it was just an hour and a half to the top of the world. We landed here in exotic Katmandu. The name of Nepal’s capital had intrigued me ever since my first geography lesson on Asia. Actually, the place is a bit of a disappointment. There are no cats in sight; instead, it is loaded with dogs. I suppose if it was called Dogmandu no one would go there.

On the way from the airport I got blurry-eyed from a speeding taxi view of a small red flag in a vacant field but immediately

Gordon Witteveen is superintendent of five Metropolitan Toronto Board of Trade golf courses.



“Doing it my way” takes on a whole new meaning in Nepal.

banished the words “golf course” from my mind. I had made a sacred vow to stay away from golf courses.

Two days later, after visiting five temples and three museums, I snuck away from the group, hired a rickshaw and headed for the Royal Nepal Golf Club. It was noon time on a warm, sunny day in November when I climbed a fence to

have a closer look at the grass. Imagine my surprise when the first green I came to was not green at all, but black, since the putting surface was made from used oil and sand. Greens such as these I had not seen since the ’60s in Saskatchewan. The tees were small, elevated and rectangular. They had recently been top-

Continued on page 48

Eng designs worldwide — China to N. Dakota — with Global Golf

Continued from previous page

the world because of my association with [players turned designers]," said Engh, whose company is based here but whose projects stretch from North Dakota to suburban Bangkok. "Had I not been with IMG, it would have taken me 20 years to get those jobs."

"The same applies to Cotton Pennink. I had some opportunities there that I wouldn't have had if I sat at home."

Those include lead design

credits at Woburn Golf Club in England, site of the Dunhill British Masters, and the acclaimed Dragon Pearl Country Club southwest of Bangkok.

Through it all, Engh has remained determined to represent his work thoroughly on paper.

"I suppose my biggest strong point is detail and documentation," he explained.

"I'd like to see everyone do that more: Putting their complete plans in contour form so someone can put down stakes

'I'd like to see everyone do that more: Putting their complete plans in contour form so someone can put down stakes and bring in a bulldozer operator who can follow the plans.'

— Jim Engh

and bring in a bulldozer operator who can follow the plans.

"Dragon Pearl was built 99

percent according to plan. That part — being able to convey it from head to paper — is very important because you need to make things clear to your design partner, builders, developers: everybody. It's also the most cost-effective way because it allows the project to be bid properly."

Global Golf Design currently has three projects under contract, including the 27-hole Dongguang Golf Club in the southern Chinese province of

Guangdong. The remaining two — both with target openings of summer 1996 — are domestic: a 9-hole project in Killdeer, N.D., only a few miles from Engh's hometown of Dickinson; and an exclusive 18-hole project in the valley outside Castle Rock called The Sanctuary.

"The Sanctuary is one beautiful site," raved Engh. "The first hole has a 200-foot vertical drop to the fairway."

"The North Dakota project is interesting. Two of the developers are earth-movers, so we're going to save some money on that front. But we're moving about 250,000 cubic yards of dirt. The local 18 up there is as full as it can be, so we should get some play."

Both projects add to the golf boom now underway in the Rocky Mountain region.

"I think a lot of people have a misconception about this area," said Engh. "They see the Broncos on Monday Night Football and they think it snows every day. But I've read that Colorado has 300 golf days a year. It may be 48 degrees some of those days, so I guess it's a question of quality."

"But the industry is moving. There's a new population base here in Colorado, as people move in from the West Coast. In general, like everywhere else, as the mass population of Baby Boomers gets older, more have taken up golf."

Crenshaw active also in design

Continued from previous page and we involve them in a lot of ways," Crenshaw said. "It's very much an orchestrated effort."

Although mountains climb 19,000 feet into the air beside it, the golf course property is mostly flat. "There is a little relief and we're trying to work with that," he said. "We will build some crowned-off greens for surface drainage."

"Some creeks are on the property and we'll use those as well. They will run diagonally and will be off to the sides [of the holes], but will strategically come into play."

A major challenge is gravel beneath the topsoil. The Freeport-McMoRan crews are "turning it over and using it for drainage," Crenshaw said. "They will run some canals off to the sides to drain it properly."

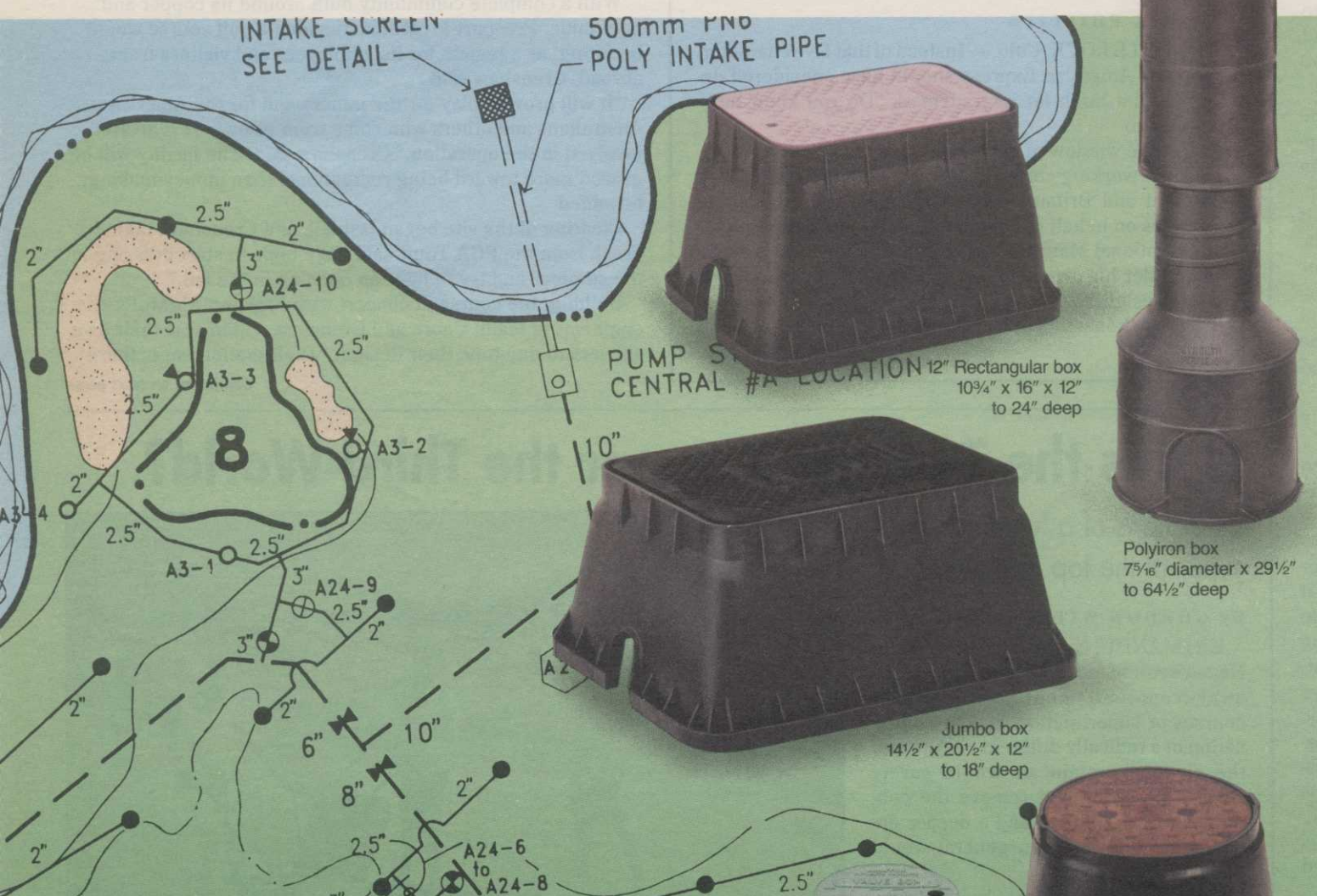
The course is all-Bermudagrass because of the hot climate.

This may be not only the first, but the last Asia-Pacific project for Crenshaw and Coore.

Freeport-McMoRan is a half-partner at Barton Creek, which is also Crenshaw's home course, and Crenshaw agreed to design the Tembapoura project because of that close relationship, he said.

GOLF COURSE NEWS

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Fazio returns to soften one of his earliest creations: Golf Club of Oklahoma

By MARK LESLIE

BROKEN ARROW, Okla. — The Golf Club of Oklahoma, one of Tom Fazio's first solo designs after leaving uncle George's firm, is getting a facelift to sport softer, more mellow and forgiving lines.

"Our membership as far as playability has broadened immensely. Some are scratch golfers, some 35 handicap," said superintendent Dee Greninger. "They will soften the features and make the course more user-friendly."

When the 7,150-yard track opened in

1982, it was geared for 75 members, all men, and a mere 9,000 rounds a year. Its tiny, difficult greens and small bunkers were sufficient. But the club was sold to Southwestern Bell in 1989, the membership ballooned to 275 and the property now handles more than 20,000 rounds. Plus the company intends to position the facility, which sits some 20 miles south-east of Tulsa, as a business retreat.

All traffic areas need updating, Greninger said. "We need cart paths and new, bigger greens with more access, air movement sunlight, etc. to

handle increased traffic."

In many ways the project will be more of a restoration than renovation, he said, pointing to the Scottish-style bunkers with four- to 12-foot-high sod walls and high sand flashes. Wind erosion and soil infiltration have necessitated bunker restoration.

A fifth set of tees will also be added, and existing tees will be enlarged.

Otherwise, the layout will remain as it was — "nothing but golf, native, what everyone is [building] now — love grass, switchgrass, native vegetation areas,"

Greninger said. "It was built for that Pine Valley feel and look."

Under the eye of Fazio's lead architects Dennis Wise and Andy Banfield, the course will close down and construction begin Aug. 1, with an expected reopening between April 15 to May 1, 1996.

The project should cost around \$1 million, Greninger said.

While the fairways, sporting Midiron Bermudagrass, will remain untouched, the greens will be seeded Cato-Crenshaw bentgrass and the tees will be Tifway 2 Bermudagrass.

Nicklaus inks pact with mega-resort on Brazil's coast

NORTH PALM BEACH, Fla. — The developer of a mega-resort project on Brazil's north-east coast in the state of Bahia has selected Jack Nicklaus to design four golf courses, a Jack Nicklaus Academy of Golf and a replica of the JackNicklaus Museum. It is perhaps the most expansive single golf development of Nicklaus' more than 25-year design career.

Developer Odebrecht S.A.'s plans for the ocean resort includes hotels, an international marina, three theme parks, commercial villages, sports academy and a convention center.

Pointing to Nicklaus' "world appeal and marketability," Marcos Espinheira, project director for Porto Sauipe, said: "Brazil does not have the established golf course culture and popularity that the U.S. and Asia have developed over the years, but we have all the resources necessary. But Porto Sauipe's strategic location and the impressive natural resources will make it an attractive destination for the 60 million golfers from North America, Europe and Asia."

This is Nicklaus' first course design in South America, and he begins design and construction on the first two courses this year.

"This is possibly the most aggressive golf development project in the world right now," said Nicklaus. "The seaside property I'm working with is spectacular. With its resources in tourism, beaches and climate, Brazil is poised to be a great golf market of development."

...

Meanwhile, Golden Bear International has begun construction of the Golden Bear Golf Club at Hammock Creek in Palm City, Fla. The Golden Bear Golf Club will be the first semi-private/daily-fee golf course that will be owned and operated by Golden Bear International upon completion. The development features a course co-designed by Jack Nicklaus and Jack Nicklaus II.

The course will be completed by year's end, with a targeted opening in January 1996.

GOLF COURSE NEWS

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Harvard plans design courses

CAMBRIDGE, Mass. — Harvard University Graduate School of Design will offer five summer courses related to golf course and resort planning and design.

The course work will include Golf Course Environmental Considerations, July 31 to Aug. 1; Golf Course Design, Aug. 2-3; Golf Clubhouse Design and Site Planning, Aug. 4-5; Golf Course Development, Aug. 7-8; and Golf/Residential Site Planning, Aug. 9-10.

Instructors will include course

architects Geoffrey S. Cornish and Robert Muir Graves; course architect Dr. Michael Hurdzan and environmental scientist Dr. Stuart Cohen. In addition, golf development consultants Barbara Hanley and Pamela McKinney; and developers Van Tengberg and Garth Chambers will offer their insights.

For more information is available from the Office of Development and External Relations, GSD, Harvard University, 48 Quincy St., Cambridge, Mass. 02138; 617-495-1680.

GULF HARBOUR REOPENS

FT. MYERS, Fla. — Florida Design Communities opened Gulf Harbour Yacht & Country Club on March 11-12, unveiling its half-redesigned 18-hole golf course. Gulf Harbour, formerly known as River's Edge Y&CC, was purchased by Florida Design Communities in July 1993. Since that time, FDC has redesigned nine of the golf course's 18 holes to form a more challenging layout.

Nepal: where greens are black & golf is — well — something new

Continued from page 45

dressed, evidence that a greenkeeper must be around somewhere.

I nosed my way to the clubhouse where I was met by Mr. Spacharya, the manager, who welcomed me and gave me a guided tour of the premises.

The Royal Nepal Golf Course is just nine holes and only 2,600 yards with four par-3 holes. In spite of these modest qualifica-

tions, Royal Nepal is the best of the three courses in the entire country. The members are mostly diplomats and Western visitors, but more and more native Nepalis are taking up the game.

Five of nine greens are sand but recently four greens have been converted to grass. This is a cumbersome process. There are no machines and all the work is done by hand. The sub-grade is spaded and raked, then the top mix is carried in by basket or wheel barrow. Progress is slow and it may take more than a month to rough grade just a small green. But time is plentiful and labor is cheap since the workers earn just a few rupees a day. Women do much of the work. They toil in the fields, carry heavy loads tied to their foreheads, and have hoards of children, while frequently the men play cards and smoke the water pipe.

Once the new greens are established, explained Mr. Spacharya, the maintenance of the golf course becomes more complicated. Last year the club appointed a supervisor to direct the workers on the course. One of the biggest problems is to water the new greens. There was no money for pipes or a pump. The only other way was to carry the water from a small stream to the greens. Sturdy workers carried two 5-gallon pails on a yoke and splashed the water on the grass.

The club had recently purchased an English walk-behind greens mower. It was their proudest possession and it was stored in the clubhouse for safekeeping. A small rotary mower rounded out the equipment inventory.

"How do you cut the fairways?" I asked. Mr. Spacharya patiently took me back out on the golf course and introduced me to the herdsman who was in charge of the mowing machines: a dozen hungry cows who splattered fertilizer as they nipped the grass on the fairways. The herdsman, protected by a large umbrella, kept track of his charges with a whispy little cane.

There were few golfers out on this particular day, but all had caddies to carry their clubs. Each golfer was also accompanied by a ball boy who keeps an eye on errant shots. Even poor golfers rarely lose their balls on this course. If a ball boy does a good job, he may eventually become a caddy and also have an opportunity to play the game in the annual caddy tournament.

Golf has a future in this small faraway country. "Does the King of Nepal play golf?" I asked Mr. Spacharya.

"When he was Crown Prince he would come out occasionally, but now that he is King he is obviously too busy," explained my host understandingly.

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Ault, Clark add 7th course at Hot Springs, Ark.

KENSINGTON, Md. — Ault, Clark & Associates, Ltd., the golf course architecture firm based here, is busy in several states. To wit: Tom Clark has been retained by Cooper Communities, Inc. to design the seventh course at Hot Springs Village, Ark. Construction started in March.

The firm has designed all seven courses at Hot Springs Village, and has recently completed the new Diamante Course, which is a private club built by CCI and Club Corp of America.

The new Magellan Course will be built by the Property Owners' Association at the site of the ParFormance Golf School. With wide, generous fairways, just over 40 sand bunkers, and hundreds of grassy depressions, this course will be most playable for the senior and high handicap players. This marks the 20th course that Ault, Clark has completed for Cooper Communities, Inc.

Brian Ault is returning to the Beach Club Golf Links in Ocean City, Md., to add a second 18 holes to his original layout. Construction starts this spring, with the course targeted for opening in the summer of 1996.

Meanwhile, Bill Love and Dan Schlegel are about to start construction of the second 18-hole course at Penn National Estates, Fayetteville, Pa.

The original 18 was designed by Edmund Ault, and opened in the late 1960s. The new course will be a "traditional" design, playing 6,850 from the back tees, down to 5,250 from the forward tees. Completion is scheduled for fall, while the facility should be open for play in 1996.

CHAPARRAL PINES NAMES POPA

SCOTTSDALE, Ariz. — Chaparral Pines L.L.C. has appointed Thomas J. Popa to vice president of development for The Rim Golf Club and Chaparral Pines Golf Club, in Payson. Popa was formerly vice president of business development for Graham & Panks International, a golf course design firm here.

The Rim Golf Club is scheduled to begin construction late this year, and will feature a championship course designed by Tom Weiskopf and Jay Morrish.

Garl track 1st out of the gate in developing Costa Rica

By MARK LESLIE

FLAMINGO BEACH, Costa Rica — "Paradise," says golf course architect Ron Garl, is about to double its golf holes.

The Garl-designed Rancho Los Calinas will not only be one of the few new golf courses to open in two decades in Central America, excepting Mexico, it will be only the second track in this entire country of oceans, mountains and wild rivers.

Yet in the not-distant future this nation will sport several new golf facilities, Garl said, adding that a half a dozen courses are on the drawing board, including his second — Pueblo Real in Que Pos, a community on the

Several new golf facilities sit ready to be built in this emerging tourist destination

Pacific Ocean in the middle of the country,

Rancho Los Calinas will be the centerpiece of a small resort and single-family residential area. Sitting in the mountains about one mile from the Pacific Ocean, it will sport dramatic elevation changes and spectacular views. Garl expects the first nine to open in November and the second nine next year.

The developers, the Mike Osborne fam-

ily, intend to open a small hotel in 1997. Single-family homes are now being sold.

Condominiums are already built on the Que Pos site, being developed by architectural firm owner Carlos Arias.

"Costa Rica truly is paradise," Garl said. "It is a wonderful country. The people are wonderful. It's the nicest country we've ever worked in. It's as beautiful as Hawaii and [costs] one-fifth the price."

While surrounding countries are troubled by political unrest, this nation has been a democracy for almost 60 years, and, Garl said, is "the most stable of all Central America."

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CIRCLE #143

QA Teaching pro Rick Smith dons another hat — and succeeds

Continued from page 3

of design is very similar to teaching. You are building something from nothing.

If we want to keep people playing the game, we have to find ways to make it more enjoyable for them. You don't want the average golfer to beat his brains out on a course. That's not fun. There's enough pressure on the average golfer already. He doesn't need to deal with an impossible design as well.

At the same time, it's impor-

tant not to insult the average golfer. For instance, you don't want to put a bunker out at 260 yards that you know he can't reach. On the other hand, you shouldn't put one so close that he has no problem with it. It's better to place a bunker at 175 to 195 yards off the tee and give him the thrill of clearing something he can handle.

Because of my teaching experience, I think I understand the average player more than any other designer. While I'm rout-

ing a course, I hit a lot of balls in the field the way I know the average player would hit them.

GCN: What was it like building those first two courses at Treetops?

RS: I was fortunate that my first two courses were located where I already worked. I took a map and walked the site 50-60 times, so I knew it very well when I sat down to route out the courses. I was fortunate that I'd had such great experiences with Jones and Fazio and a terrific

owner [Harry Melling] who was willing to give me a chance to build 27 holes.

GCN: Considering you don't have formal architectural training, how heavily do you depend on other professionally trained architects and builders?

RS: When I was hired to do the Holland project, I knew I couldn't be there every day. My objective was to build the best quality course possible. To do that I needed someone on site. That's when I contacted Warren

[Henderson, most recently a design associate with Michael Hurdzan]. Warren's proven to be a real asset and is doing a great job. I made more than 20 site visits before routing the course and I'm planning to spend time there every week. But Warren will make many of the day-to-day decisions and should be a real asset on future projects.

At Treetops, I worked very closely with the builder, Doug O'Rourke, and with the superintendent of all the Treetops courses, Bruce Wolfrom. Bruce was instrumental in keeping things moving and is helping me on the Walking Course now.

I understand grading better now and I have a great partner [Henderson]. But there is nothing better than experience. In the field is where you learn.

GCN: How has the architectural community accepted you and your success?

RS: Tom Fazio seems to be very proud of me. He came to my grand opening at Treetops and offered his help whenever I needed it. I saw Mr. Jones at the Masters. He said he heard some good things about the Treetops course and thought it was wonderful. Jack Nicklaus said he liked the course and wanted to know if I'd be interested in doing a Rick Smith Signature course for his international design team. I really haven't heard anything negative from the architects. I'm designing because I love it, not to take business away from other architects. I want to spend a lot of time with each course I do. If I've done 25 courses when I pass away, I want them all to be thought of as good designs.

GCN: Do you ever worry that you are spreading yourself too thin?

RS: People have mentioned that. I've worked hard my whole life to get to the point where I can make my own schedule. I've got a tremendous owner who gives me time to do the things I want. The Tour players I work with think this is wonderful and have accommodated me when I've had to change my schedule. And I've been able to cut back my teaching schedule at Treetops a few days a month. I've got money coming in from other areas which has let me design courses. If I've learned anything from people like Fazio, Jones and Nicklaus, it's to love what you do. Golf is my livelihood, but it's also my hobby. When it becomes a job, that's when I stop doing it.

GCN: Have you been surprised at the positive response to your Treetops courses?

RS: It's meant a lot to me to get the good press and know that people are having fun playing them. But I'm not really surprised. The harder you work, the luckier you get. I work hard and I've never really failed at any-

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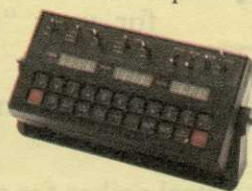
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STAFFORD, Va. — Construction of the Washington, D.C. area's newest golf facility, Augustine Golf Club, is complete. The 18-hole Rick Jacobson-designed course is expected to open for public play in the summer.

The Augustine Golf Club is the centerpiece of the Augustine community, which is under construction. The residential community will include 352 single-family homes developed by the Michael T. Rose Cos. of Laurel, Md.

Jacobson designed the golf course to blend with the charac-

D.C.'s newest track to open this summer

ter of Stafford County, and to harmonize with the area's topography and natural surroundings. The course was built by Wadsworth Golf Construction Co.

The course design incorporated two five-acre man-made lakes and 19 acres of wetlands to help create natural wildlife corridors linking the undisturbed open-space areas. These natural corridors are bolstered by a 40-foot vegetated buffer along the course perimeter, which also serves as a visual and physical buffer between

the course and the homes.

Superintendent Rick Owens is confident the Augustine golf course will meet criteria for the New York Audubon Society Golf Course Sanctuary program.

...

Meanwhile in Glen Ellyn, Ill., following three years of phased improvement, Jacobson has completed Glen Oak Country Club's restoration.

In 1991 the club voted to implement design recommendations outlined in its golf course

master plan. While Thomas Bendelow was the designer of record for Glen Oak, A.W. Tillinghast visited the club in 1935 and made numerous design suggestions. The golf course improvements outlined in Glen Oak's master plan reflect many of Tillinghast's suggestions of nearly 60 years ago.

"Primary emphasis was placed on restoring fairway and green side bunkers. Improvements included strategically re-locating and re-shaping some bunkers and

adding internal drainage to all of the bunkers which were built originally in the 1920s," said Jacobson. The program also included restoring some greens to their original size and shape, adding cart paths and expanding several tees.

"I think the members are extremely pleased with what has been accomplished. The integrity of the course has been maintained throughout the restoration program," said course superintendent Andy Dauksas.

Plan documents are being prepared for the renovation of the practice range which will take place in late summer.

Smith's picks: Nicklaus and Coore/Crenshaw

Continued from previous page

thing I've tried. I'm my own worst critic. I don't stop until I'm satisfied with what I've done.

GCN: What is your design philosophy?

RS: I want my courses to be very visual and very playable for all skill levels. I believe you can build a course for everybody.

GCN: Who are your favorite classic architects?

RS: Alister Mackenzie had some great sites and was talented enough not to destroy them. John Abercromby did some wonderful things, especially Addington Golf Course [Surrey, England]. C.B. Charles Blair Macdonald was very creative and [A.W.] Tillinghast was great. I think San Francisco Golf Club was one of his best. William Flynn had some beautiful courses, like Shinnecock. And Donald Ross, when he focused, did a great job.

GCN: Who are your favorite modern architects?

RS: Jack Nicklaus has done a great job, especially on his newer courses. Bill Coore and Ben Crenshaw did a terrific course at Sand Hills [Mullen, Neb]. What I admire most, though, are the great courses that have been built on bad sites. Designing a good course when you have nothing to work with is a real talent.

GCN: What are your favorite courses in terms of design?

RS: It depends on the site and purpose. Pine Valley is a great course on a great site. Shinnecock is perfect for a professional golf tournament, but I wouldn't build it for the average golfer. Garden City (N.Y.) Country Club is a very playable golf course. I look for different things in different courses.

GCN: What are your future design plans?

RS: I'd like to take on one or two projects a year and design more upscale practice facilities. Slow play is a huge detriment to the game. I'd like to see more par-3 courses as part of practice facilities. We're building a practice facility now in Birch Run [Mich.].

GOLF COURSE NEWS

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Raven Group, Jones II team up

TUCSON, Ariz. — Construction is underway here on The Raven Golf Club at Sabino Springs. Developed by The Raven Golf Group, a newly formed Arizona-based golf management and development company, the Sabino Springs project is the second high-end, daily-fee golf club in the state undertaken by The Raven Group. The company's first project, The Raven Golf Club at South Mountain in Phoenix, is also under construction.

The Sabino Springs golf course, expected to open in December, will be the centerpiece of Canoa Homes' 410-acre master-planned community being developed northeast of downtown Tucson near the base of the Santa Catalina Mountains and adjacent to the Coronado National Forest.

The Robert Treat Jones Jr. 6,900-yard par-71 golf course will make ample use of the site's natural topography and dense desert vegetation including Giant Saguaros, palo verde, mesquite trees and every other species of Sonoran cactus imaginable.



GOLF AND RV AT POINT SEBAGO

The first nine holes at Point Sebago Golf and Beach Recreational Vehicle Resort in Casco, Maine, are scheduled to open in June. The second nine should be ready by spring 1996. Phil Wogan designed the 18-hole layout on the 800-acre property along the shores of Sebago Lake. Developers claim Point Sebago is the only RV resort in New England to offer guests a golf course and beach area.



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CIRCLE #146

Williams & Gill finish Pebble Creek's new 9

BECKER, Minn. — The \$1 million, nine-hole addition to the Pebble Creek Country Club is now open to the public following a ribbon-cutting and inaugural rounds of golf played by council members, architects and contractors, according to Cary Femrite, golf course manager at Pebble Creek.

"We had a great summer for construction in 1993 and a perfect grow-in year in 1994. Weather was favorable and the hot spring temperatures enabled us to gain a month on our maturation process," said Femrite.

Garrett Gill and Bill Fitzpatrick of Williams and Gill of River Falls, Wisc., were principal architects in the expansion. The 57-acre tract of relatively flat land was converted to a gently rolling 3,500-yard, par-36 course with many ponds. Connected by a \$250,000 concrete tunnel, the Blue Nine compliments the existing 18-hole, par-72 layout designed in 1987 by architect Donald Herfort of nearby Edina.

"We wanted an expansion that would equal or exceed the quality of our existing complex and those needs were exceeded," said Femrite. "We were turning away enough people on the weekends to fill the 18-hole course twice over."

Mayor Norm Jensen made the expansion a top priority. After getting city council approval, the grounds crew made use of huge boulders unearthed on the site to construct a cascading waterfall that accents the highly visual par-3 7th hole, which can be seen from the clubhouse and road.

Johnston designing 2nd at Wachesaw Plantation in S.C.

HILTON HEAD ISLAND, S.C. — Clyde Johnston Designs has been retained to design the second golf course for Wachesaw Plantation East, a 390-acre residential and recreational community at Murrells Inlet, S.C., just south of Myrtle Beach.

The second course is planned to be semi-private, and will complement the existing Tom Fazio-designed course at Wachesaw.

The Wachesaw course is currently in the design phase, with construction scheduled to begin this spring. The track will play just under 7,000 yards with a par of 72. A course opening is planned for late summer, early fall of 1996.

Morocco calls; Casper & Nash respond

PHOENIX, Ariz. — The golf course design team of Billy Casper and architect Greg Nash has been contracted to design a new 18-hole golf course in Morocco.

"Golf is starting to emerge as one of the most popular pastimes in Morocco. And, the country is becoming known as one of the fastest growing Mediterranean golf destinations," said Nash. "Billy and I are proud to be part of the game's growth in North Africa."

Despite being nearly half the world away, the 6,700-yard, 18-hole Moroccan course will be similar to many Casper/Nash courses in the United States.

"Believe it or not, the climate of Morocco is kind of a cross between that of Southern California and the Southwestern deserts of the United States," said Nash. "They have a lot of the very same conditions we encounter on our courses over here. And, that means we can use many of the same high-quality grasses and vegetation that are featured on our courses in Arizona, California and Nevada."

Casper/Nash & Associates is involved in eight golf course development projects in various stages of design, planning and construction worldwide. Their most recent course to open was the highly-acclaimed 18-hole championship course at Club Terraviva in Scottsdale, Arizona.

GOLF COURSE NEWS

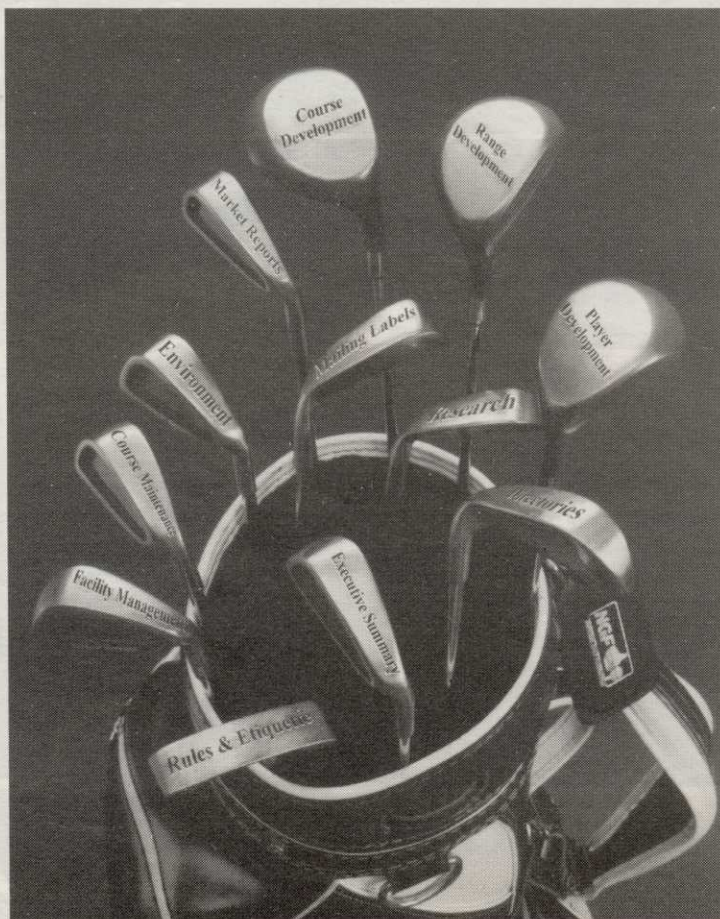
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Planned courses in the U.S.A.

Location	Course Name	Type	Holes	Work	Contact
Alaska					
Juneau	Eagle Tree GC	D	18	N	Jack Nicklaus
Arizona					
Prescott	Hassayampa CC	P	18	N	Phil Ordway
Scottsdale	Pinacle Peak	P	18	N	John Lang
California					
Carlsbad	TBD	M	18	N	John Cahill
Cloverdale	TBD	D	18	N	Jim Teague
Fremont	Avalon	D	18	N	R.T. Jones II
Fresno	TBD	D	9	N	B. Quillian
LA Habra	TBD	TBD	18	N	Don Means
La Quinta	Travertine	TBD	18	N	James Lennon
Los Gatos	TBD	D	18	N	Pete Denevi
Moorpark	Happy Camp GC	TBD	36	N	Ralph Mahan
Novato	TBD	TBD	18	N	F. Alexander
Rancho Palos Verdes	TBD	D	18	N	York Group
San Luis Obispo	El Chorro GC	M	18	N	John Harbottle
San Martin	TBD	D	18	N	Tom Hix
Santa Maria	TBD	D	18	N	Brent Shriner
Santa Rosa	TBD	M	18	N	J.Vannatta
Colorado					
Fort Lupton	Fort Lupton Muni	M	18	N	Jerry Pineau
Pitkin County	TBD	D,P	36	N	Jody Edwards
Snowmass	TBD	TBD	18	N	Peter Droste
Westminster	TBD	M	18	N	Pete Dye
Connecticut					
Mansfield	TBD	D	9	N	Greg Blessing
New Milford	Candlewood Valey CC	P	18	R	Barry Ames
Seymour	TBD	TBD	18	N	Chris Bargas
Florida					
Boca Raton	Boca Raton Resort Club	D	18	N	Mike Glennie
Jacksonville	Pablo Creek Club	P	18	N	Tom Fazio
Jupiter	Abacoa	D	18	N	G. Guardiola
Leesburg	TBD	D	18	N	Ron Garl
Georgia					
Columbus	TBD	D	18	N	N/A
Toccoa	Toccoa CC	D	9	A	Lee Bowen
Illinois					
Cahokia	Cahokia Muni	M	18	N	Michael King
Hanover Park	TBD	M	9	N	S. Crawshaw
Litchfield	TBD	M	18	N	Wm. Cornman
Marion	TBD	D	18	N	Steve Smyers
Tuscola	Iron Horse GC	D	18	N	Paul Logue
Indiana					
Danville	TBD	D	18	N	Heritage Golf
Edinburgh	Edinburgh Muni	M	18	N	Bob Davis
Garrett	Garrett CC	D	9	A	Richard Sholl
Indianapolis	Woodland CC	P	18	R	Pete Dye
South Bend	Elbel GC	M	18	R	Mike Garbacz
Iowa					
Coralville	Brown Deer GC	D	9	A	William Spear
Waterloo	South Hills GC	M	9	A	Paul Huting
Kansas					
Eudora	TBD	D	9	N	Jim Bigger
Kentucky					
Cadiz	Sally Buffalo Park	D	18	N	Henry Liaw
Maine					
Sanford	Sanford GC	D	9	A	Head pro
York	The Ledges	D	18	N	Brad Booth
Maryland					
Cumberland	TBD	D	18	N	Robert Peters
Seaford	TBD	D	18	N	D. Slatcher
Massachusetts					
Acushnet	TBD	M	18	N	G. Cornish
Adams	Greylock Center GC	D	18	N	Peter Webber
Dighton	TBD	D	18	N	Art Miranda
Hanover	TBD	D	18	N	Robert White
Hanson	TBD	TBD	18	N	Philip Burne
Lawrence	TBD	M	9	N	L. McCabe
Randolph	TBD	M	18	N	Richard Wells
Richmond	Yokun Seat GC	D	9	N	L. Davis
Wilbraham	Wilbraham CC	D	9	A	James Leahey
Michigan					
Acme	Grand Traverse	D	36	N	Kim Chappell
Detroit	Boblo Island	D	18	N	John Oram
Homestead	Glen Arbor	D	18	N	Robert Kuras
Leelenau County	Sugar Loaf	D	18	N	Arnold Palmer
Northville Twp.	TBD	TBD	9	N	N/A
Port Huron	TBD	D	18	N	David Kapa
St. Louis	Edgewood Hills GC	D	9	A	Ed Dangler
Traverse City	TBD	D	9	N	Steven White
Tuscola	The Timbers GC	D	18	N	Tim Zehnder
Minnesota					
Clara City	TBD	D	9	N	J. Ammerman
Fairbault	TBD	D	18	N	Brad Breyer
Renville	Renville Muni	M	9	N	Duane Hebert
Mississippi					
John Kyle State Pk.	TBD	D	18	N	Robert Cupp
Missouri					
Springfield	TBD	M	18	N	Jim Payne
Nebraska					
Bellevue	TBD	D	18	N	Ron Smith
Gering	Gering GC	M	9	A	Wally Baird
Nevada					
Carson City	Empire Estates	TBD	27	N	Dwight Millard
Elko	TBD	D	18	N	C. Williams
Minden	Genoa Lakes	D	18	N	John Harbottle
Yerington	Mason Valley CC	D	9	A	Linda Giorgi
New Jersey					
Atlantic City	TBD	D	18	N	E. McGettigan
South Brunswick	Davidson Park	D	18	N	Ralph Albanir
New York					
Southeast	TBD	D	27	N	Edward Nagel
Tonawanda	Deerwood GC	M	9	A	J. McGinnis
North Carolina					
Cleveland	TBD	D	18	N	Wells Hall

Location	Course Name	Type	Holes	Work	Contact
Ohio					
Beavercreek	Beavercreek Muni	M	18	N	D. Dubruel
Bethany	TBD	D	18/27	N	M. Hinenkamp
Cedarville	TBD	M	18	N	S. Bogenschutz
Medina	TBD	D	18	N	Blue T Golf
Troy	Miami Shores GCM	M	9	R	F. Garbin
Oklahoma					
Enid	MeadowLake GC	M	18	R	C. Stevenson
Lawton	TBD	D	18	N	Comanche Cnty
Madill	TBD	M	18	N	Paul O'Keefe
Oregon					
Bend	GC of Greater Oregon	D	18	N	William Bundy
Pennsylvania					
Coalport	TBD	D	18	N	Paul Winslow
Upper Makefield	Jericho Nat'l GC	D	18	N	M. Hurdzan
West Bradford	TBD	P	18	N	Philip Larsen
West Vincent	TBD	TBD	18	N	Gibbs LaMotte
Rhode Island					
Tiverton	TBD	M	18	N	Paul Northrup
South Carolina					
Myrtle Beach	TBD	TBD	36	N	Dan Maples
Rock Hill	Waterford Business Pk	D	18	N	Hale Irwin
Tega Cay	TBD	D	18	N	Steve Mudge
Tennessee					
Collierville	TBD	D	18	N	Steve Schertel
Kingsport	MeadowView	M	18	N	Denis Griffiths
Morristown	Patriots Hills GC	TBD	18	N	RT Felknor
Nashville	State Park GCs	D	72	N	Jack Nicklaus
Oak Ridge	Oak Ridge CC	P	18	R	Robert Cupp
Texas					
Amarillo	Mariah Golf Links	D	9	A	Tom Doughtie
Corpus Christi	TBD	M	18	N	M. Matthews
Euless	Euless Muni	M	18	N	Tom Hart
Georgetown	Sun City	D	72	N	Greg Nash
Plano	Ridgeview Ranch GC	M	18	N	Jeff Brauer
Port Arthur	Island G&CC	D	18	N	Ben Parks
San Angelo	Northbank	TBD	27	N	Ron Jones
Weslaco	Weslaco Muni	M	18	N	Wai-Lin Lam
Utah					
Farmington	TBD	M	18	N	Darin Hicks
Syracuse	TBD	TBD	18	N	Mike McBride
Wasatch Mtn. St. Pk.	TBD	D	9	N	Parks Dept.
Virginia					
Charlottesville	TBD	D	18	N	Pat Mulhaney
Williamsburg	Williamsburg Muni	M	18	N	Stuart Smith
York	TBD	M	18	N	C. Sonderman
Washington					
Snoqualmie	Snoqualmie Ridge	D	18	N	Jack Nicklaus
Wisconsin					
Beloit	Rock County GC	D	18	N	Philip Boutwell
Beloit	TBD	TBD	18	N	Don Backus
Dodgeville	Greater Heights CC	P	27	N	Ken Berg
Eau Claire	Mill Run GC	D	9	A	Curtis Ray
Madison	North-East GC	M	18	N	Dan Stapay

Courses approved in the United States

Location	Course Name	Type	Holes	Work	Contact
Arizona					
Phoenix	Kierland GC	D	27	N	Scott Miller
California					
Rancho Cucamonga	TBD	D	18	N	Arnold Palmer
Visalia	Valley Oaks GC	D	9	A	M. Poellot
Colorado					
Commerce City	Buffalo Run	M	18	N	Keith Foster
Florida					
Bonita Springs	Highland Woods	P	18	N	Gordon Lewis
Ft. Lauderdale	Weston Hills	D	18	N	R.T. Jones II
Melbourne	Aquarina	TBD	18	N	C. Ankrom
Miami	Doral Golf Resort	D	72	R	Ray Floyd
Idaho					
Nampa	Centennial GC	D	27	N	T. Funkhouser
Illinois					
Carlyle	Governors Run	D	9	N	Don Horrell
Lena	Lena GC	D	18	A	Troy Confer
Lombard	Wester Acres GC	M	9	A	S. Halberg
Indiana					
Indianapolis	Coffin GC	M	18	R	Tim Liddy
Indianapolis	TBD	D	9	N	RN Thompson
Maine					
Rockport	Samoset Resort	D	18	R	G. Cornish
Michigan					
Greenville	Glenkerry GC	D	18	N	W. Bowen
Petoskey	Bay Harbor	D	18	N	K. Keiswetter
Traverse City	TBD	D	9	N	Steve White
Minnesota					
Atwater	Island Falls GC	D	18	N	C. Zaeska
Missouri					
Fulton	Tanglewood GC	D	18	N	Jerry Loomis
Montana					
Kalispell	Grizzly GC	D	18	N	Brian Cloutier
North Carolina					
Mecklenburg	TBD	D	18	N	G. Williams
Ohio					
Mason	Heritage Club	TBD	18	N	P.B. Dye
South Carolina					
Kiawah Island	River Course	P	18	N	Tom Fazio
Texas					
Castroville	Alsatan GC	D	18	N	Steve Mrak
Virginia					
Virginia Beach	Bayville GC	P	18	N	Tom Fazio
Washington					
Snoqualmie	Snoqualmie Ridge	D	18	N	Jack Nicklaus
Wyoming					
Casper	Casper Muni	M	9	A	Keith Foster

RENOVATION BY GEORGE

LYNCHBURG, Va. — Lester L. George of Colonial Golf Design, Inc. in Richmond, has been hired by Boonsboro Country Club here to lead the club in its development of a long-range master plan to renovate and restore its golf course in the coming months. Boonsboro, originally designed in 1977 by Fred Findlay, will be the site of the 51st Virginias/Carolinas Matches in 1996.

Hamilton comment: Job prospecting

Continued from page 13

demand. He also said, "We had many more jobs for qualified students than students to fill the positions."

A certain portion of the assistant superintendent positions are the usual turn-over from the traditional positions.

However, in the last 10 years, and still continuing today, a significant amount of assistant and second assistant positions has been created. This growth is supported by

statistics from the Golf Course Superintendents Association of America (GCSAA), which reported that in 1988, there were 450 assistant superintendent members compared to 2,150 today! Some of these new positions have been created by giving the person who has been doing the job all along an official title, and hopefully a raise, too. That's all right because at least it creates a position that should be filled if it is vacated.

Other assistant positions

have been created out of necessity. It goes back to the development and progression of the superintendent's role and responsibilities of the golf course.

First of all, the title "superintendent" can run the gamut of responsibilities from the local nine-hole muni to the elaborate 36-hole country club. So the title "superintendent" is somewhat ambiguous. If you could determine an average of responsibilities for superintendents, you would probably find the actual turfgrass management (agronomically speaking)

would probably constitute a small percentage of time. Hence, there is a need for an assistant to perform and supervise the majority of turf-related maintenance activities. These are the types of positions that many of the turf graduates secure upon graduation.

These positions require good agronomic skills, but less "people" and business skills, when compared to the superintendent.

One of the most difficult points to get across to graduating students is the fact that they have basically been trained to grow grass, which in reality is only a small part of the super-intendent's role. However, when you consider that the only practical experience they have is working on a crew, their vision of a superintendent is giving the crew orders in the morning, talking with salespeople, knowing a little about turfgrass, and (of course) playing golf whenever you want, for free!

I think anyone considering golf course management for a career should attend a few greens committee meetings (preferably right before or after aerification), run the crew for a few months, spend many hours in the pro shop on ladies' day and men's Tuesday night leagues, and develop at least one budget.

Unfortunately, this would probably decrease the number of applicants we would have applying for our programs.

The growth in second assistant positions is also out of necessity. As superintendent positions have evolved, the demand for quality people has increased, and assistant superintendents have been a consistent source of quality and trained individuals. Which means that as the traditional assistant superintendent positions have been used to train people for other superintendent positions, a major void was created at the club where the assistant was working. This would leave the superintendent of that club in a retraining mode, which gets old after losing a few good assistants. Enter, the second-assistant superintendent position. These positions are usually down the totem pole, but still carry a modest level of responsibilities.

Also, at some of the upper-echelon clubs, the positions of assistant-in-training (AIT) are being created. These AIT positions are for people that may have the potential to be assistants, but require more training and experience in order to do so. It is a nice way to say:

"We think you have what it takes, but not quite enough of it, yet. Work with us, and we'll get you there."

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BRIEFS



NGCOA ELECTS OFFICERS

ORLANDO, Fla. — The National Golf Course Owners Association elected its officers during the association's recent annual conference here. Re-elected were Jim Scott of Gull Lake View in Augusta, Mich., president; Cliff Rampy of Treeline Golf Club Inc. in Tomball, Texas, vice president; Bill Stine of Kissimmee (Fla.) Bay Golf Club, secretary; and Jerry Hollingsworth of Singing Hills Golf Club in El Cajon, Calif., treasurer. Also newly elected to the board of directors were Roy Clark of Mill Creek Golf Club in Mt. Frontenac, Minn.; Ian Kunesch of Rolling Greens Golf Club in Newton, N.J.; and Kelly Miller of Pine Needles Country Club in Southern Pines, N.C.



Jim Scott

CLUBCORP ACQUIRES COTO DE CAZA

ORANGE COUNTY, Calif. — A Club Corporation of America subsidiary has acquired Coto de Caza Golf & Racquet Club. The club's second Robert Trent Jones Jr.-designed course is scheduled to open this spring. This is the fourth country club a CCA subsidiary has purchased in Southern California in the past year. Mission Hills Country Club (CC) in Rancho Mirage, Desert Falls CC in Palm Desert and Indian Wells CC are the others.

CMAA PROMOTES AUSTIN

ALEXANDRIA, Va. — The Club Managers Association of America has promoted Alyson Austin to manager of its Premier Club Services Department. In her new post, Austin will help develop and implement new programs, products and services for club operations. She will also monitor legislative activity and report to members critical information on issues of concern to the club industry. Austin was previously education coordinator.

AGC'S JAMES EXPANDS DUTIES

DALLAS — Ken James, senior vice president of operations, Central Region for American Golf Corp., has added the Eastern Region to his management responsibilities. James, who will continue to work out of Dallas, now supervises operations at 70 resort and daily-fee golf courses in 18 states. James joined AGC in 1983 as regional director for Texas.



Ken James

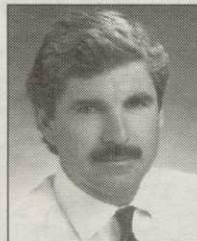
MARKETING IDEA OF THE MONTH

Charleston adds automated tee time network

By PETER BLAIS

CHARLESTON, S.C. — Sandwiched between Myrtle Beach and Hilton Head, Charleston is often overlooked as a golf destination. But course owners, lodging providers and civic officials hope their soon-to-be-unveiled central tee time reservation network will change that.

"Golf has grown significantly as visitors look for things to do in the Charleston area," said Kate Darby, director of visitor services for the city. "We hadn't aggressively promoted ourselves as a golf destination until recently. By [electronically] tying tee times and golf courses together, we hope to increase [tourist] revenues significantly in the Charleston area."



Mike Tinkey

The PAR Golf System network, which is scheduled to come on line in June, is the result of a rigorous, six-month search for a reservation network tailored to the needs of the Charleston area, according to Mike Tinkey of Sports Management and Marketing Services, who facilitated the arrangement between PAR and a consortium of course and lodging facility operators as well as the Charleston Area Convention and Visitor Bureau.

The system will provide one-stop shopping for golf and lodging reservations, electronically linking 17 courses and a dozen lodging providers. Getting course

Continued on page 59

Chicago firm buys GreenVisions Inc.

By PETER BLAIS

CHICAGO — Crown Golf Properties has acquired GreenVisions, Inc., a Chicago-based golf management and construction company. The agreement melds two management firms that historically concentrated on different market niches.

Crown, also based in Chicago, owns and manages upscale golf facilities, resorts and golf real estate properties. GreenVisions manages public golf facilities under contract or long-term lease, including a number of municipal layouts. GreenVisions has also built and/or grown in 17 courses since 1989.

"Our strengths are very complementary," noted Tim Miles Sr., president of GreenVisions. "Our partnership will allow us to access the entire market by offering the most comprehensive package of experience and expertise."

Under the agreement, Crown remains general partner. Limited partners who will actually manage the business include Crown's Bill Wolf and Scott Flynn and GreenVisions' Miles, Allan Swaringen and former

Continued on page 59



Blackthorn Golf Club is one of North American Golf's many Midwest properties.

North American Golf Inc. at crossroads

By PETER BLAIS

A fork in the road looms ahead for North American Golf (NAG).

The Lombard, Ill.-based company recently signed a financial agreement with the real-estate subsidiary of a major utility. The agreement will provide NAG the capital to build, manage and/or buy more courses as it seeks to become an increasingly significant player in the management company market, according to Chief Operating Officer Michael Rippey.

Meanwhile, since the start of the year, a half-dozen firms have approached Rippey with offers to buy his company and consolidate NAG's operations with their own.

Go it alone or consolidate. Right fork or left.

"There are many companies out there like ours where the owners have a lot of sweat equity into the business," said Rippey, whose firm has

Continued on page 56



Clubhouse view at Prairie Landing

COMMENTARY

Credible feasibility work rare but key to successful golf course development

JAMES E. McLOUGHLIN

We constantly hear of the need for more golf courses across the country. The often-heard cry is "one new golf course opening a day would not be enough." Accepting the premise, it is surprising the industry has so little feel for what it takes to develop golf courses on a consistent basis. Consequently, national golf development has been slowed consistently and unnecessarily.

For example, the basic prerequisites for developing a golf course are: (i) the availability of a sufficient amount of net usable land that is permissible; (ii) credible feasibility analysis; and (iii) adequate funding. Only when all three components are in place can a golf course be developed. Gaining access to qualified land is the easiest of the three tasks. More often than not, the stumbling block is the lack of credible feasibility work, which the industry erroneously takes for granted as an automatically deliverable service.

Common opinion throughout the golf community and its associated media is that the primary reason why more golf courses are not developed is due to lack of consistent adequate funding. This is not a valid premise. There has been a good supply of working capital available for golf course development for some time.

However, the combination of private money availability and the recent Orange County, Calif. bankruptcy has shut down public-sector funding sources — leaving private funding as the sole source of development money today. This is not too serious a problem because private money has been funding up to 80 percent of all golf development through the early 1990s.

The purpose of this commentary is to advise that accessible private-source development funding is not always available to golf because credible feasibility services — without which no

Continued on page 58

LESSIG NAMED DIRECTOR OF GOLF AT SUNRIDGE

FOUNTAIN HILLS, Ariz. — Jeff Lessig has been hired as director of golf at SunRidge Canyon, a new master-planned golf community developed jointly by SunCor Development Co. and MCO Properties. Lessig will manage all golf course operations at the Keith Foster-designed layout which is scheduled to open by mid-November.

North American

Continued from page 55

been involved in more than 80 projects and currently manages seven.

"We started this company nine years ago. But there's still a big gap between ourselves and the really big guys. Companies like ours have to worry about holding our own while staying competitive with the larger firms. It's a tough choice."

For now, NAG will continue to mix it up with the big boys on its own. And Rippey is confident his firm can compete.

"There are three things that differentiate us," Rippey said. "First, we have the talent and expertise of the larger companies. Our senior management team is a match for anyone. We're small and can stay close to our clients, but our management team reads like that of a larger firm. That positions us well for the future."

"Second, we're a legitimate full-service firm that can take a project from conception through actual operation. That differentiates us from many other supposedly full-service companies that are actually a consortium bring-

ing various firms together to complete a project. A truly full-service firm is an advantage to a new developer because he can look to one company for accountability all the way down the line."

"Third, we operate a wide range of facilities. Our most significant is Medinah (Ill.) Country Club. It's 54 holes, a prestigious layout with 300 employees. At the other end of the spectrum we have some average-cost, daily-fee facilities where we've succeeded in producing a quality golf experience and a strong bottom line. Some people say it's a mistake to have a wide fo-

cus. But because of our people, we can do a good job anywhere."

In addition to Medinah, NAG manages Blackthorn Golf Club (GC) in South Bend, Ind.; Hawk Ridge GC in Lake Saint Louis, Mo.; St. Lawrence GC in Canton, N.Y.; The Club at Mill Creek in Mebane, N.C.; Prairie Landing GC in West Chicago, Ill.; and Emerson (N.J.) GC.

In each case, the company has assigned a general manager to work with the owner. The GM communicates daily with the corporate vice president for operations.

In 1985, Rippey founded Can-Am Golf Enterprises, a full-service golf company that evolved into North America Golf. As COO and one of five principals in the company, Rippey directs all business development activity at NAG facilities.

The firm recently added two golf industry veterans to its operations management group.

Allan Irwin is vice president of operations. In that capacity he heads the management teams at Medinah, Prairie Landing, and The Club at Mill Creek. Irwin formerly directed the club management division at Jack Nicklaus Development Co. and at one time managed Sentry World in Stevens Point, Wis.

Joseph Zaleski is vice president of golf operations. He oversees Blackthorn GC, Emerson GC, Hawk Ridge GC and St. Lawrence GC. A Class PGA professional, he has extensive daily operations experience. Zaleski was formerly chief operating officer of Fore Golf Inc. and vice president for operations of the Fairway Group.

Another key manager is Director of Construction and Maintenance Mark Fischesser. A Michigan State University graduate, he spent several years as a European project manager for Robert Trent Jones Sr. and later became director of maintenance for a European golf course management company. Fischesser directs on-site design and construction activities and serves as a consulting superintendent to NAG-operated courses.

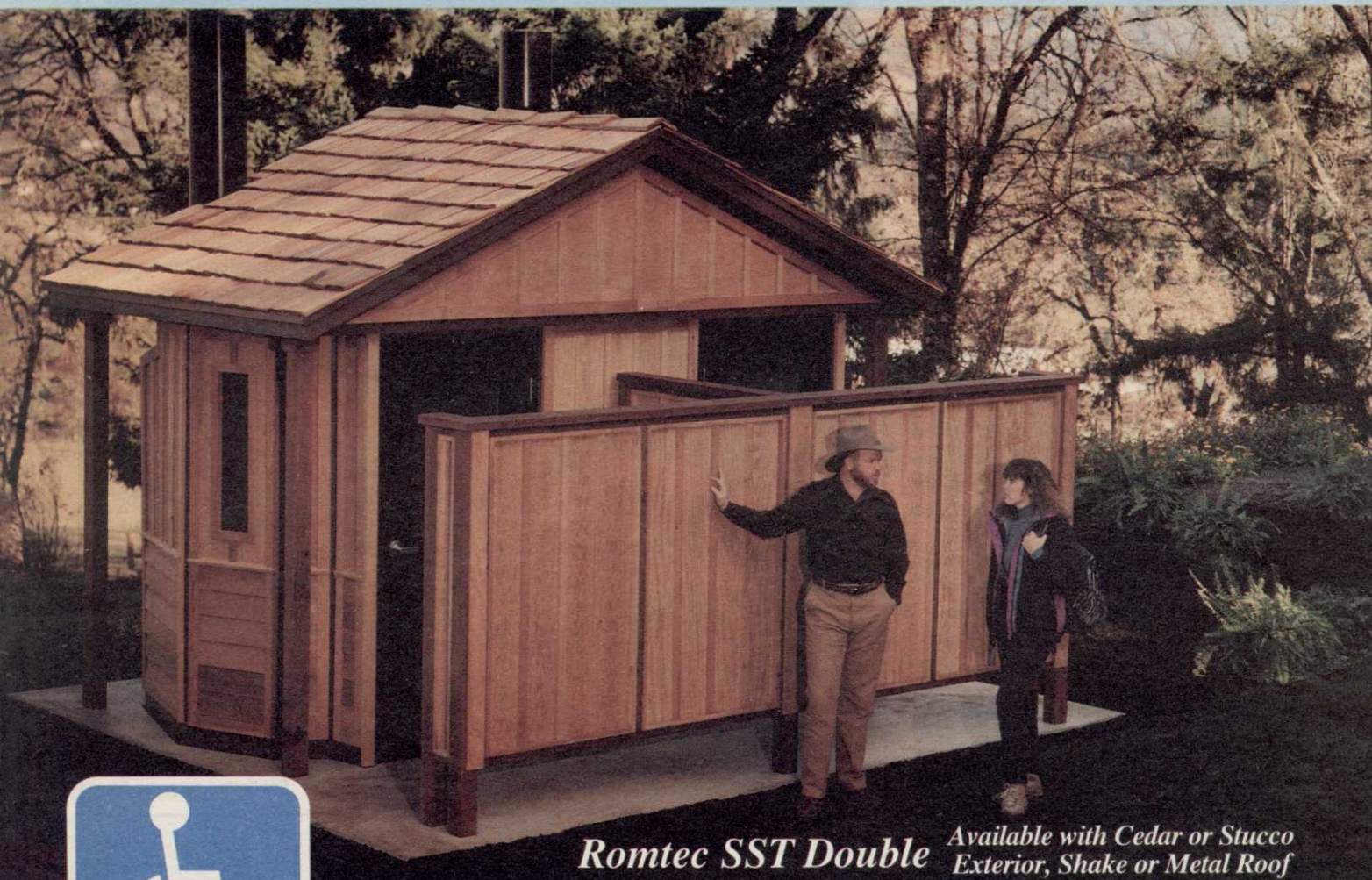
"We have just three layers of management—the principals, two vice presidents and the people who work at the facilities," Rippey said. "That allows senior management to get to know our clients and have personal contact."

With the addition of a new financial partner, NAG management considered six course acquisitions in March alone, Rippey said. The firm is looking for public facilities in the \$2-to-\$5 million range with surrounding developable property. The company is concentrating on cities of 300,000 to 1 million people east of the Mississippi River.

"It's much easier to market a course in a community that size than a large city," Rippey said. "You have to spend \$100,000 on advertising to even make a dent in Chicago. In South Bend we can get a lot of attention for \$25,000."

GOLF COURSE NEWS

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Ocean Course

Continued from page 1

actual outcry auction, which will take place at the Omni Hotel in Charleston. The second requirement is ability to manage the course, either through personal experience or by hiring a qualified management company.

Management ability will be especially important at the Ocean Course, a former holding of bankrupt Landmark Land Co. and the last marquee golf facility being auctioned off by the Resolution Trust Corp.

The bankruptcy court nixed a proposed deal to buy the course for \$27,000,100 earlier this year when it determined the principals may not be able to follow through on the environmental mitigation efforts needed at the environmentally sensitive layout. The principals were Virginia Investment Trust (VIT), operators of Kiawah's other three resort courses and the Kiawah Inn; Kiawah Resort Associates (KRA) developers of the private Tom Fazio-designed course currently under construction and a major residential developer on the island; and the Audubon Society of New York.

The RTC has since agreed to complete the on- and off-site mitigation work itself, freeing any new buyer from that responsibility, Harris said. But the winning bidder for the 214-acre property, much of which is located within a unit of the Coastal Barrier Resources System, will have to demonstrate the ability to operate the environmentally sensitive site. The RTC plans to complete all mitigation work prior to the July 19 deadline for closing, two months after the winning bidder is announced.

A seven-member panel briefly addressed prospective bidders at the April 5 gathering. Among the panelists were Philip Maloney, a RTC attorney; Craig King of J.P. King Auction Group, the Gadsden, Ala.-based auctioneer who will conduct the auction; Jack Carney of Landmark Land Co.; Greg French, director of golf at the Ocean Course; Jack Rosenfield, a RTC real-estate representative; and Richard Searles of CRT Trust Advisors Inc., which has performed due diligence work on other RTC golf properties.

Panelists reviewed the information in the \$100 Detailed Information Package many of the bidders had previously received. They also explained that access to the due diligence library located in New Orleans would be available for a \$5,000 refundable deposit from qualified bidders. Bidders had until April 19 to qualify with RTC. Information in the due diligence library will be regularly updated until May 5, Harris said.

The Reserve Price reflects the amount the bankruptcy court had agreed to accept from VIT, KRA and New York Audubon GOLF COURSE NEWS

before that deal fell through. That differs from RTC's use of Derived Investment Values (DIVs), which are determined from 10-year cash-flow projections, in estimating values for other Landmark properties.

RTC will accept sealed bids until 11 a.m. on May 19. Bids will be opened that morning. Those bidding at least the \$27,000,100 Reserve Price will be invited back that afternoon to participate in an open outcry auction. Bidding will begin at the highest sealed bid. RTC will accept the highest cash offer.

In addition to the course, the

property includes a 12,000-square-foot clubhouse with restaurant, pro shop and cart storage.

The Kiawah Resort has the rights to 60 percent of all available rounds at the facility.

VIT had been managing the course, but RTC brought Landmark back to manage the property several months ago after the earlier deal fell through, Harris explained.

"The course and clubhouse are in excellent condition," he said. "The RTC has done a very good job maintaining all the courses it has taken over."

ADAG tournament has new sponsor

ENGLEWOOD, Colo. — four electric scooters, power Electric Mobility Corp. of wheelchairs and other personal mobility products, according to President Michael Flowers. In 1994, 42 teams of both able-bodied and disabled golfers participated in the tournament. At least 60 teams are expected to take part this year.



Michael Flowers

Electric Mobility manufactures the Rascal and Chauffeur.

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John Clark (far right) is toasted after he turned in the first hole-in-one at new Turnbull Bay Golf Course. Celebrating with him are his wife, Frances, left, and Turnbull course designer Gary Wintz, along with waitress Alison Boyce.

On-course toast draws media attention to new Fla. layout

NEW SMYRNA BEACH, Fla. — Corporate recognition, course credibility and image enhancement were almost immediate, and media attention was "shocking" when Turnbull Bay Golf Course celebrated its first hole-in-one here.

"This helped business immediately, and gave us a good name as a friend in the community," said Turnbull Bay advertising consultant Bill Denmark of DenMar Advertising Associates.

The course developer, Classic Golf of Florida, pulled out all the stops when New Yorker John Clark sand-wedged the ball off the 6th tee and into the cup on the 106-yard hole. A local restaurant donated a \$100 bottle of Dom Perignon, shrimp cocktail, linens, crystal — and even a waitress — to the cause. Instructing staff members to seat Mr.

Clark and others in his foursome on the 6th green, course designer Gary Wintz proposed a toast to honor Turnbull Bay's first hole-in-one.

Thirsting for media attention for its new course, Classic Golf got its wish. By early April, the toast and celebration had been covered by the *Orlando Sentinel*, *New Smyrna News Journal*, *New Smyrna Observer*, *Seniors Today* newspaper, *Florida Living* magazine and *Golfers Dream* magazine. Now add *Golf Course News*.

"We feel it was important to do something special for Mr. Clark," said managing partner Jim Deeley. "Classic Golf represents the new kids in this community. Our corporate policy is service-oriented and our philosophy is that actions speak louder than words."

McLoughlin

Continued from page 55

investor will commit to a project — is not available. There may be fewer than five people across the country with the experience to generate a meaningful feasibility report, which creates a substantial "bottleneck" to golf course development.

This has not been a problem until recently because during the 1980s when public money was a ready source for golf development, municipal "guarantees" negated the need for credible feasibility work. Consequently, the quality of feasibility work failed to mature through the years.

Today, private investors conduct exhaustive due diligence examinations of potential projects and the feasibility reports presented to them — most of which fail to pass the test. Inferior feasibility work today stops more golf course development projects than good feasibility work facilitates.

This problem is not being resolved, or even addressed because: (i) so few people are aware the problem exists; (ii) current computer software packages lend more credibility to feasibility report content than it deserves (like good icing hiding a bad cake); and (iii) eager first-time developers (always in the majority in golf) are

not discerning and accept virtually any level of feasibility work product — a deceptive practice because potential investors are discerning and often reject this same feasibility work.

Before identifying the problems associated with feasibility work today, it should be noted that a feasibility analysis consists of two components: (i) a demand or market analysis; and (ii) *pro forma* business plan projections.

Demand/Market Analysis:

The basic logic used within more than 90 percent of all demand-analysis work across the country is based solely on historic precedent. For example, the process suggests that if approximately 10 percent of the general population plays golf now, which is the case, 10 percent will play golf within the designated geographic regions where the project site is located. Consultants then simply measure whether present play occupies more or less than 10 percent of the population within the target market and conclude either (i) there is no need for a new golf course; or (ii) there is need, for example, for 18 new golf courses.

The inherent problems associated with this static evaluation are that the process: (i) does not allow for potential growth in the playing population; (ii) is locked within geographically defined regions (villages,

towns, counties, etc.) and does not take into account the driving patterns of golfers; (iii) often fails to distinguish between the various levels of applicable fee schedules at existing courses, which directly impact the volume of play analyses; and (iv) fails to identify necessary time lines for development projects. Just stating that a region "can accommodate up to 18 new golf courses" is not enough to satisfy many developers and most investor groups.

The issue is further complicated by the fact that there are two diverse categories of organizations preparing feasibility work within the golf industry today: (i) a liberal wing that never tells a developer not to commit to a project and, therefore, loses credibility; and (ii) a conservative wing (mostly national accounting firms) that is so cautious that its work products often stop otherwise feasible projects.

One of the bigger problems facing golf course development is that it often difficult to gain feasibility approval for new public golf courses projecting higher fee schedules for a region, i.e. the equivalent of defining a new market. The static/conservative market analysis often used within golf today simply concludes that if it does not already exist it will not fly.

Pro Forma Business Plans:

The basic problem within the fiscal planning arena is the vast majority of people preparing *pro forma* projections lack direct operating and/or financing experience. Consequently, most feasibility studies incorporate some combination of the following deficiencies within their scope: They (i) evade the issue by not providing financial planning; or (ii) make serious assumption mistakes when planning financially; or (iii) fail to summarize projections via an essential cash flow statement; or (iv) direct financial planning to the understanding level of more receptive client developers and not to the level of a more scrutinizing investment market; or (v) prepare fiscal planning without benefit of a defined master site plan, which negates any real opportunity to accurately define profit centers and, therefore, revenue flow.

The collective impact of the above is that the vast majority of feasibility work prepared today by independent consulting firms fails to command the respect of the investment community. Fortunately, while traditionally in the minority, experienced and self-financed developers are able to avoid these pitfalls and continue to build successful golf course operations across the country.

What the situation calls for is a national certification program to educate and qualify consultants to prepare credible feasibility work for golf.

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CIRCLE #152

Charleston

Continued from page 55

owners and lodging operators to agree on the components of an electronic system took many group meetings and consultations with system manufacturers to find out what was technologically feasible.

What emerged was five pages of criteria. A request for proposal was sent to a number of electronic tee time systems. Among the general requirements were:

- Sources and method of reservations.
- Strategic direction.
- Security and method of rotation of reservations/confidentiality of proprietary information.
- Information on the golf customer, an exceptional and flexible database.
- Flexibility, ease and speed for reservations and the electronic starter sheet.
- Course information, i.e., make it clear and easy to sell for the reservations.
- Sample screens and reports.
- Tournament and group events management and scoring.
- Service and dependability of system.
- Other considerations, add-on accessories and features.
- Financial stability of company.

Course and lodging operators eventually selected San Francisco-based PAR from among five companies that were asked to demonstrate their systems. Others considered were Smith Business Systems of Canton, Ohio; Double Eagle of Pleasanton, Calif.; SCAT of Charleston; and XRS of Tulsa, Okla.

"Our group was very impressed with PAR's performance in other markets, the itinerary search, the ease of operations of the touch-tone feature, the overall speed of the system and PAR's vision of a global reservations link for golf packages," Tinkey said.

Courses on the network will include three at Kiawah Island Resort (Marsh Point, Osprey Point and Turtle Point), both Seabrook Island Resort courses (Crooked Oaks and Ocean Winds), and the two at Wild Dunes Resort (Harbor and Links). Others are Charleston National Country Club (CC), Coosa Creek CC, Crowfield Golf & CC, The Dunes West Golf Club, Legend Oaks, Oak Point GC, Patriot's Point Links, King's Grant Golf & CC, Shadowmoss Plantation GC and Stono Ferry GC.

The cost for courses to sign onto the system depends on the amount of equipment needed to participate, Darby said. "We had 100 percent acceptance of the fees," Tinkey noted.

The costs of researching the various systems came from the Charleston Area Visitors Bureau while marketing was funded, in part, by matching funds from the state government. "By undertaking group actions like this, golf destination areas can become eligible for various economic

development or state tourism funds," he added.

Tinkey believes more golf destinations will install electronic tee-time reservation networks in the next few years. An area needs a minimum of eight to 10 courses to sign on in order to give golfers enough alternatives, he added.

"Airlines introduced computerized, on-line reservation systems in the 1960s," Tinkey said. "Car rental agencies came aboard in the 1970s and hotels in the 1980s. The 1990s and beyond will see attractions like golf courses and theme parks joining networks."

Crown/GreenVisions

Continued from page 55

majority stockholder Ram Thukkaram. GreenVisions Golf and GreenVisions Golf Construction become subsidiaries of the new Crown Golf Properties and will retain existing staff.

"We can provide a full range of services to a broad clientele, while creating new opportunities for our employees," Flynn said.

Added Miles: "We're keeping the GreenVisions name for the construction part of the business. Crown will own, lease and manage the facilities. Our intent is to build substantial operations in both areas. As for building new courses or renovating existing [Crown] ones, nothing definite

has been determined at this time."

The new Crown Golf Properties manages 18 golf facilities in six states. Crown-owned operations include Stone Bridge Country Club (CC) in Aurora, Ill.; Bardmoor North Golf Club (GC) and the Bayou Club in Largo, Fla.; the golf operations at Snowmass (Colo.) Lodge and Club and the Ojai (Calif.) Valley Inn. Crown also manages Empire Lakes GC in Rancho Cucamonga, Calif.; Wood Ranch CC in Simi Valley, Calif.; the Hamptons GC in Hampton, Va.; Riverside and Blackhawk golf courses in Janesville, Wis.; Settler's Hill GC in Batavia, Ill.; Glendale Lakes GC in Glendale Heights, Ill.; Highland Park (Ill.) CC; Lakewood GC in Village of Lakewood, Ill.; and Heather Ridge GC in Gurnee, Ill.



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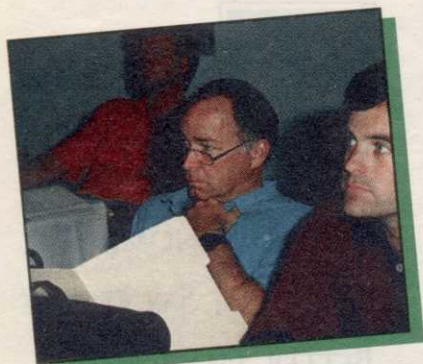


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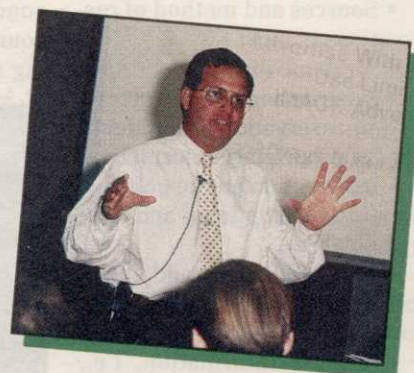
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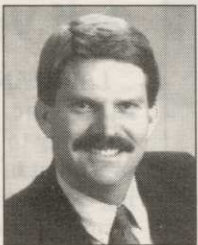
CLAYTON PROMOTED AT SANDOZ

DES PLAINES, Ill. — Sandoz Agro, Inc. has named Gary Clayton business manager, turf and ornamental products, within the company's Specialty Business Unit. Clayton was most recently business manager for the company's mosquito control and ornamentals products. Clayton's experience includes positions as VP of operations for Perma-Green; director of technical services for the Professional Lawn Care Association of America; turf and ornamental market manager for PBI Gordon; and turf distributor sales representative for Pro Turf Specialties.

SEARIGHT TO MANAGE SRO-DALLAS

CORVALLIS, Ore. — Seed Research of Oregon, Inc. has appointed Pat Searight area manager for the Dallas, Texas, operation.

He will be responsible for sales of Seed Research's cool- and warm-season grass seed program in Central Texas. Searight has a bachelor's degree in



Pat Searight

agronomy with a turfgrass management specialty from Texas A&M. Prior to joining Seed Research, he was an instructor with Texas State Technical College and formerly held several golf course superintendent positions.

DUFFY MOVES UP AT GOULDS PUMPS

SENECA FALL, N.Y. — Richard C. Duffy of the Water Technologies Group at Goulds Pumps, Inc., has been named staff vice president-corporate development reporting to Thomas C. McDermott, president and chief executive officer. Duffy began his 24-year career in the pump industry with Morris Machine Works of Baldwinsville, N.Y., later acquired by Goulds in 1981. In 1984, he held the position of marketing manager for the Texas Division, in Lubbock, then a similar post for the G&L commercial business at the Water Systems Division here.

EPA OKs HIGHER RATES FOR ALAMO

WASHINGTON, D.C. — The Environmental Protection Agency has registered new, higher rates for Alamo fungicide for applications through pressurized injection equipment. For preventative treatments, six milliliters of Alamo should be used. The new label also recommends a 10-milliliter rate for curative treatments. Alamo is Ciba Turf & Ornamental's tool for control of oak wilt and Dutch elm disease.

GOLF COURSE NEWS

Decision to Pennington; feds pay up

By MARK LESLIE

MADISON, Ga. — A struggle that dragged on for six years has come to a close, with the U.S. Treasury reimbursing Pennington Enterprises, Inc. \$250,000 for losses stemming from a government blunder.

"Vindication was uppermost in my mind. We were not at fault," said the seed company's president, Brooks (Sonny) Pennington. "The real sad part is that we taxpayers paid all those government lawyers for six years and then had to pay \$250,000 because of one man's mistake."

The snafu Pennington referred to involved U.S. Department of Agriculture inspectors allowing 2 million pounds of weed-infected Argentine tall fescue grass seed into the country on Nov. 17, 1988. Unknown to Pennington and six other American companies, the shipment contained a noxious weed, serrated tussock. By the time the USDA demanded the

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Packaging prices continue to rise

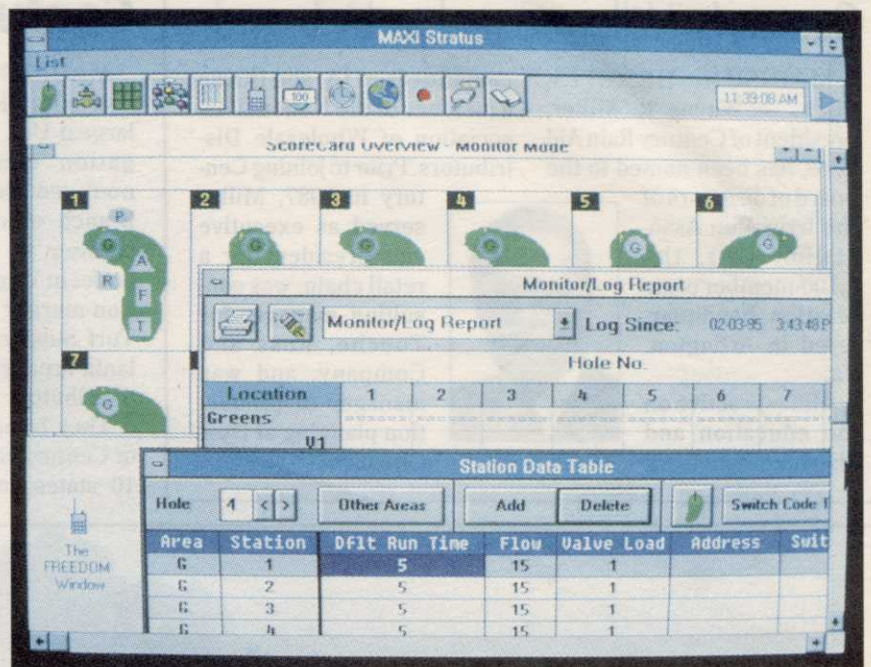
By LYNN GROOMS

If you have purchased multiwall bags or polyethylene film recently, you have noticed some dramatic price increases. And, it's not over yet, according to sources in the packaging business.

Harley Sasse of Greif Bros. in Rosemount, Minn., reports that major paper manufacturers have announced another price increase of \$50/ton. Sasse noted that seed bag prices have already increased 20 percent over last year.

Given the current high demand for paper, including liner-board used to make fiber drums and corrugated box packing, not to mention the near capacity production situation for manufacturers, Sasse

Continued on page 63



NEW PRODUCT OF THE MONTH

Rain Bird's Golf Division has unveiled Maxi for Windows computer-based irrigation control system. Designed to run on Microsoft Windows operating software, Maxi for Windows provides superintendents with a system that is versatile, easy to use and competitively priced. With Maxi for Windows the super can manage all irrigation applications without extensive training, via the Maxi Quick Start initialization and start-up program, which also helps the superintendent build an initial irrigation program. Because the system operates on the Windows program, it can simultaneously manage up to 50 irrigation schedules, generate spreadsheets, compile government-required reports, conduct word-processing functions and plan future irrigation needs. For more information, call Rain Bird at 818-543-3589. For more new products, see page 66.

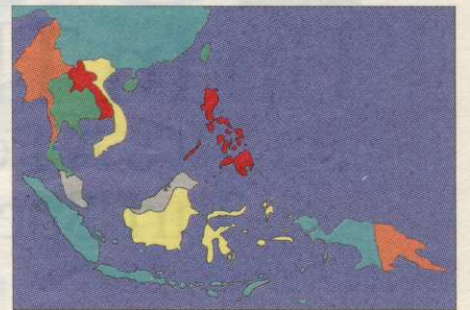
GCSAA bags Asian exhibit sales duties

By HAL PHILLIPS

SINGAPORE — In keeping with the "America First" campaign it initiated some 18 months ago, the Golf Course Superintendents Association of America (GCSAA) has severed the exhibit sales portion of its relationship with Golf Asia, the industry trade show held here annually.

The superintendents association's former partners in Golf Asia — Singapore-based Connex Private Ltd. and Cleveland, Ohio-based International Management Group (IMG) — will continue to manage the trade show. IMG's Chris Roderick reported that 60 to 70 percent of this year's exhibitors have already reserved booth space for Golf Asia '96.

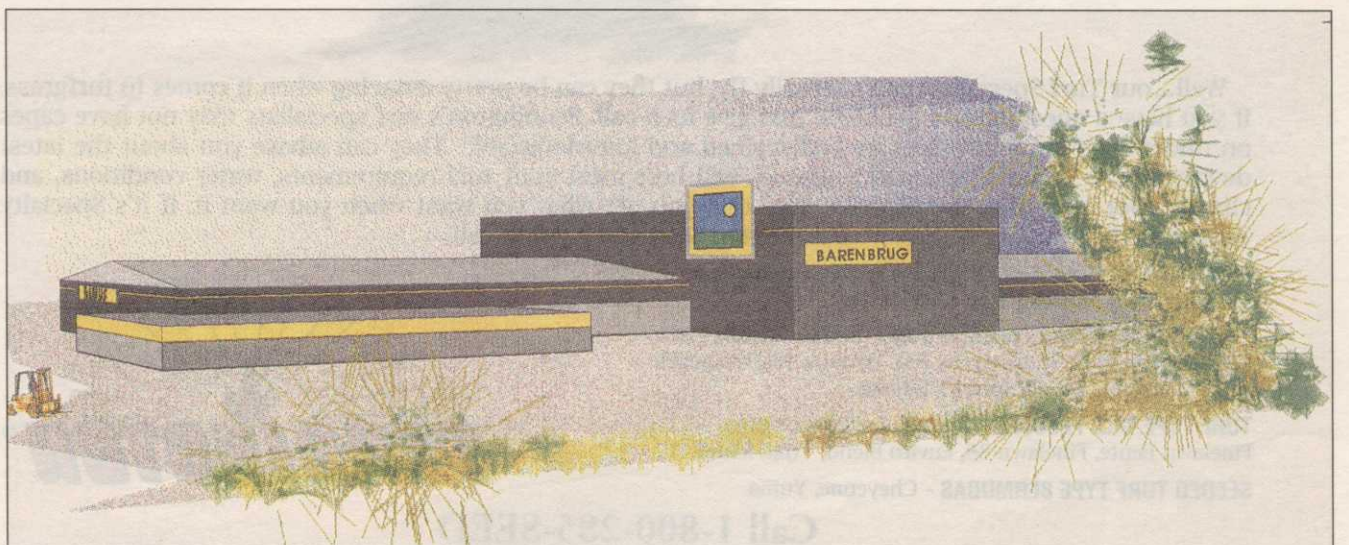
The superintendents association will, however, continue to conduct Golf Asia's education sessions, said GCSAA Chief Executive Officer Steve Mona, who added that his organization broke even financially on Golf Asia '95, held March 23-26. "We won't sell space at all next year,"



Mona explained. "It's really pretty simple: We're going to concentrate on some specific mandates. We want to apply ourselves to those goals. Our involvement on the exhibit side of an international show doesn't meet that mandate."

"There are no hard feelings between us and IMG. We've been discussing this for some time. We will have our own booth there [Golf Asia '96]. We will be present, run the education sessions and man the booth. We're going to concentrate on pro-

Continued on page 68



A NEW HOME FOR BARENBURG USA

TANGENT, Ore. — Barenbrug USA has entered the first stage of construction on its new facility. Located on approximately 12 acres of land just south of the Highway 34 overpass on 99W here, the finished product will eventually accommodate more than 100,000 square feet of production, warehouse, shipping and office space. As you can see, the exterior design will incorporate the worldwide Barenbrug colors and logo. Completion of the entire project is projected in about 18 months. In other Barenbrug news, Michael Thomas has been chosen to fill the position of field representative.

Century's Miller named to IA board

MADISON HEIGHTS, Mich. — Wayne R. Miller, president of Century Rain Aid here, has been named to the board of directors of the Irrigation Association (IA), the 1,100-member organization headquartered in Arlington, Va.

Miller is active on the education and distributor advisory



Warren R. Miller

committees of IA, and is also a member of the National Association of Wholesale Distributors. Prior to joining Century in 1987, Miller served as executive vice president for a retail chain, was consulting manager for Touche, Ross and Company, and was manager of production planning at Dow Chemical.

Century Rain Aid sets up six branch offices

MADISON HEIGHTS, Mich. — Century Rain Aid, among the largest U.S. distributors of irrigation equipment, has announced the addition of six branch office/warehouses, including an Atlantic Irrigation outlet in Virginia and an acquisition-merger with Professional Turf Supply (Pro Turf), an Atlanta area irrigation equipment distributor.

They bring to 36 the number of Century Rain Aid locations in 10 states and the Province of

Ontario, providing irrigation equipment, system design and other services.

Pro Turf's two locations have been rolled into one, at Alpharetta, Ga., joining Century's four existing office/warehouses ringing the Atlanta market at Marietta, Norcross, Lithonia (recently relocated from Conyers) and Fairburn.

All of Pro Turf's highly-experienced and respected employees, including former owner Darrel Scott, have joined the

Century Atlanta team.

Century's Chicago coverage has been strengthened with a new office/warehouse in Elgin, Ill., joining existing warehouses at Wheeling (formerly Palatine), Downers Grove and Mokena.

Another new office/warehouse in Rockford supplies north central Illinois.

A new Century office/warehouse has opened at Midlothian, Va., with the acquisition of a former Atlantic Irrigation branch. It joins existing Century locations at Sterling, Va., and Crofton, Md., in the strategic Washington, D.C. market area.

In the Detroit market, a new office/warehouse in Commerce Township joins existing Century locations in Southfield, Washington, Livonia, Madison Heights and Ann Arbor. All of Century's locations are reached by phone at 1-800-347-4272.

In Canada, a new office/warehouse at Burlington, Ontario (905-639-7980, in the Toronto-Hamilton corridor) joins Century's location at Thornhill just north of Toronto.

DeLaney the new VP of sales at Golf Ventures

LAKELAND, Fla. — Golf Ventures, Inc. has named Don DeLaney to the position of vice president of sales. Prior to joining Golf Ventures, DeLaney was formerly sales manager at Zaun Equipment Co.

Golf Ventures, Inc. is based here and has offices and service centers in Lakeland, Tampa, and Ft. Myers. The company is one of the leading Ransomes-Cushman-Ryan distributors in the world. Golf Ventures also distributes in Florida for Club Car, Daihatsu, Foley, Steiner, Lykes Fertilizer, Lofts Seed, Ringer, Standard and Par Aide Accessories and a number of other products.

DeLaney is a 1973 graduate of Lake City College Golf and Landscape Operations Program. He is a past president of the Florida Golf Course Superintendents Association, and he received its Presidential Award for lifetime service in 1993.

NEW PACKAGING FOR FORE

PHILADELPHIA — Manufacturer Rohm and Haas Co. will introduce a water-soluble pouch for Fore fungicide, a broad spectrum product for turf disease control. This closely follows the company's introduction of Eagle fungicide, another turf product supplied in a water-soluble pouch. Fore fungicide will be supplied in 24-ounce water-soluble pouches. At a rate of four to eight ounces per 1000 square feet, one pouch will treat from 3,000 to 6,000 square feet.

GOLF COURSE NEWS

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Seed growers organize bargaining association

Continued from page 1

dealers see the PRBA initiative as tampering with the principles of supply and demand. Besides, they argue, a few good crops and dealers will be paying 45 cents per pound for seed worth 43 cents or less.

"The growers are producing too much perennial ryegrass — that's the problem here," said Mike Robinson, president of Corvallis-based Seed Research of Oregon. "As a group, what they should be doing is controlling the acreage of production. Take 10 percent and devote it to something else. That will help the price of ryegrass in the long term. Instead — and we see this all the time — if the price of annual ryegrass goes up one year, they all plant annual ryegrass. Then the price goes down."

Bob Richardson, vice president and general manager of Great Western Seed, a wholly owned subsidiary of Lofts, Inc., agreed that oversupply plays a role, but he noted that bans on field burning and certain chemicals have definitely increased grower costs.

"Growers feel their costs are such that they need their fields fully operational every year," said Richardson. "This is heavy, wet soil and it's not like they could plant a wheat crop. If they could put in a summer fallow situation, that would be the best option. But their costs are too high already."

PRBA Executive Director Jim Carnes admits there is more acreage of perennial ryegrass in Oregon than ever before. But he also sees the institution of floor prices as a positive development for both growers and dealers.

"All we're looking for is a factor of stabilization in the marketplace," explained Carnes, the wild card in this real-world economic debate. Carnes was elected executive director of the PRBA at the organization's first annual meeting in

February. He's also the retired founder of Halsey-based International Seed, one of the companies now sitting across the table from the PRBA.

"With a floor price and a market price to be determined later, a grower is basically growing for a dealer. Anytime there's a minimum price, the growers have a right to negotiate what that market price should be. That's according to the Oregon Supreme Court."

While they have been encouraged to support the fledgling organization, many seed companies contend the PRBA is not about bargaining; it's about arbitrary price fixing. Further, seed dealers point out that a great many growers — traditionally an extremely independent lot — are not participating in the PRBA. Robinson said he believes no more than 40 percent of growers have signed on. Carnes said he has 50 percent of the contracted acreage.

In either case, like the growers, seed companies are an extremely independent bunch. Consequently, assessments of the PRBA tend to vary.

"We have to see how flexible the growers can be in low markets," said Rich Underwood, president of International Seed. "If we decide we need to decrease production and the growers aren't listening, we can't control production. We have high and low markets in agriculture, and we'll see how they handle it."

"From a marketing standpoint, if I know what my costs are going to be, [a floor price] makes my job easier. And if I know what everyone else's costs are going to be, it creates a level playing field. I can put on my margin and away we go."

With the new, higher floor price now in place and ryegrass predicted to be scarce this fall, will seed companies simply pass on price increases to their buyers, i.e. superintendents?

"Absolutely," said Carnes. "Seed companies can get their margins up. And there isn't one of them who doesn't need to increase their margins... Golf courses have to be green. The main cost of keeping it green is fertilizers and chemicals, not seed."

Richardson agrees: "The ultimate result is, superintendents will have to start budgeting more money for seed. I bet golf courses are looking at 10 cents extra per pound. And it should kick in this July, August or September."

Robinson disagrees: "If we raise prices, the superintendent will simply use less seed. He's got a budget. I've seen this before. The superintendent will cut back on his usage."

...

Seed companies are taking price hits on both ends of the market, said Richardson. While the growers are taking margin away at one end, golf course buying groups — like those organized by larger management companies and the National Golf Course Owners Association — have negotiated lower seed prices at the other end of the spectrum.

"They're getting squeezed," said Richardson, "and they have to pass the costs along."

Further, the PRBA didn't materialize out of thin air, said Underwood.

"I think the dealers may have brought this situation on themselves by trying to sell cheaper than each other," he said. "And instead of taking those costs out of their own margins, they tried to take it

from the grower."

Robinson said he wishes the Perennial Ryegrass Bargaining Association would pay more attention to the third word in its title.

"They call it a *bargaining* association, but they just tell us what they want," he said. "If the seed companies did that as a group, they'd call it anti-trust... A lot of seed companies are looking for other areas to grow grass seed. They're looking at New Zealand and Canada."

Foreign growing markets are an option, but it's unclear whether the cost of freight would scuttle attempts to save on the production end. The situation is slightly more promising for dealers in Canada where the dollar has fallen along with America's. However, if Canadian currency rebounds, seed companies will find themselves right back where they started — struggling with shrinking margins.

Other bargaining associations have come and gone in the Willamette Valley, but never has one held together this long or effectively. And none has been so well positioned.

"Their timing has been perfect," said Richardson. "We've had excellent fall demand. We've had excellent spring demand. The fall will be very busy."

"Companies have a choice of whether to cooperate with the bargaining association. Most of these growers grow for two or three companies at a minimum... If company A says it will go along, their stuff will get cleaned first. If company B says *no*, they'll probably have to wait their turn."

Packaging prices

Continued from page 61

predicted continued higher prices for the rest of 1995 and into 1996.

Several pulp producers have announced an additional price increase of \$100/ton effective June 1.

As pulp prices continue to rise, they will have a direct effect on prices for some special paper grades, such as the bleached white paper sheets used as the outside printed ply in many seed bags for brand identification and high quality color graphic design. As of March 8, seed companies could expect to pay between 40 cents and 50 cents per bag, depending on such factors as quantities, bag size and construction.

At a recent meeting of the Independent Professional Seedsmen's Association, Paul McDonald of Repap Manitoba reported that while European and North American manufacturers of coated paper increased their capacity 40 percent between 1987 and 1993 (raising output from 14 million tons in 1987 to 21 million tons in 1993), they are now operating at 95-100 percent of their capacity, depending on the grade of paper. McDonald said coated paper prices have risen sharply and are expected to continue growing.

McDonald pointed out that linerboard

is the most important component of the container board market regarding its relationship to Kraft paper because of its "swing machines." Swing machines can make either linerboard or Kraft paper depending on market conditions.

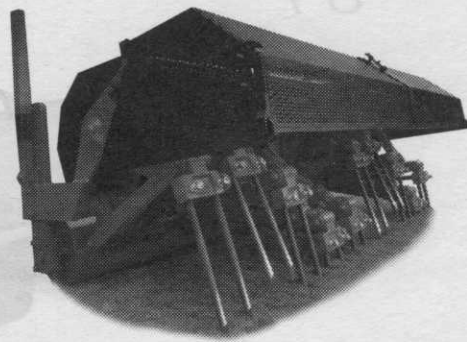
Linerboard production in the United States increased to more than 22 million tons in 1994. McDonald said the box market, which is growing about 5 percent annually and which has low inventories, has produced high operating rates and increasing prices. But, new capacity of more than one million tons is expected to be added this year.

A recent survey by the American Forest and Paper Association indicates that unbleached Kraft paper (the major component of seed bags) capacity will be about 220,000 tons less than previously forecast. McDonald explained this reduction is due to capacity that has shifted to liner-board production.

He pointed out that if shipments of unbleached Kraft paper remain constant this year, the operating rate will increase from 88.6 percent to almost 93 percent. Therefore, the Kraft paper market is expected to remain strong. McDonald suggested this cycle should peak in late 1995 or early 1996.

Strong demand for ethylene, combined with several serious unexpected events at the major petroleum companies, also has driven up prices for polyethylene producers and their ultimate customers (such as seed companies who use polyethylene liners in their seed bags).

Lynn Grooms is editor of Seed World magazine. The above story was reprinted with her permission.



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Flowtronex lines up a pair of German distributors

DALLAS — Flowtronex PSI Ltd., the world's largest manufacturer of irrigation pump stations has partnered with two regional companies to expand in the German and Austrian golf markets. Flowtronex, based here, will utilize the expertise of local German dealers, Pumpen-Hartmann GmbH. & Co. and Modulun GmbH., in this new endeavor.

"The strong emergence of golf in Germany and Austria prompted our interest in the market," said Dave Brockway, president of Flowtronex PSI. "Although we have two installations in Great Britain, we chose not to pursue the European market until we saw the unique

opportunities offered by Germany. We're confident our vast experience and high-quality products, combined with the resources and knowledge of our local distribution team, will make us the pumping system of choice for golf courses throughout the area."

Pumpen-Hartmann GmbH & Co. (051-14-64066) in Hanover, Germany, and Modulun GmbH (086-52-627745) in Bercht-egaden-Strub, will act as distributors and service providers for Flowtronex PSI. Pumpen-Hartmann will oversee sales and service for most of Germany, while Modulun will respond to customers in southeast Germany, including Munich and Austria.

PBI/Gordon Corp. to partner with Farmura on liquid fertilizer deal

KANSAS CITY, Mo. — PBI/Gordon Corp. has signed an agreement with the English firm Farmura, Inc. by which Farmura has licensed PBI/Gordon with the producing Bova-A-Mura liquid organic fertilizer.

Bov-A-Mura is the product of a biotechnical process that converts select dairy manure into a sprayable suspension containing the range of natural nutrients found in bovine manure, but without the odor, solids, salt lev-

els and weed-seed problems often associated with other forms of manures.

The product, previously only available from England, is extensively used in the golf course and sports turf markets for quick sod knit-down, soil conditioning and seed pregermination.

According to Bill Brocker, vice president of marketing for PBI/Gordon, the firm tested several U.S. manure and enzyme products last year after the English supply was cut off due to new restrictions on the import of English dairy by-products. When no match for the benefits provided by the English product was found, PBI/Gordon began negotiating for rights to the manufacturing process in order to build a plant and produce the product itself.

The plant is being built on the site of PBI/Gordon's Crestline, Kan., plant and will utilize manure sources which have been selected from dairies in Oklahoma and Kansas.

In board action taken at the March 8 meeting of PBI-Gordon Corp., Richard E. Martin was appointed president and chief executive officer (CEO). Everett Mealman, who has served as CEO since 1977 and chairman /CEO since 1984, will continue to serve as chairman. In other board action John Coats was newly appointed treasurer.

Schmoyer, White sign on with ISS

TAMPA, Fla. — Ronald Schmoyer has been named chief operating officer of ISS Landscape Management Services, Inc. Bringing more than 25 years of industry experience to the position, Schmoyer will be responsible for the maintenance operations and administrative activities of the entire organization. Schmoyer previously served as vice president of the ISS Southeast Atlantic Division, and is a graduate of Penn State University where he earned his degree in turfgrass management. Schmoyer is also a member of the Golf Course Superintendents Association of America.

In other ISS news, Ralph White has joined the firm as vice president of ISS Golf Services. He will lead the agronomic and administrative activities of ISS' golf course maintenance division. For the past 12 years White has successfully operated his private agronomic consulting business, Turfgrass Management Consultants. He's served as president of the Florida Turfgrass Assoc. and has been an Industry Advisory Board member at Lake City Community College the past 25 years.



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Acquisitions allow Best Sand to expand processing capability

CHARDON, Ohio — Fairmount Minerals continues to broaden its impact in the sand market with the purchase of the processing facilities of Southern Silica in Richmondale, Ohio. The acquisition enhances the sand-processing capabilities of the southern Ohio division of Best Sand Corp., a subsidiary of Fairmount here. The company plans to relocate part of the recently acquired equipment to its Walker Ridge quarry site and operate the Richmondale facility in conjunction with its nearby Deaver, Ohio, plant, purchased last fall from Schrader Sand and Gravel. Ted Johnson, who was

previously based at the company's Technisand subsidiary in Bridgman, Mich., has been named manager of the southern Ohio operation.

According to William E. Conway, chairman and CEO at Fairmount, the company can now better meet the needs of metal alloy, foundry, turf and other customers in southern Ohio and surrounding states by providing a greater volume of high-purity quartz pebbles and silica sand.

Harmony adds fertilizer-grade biosolids to product line

CHESAPEAKE, Va. — Harmony Products recently expanded its product line to include biosolids (mechanically dried sewage sludge), in addition to its poultry manure-based products for the professional turf industry. This announcement follows Harmony's signing of a master license agreement and a marketing agreement with New England Fertilizer Company (NEFCO) of Quincy, Mass.

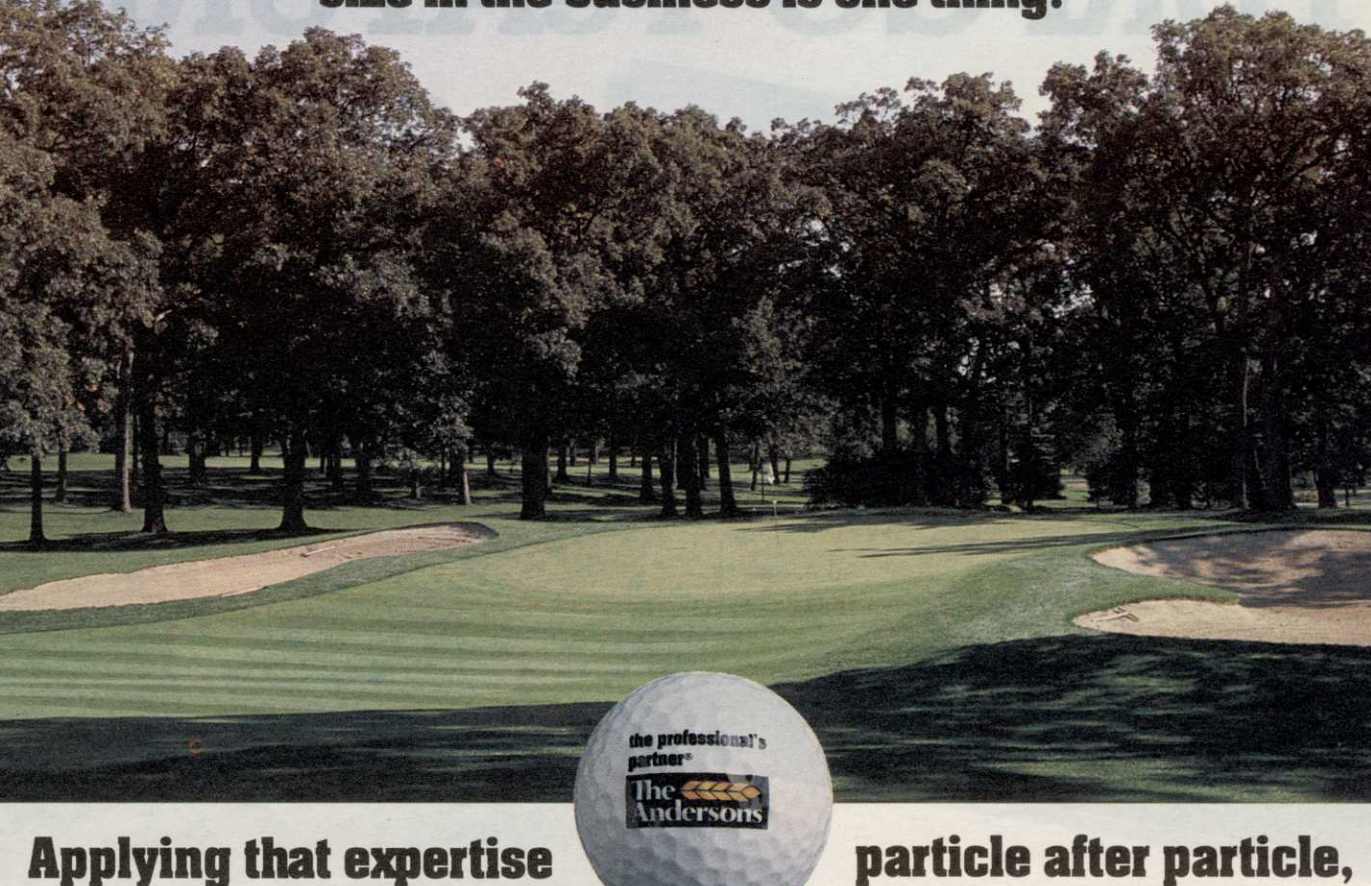
"The processing of sludge and the quality of the resulting products has improved greatly," said Mark Nuzum, president of the Harmony's plant products division.

"With these new biosolid products, there is

no dust, odor or high heavy metal content that was once a concern with this category of products."

Harmony Products, which has manufactured professional organic products here since 1991, will market biosolids from NEFCO's sludge management facility in Quincy. This facility, which is one of the largest such facilities in the world, produces an environmentally safe product termed "fertilizer-grade biosolids." Harmony will market the 4-2-0 biosolids product and will also develop upgraded analysis fertilizers through the use of its patented Bridge product technology.

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Pennington suit

Continued from page 61

companies destroy the seed, the seed had been distributed. Pennington had blended the fescue with other seeds and, around Feb. 1, 1989, shipped 200,000 pounds in three-pound bags as lawn seed to 1,600 K Mart stores nationwide.

Pennington said the seed companies imported the seed in good faith, trusted the government inspection and did not intend to introduce serrated tussock to agriculture, where it is toxic to animals. He pointed out that courts agreed the USDA exceeded its power by demanding the recall. Section 12 of the Federal Noxious Weed Act of 1974 states: "The provisions of this act shall not apply to shipments of seed subject to the Federal Seed Act (FSA)," and serrated tussock was never listed under the FSA.

Pennington sued in district court in Washington, D.C., in 1989, winning the case and also the government's appeal in an Oct. 13, 1993, decision from the U.S. Court of Appeals for the district of Columbia Circuit. It took another 15 months to get the \$250,000 check.

Pennington reported a loss of \$200,000, an amount exceeded by the total losses of the other companies. Losing but deciding not to sue were Olson-Fennell Seeds, Seaboard Seed Co. of Bristol, Ill., Normac, Inc. of Tangent, Ore., Allied Seed Cooperative of Nampa, Idaho, Gateway Seed Co. of St. Louis, and Hanceford Seed Co. of Somerset, Ky.

Despite the lengthy court entanglement and the \$167,000 attorney's fee, Pennington said the battle was worth it. "The law was very clear — even to a layman — as to what authority the government should and should not have and that they clearly overstepped their authority," he said. "I knew I did not stand to win a lot of money. But I felt I had been wronged and needed vindication. And when the government agreed to pay me \$250,000 ... I felt I had been vindicated."

GOLF COURSE NEWS

New resistor designed just for golf cars

The new IPC Edge golf car resistor from IPC Power Resistors International, Inc. is the first resistor of its kind specifically designed for golf car applications.

Overheating and weak connection points can result in electrical opening or shorting of the original O.E.M. round wire resistors. The IPC Edge virtually eliminates these problems typical of standard golf car resistors.

The resistor element of the IPC Edge is constructed of stainless steel ribbon wound on its edge which reduces element temperature. The same ribbon

is used for all of the speed steps, eliminating the coil-to-coil interconnections common to O.E.M. equipment.

The IPC Edge is a plug-in direct replacement resistor. It outlasts conventional O.E.M. resistors and may be the last resistor required for golf car replacement applications. For more information on the IPC Edge golf car resistor, contact Cart Parts in Miami, Fla. at 1-800-327-8790; or call factory direct to IPC in Florence, Ky., at 606-282-2900.

CIRCLE #302

Record temps and humidity with Hobo

Affordable Hobo recorders are a versatile way to record temperature, relative humidity and light intensity on your golf course. Available through Spectrum Technologies, Inc., each battery-powered Hobo is a miniature data recorder.

There are 31 selectable deployment settings from 15 minutes to 1 year. Software-defined intervals document 1,800 measurements throughout the deployment settings you choose.

The sensor is launched and data read out and plotted (Windows only) using the Boxcar software. An electronic serial number automatically recognizes each data recorder. The software lets you export data to an ASCII text file for importing into spreadsheet, charting and database programs. For more information, call Spectrum at 1-800-248-8873 or 815-436-4440, worldwide.

CIRCLE #301

New discharger from Lester handles 36 or 48 volts

A new battery discharger designed for 36-volt banks of batteries and a second model designed for 36- or 48-volt banks of batteries is new from Lester Electrical, a leading supplier of battery chargers for electric golf cars.

Both models run on DC power from the very batteries they are discharging. This eliminates the often difficult problem of locating the batteries to be discharged near an AC outlet.

Discharger Model 17770 discharges 36- or 48-volt battery banks. By sensing voltage at the start of discharge, the discharger determines automatically whether it is connected to a 36- or 48-volt bank of batteries. It proceeds to discharge at the pre-determined rate until the batteries are discharged to 1.75 volts per cell.

For more information, contact Lester at 625 West "A" St., Lincoln, Neb. 68522; fax 402-474-1769.

CIRCLE #303

Nelson unveils long-throw heads

Two longer-throw models have been added to L.R. Nelson Corp.'s line of gear drive sprinkler heads. The Nelson 7000 and 7500 provide effective coverage for golf course applications.

The model 7000 gear drive covers 46 to 64 feet, and model 7500 covers 53 to 74 feet. Each gear drive features a 4.5 inch pop-up height to clear high turf, and a bypass valve that standardizes rotation speed. Model 7500 features a stainless steel piston sleeve (available option on model 7000), making it ideal from applications in sandy terrain. For more information, contact L.R. Nelson Corp., One Sprinkler Lane, Peoria, Ill. 61615, phone: 309-692-2200, fax: 309-692-5847.

CIRCLE #304

Ultrisorb, water recycling from RGF

RGF Environmental Systems, Inc. has introduced the New Ultrisorb Model GC+ an advanced water recycling system for heavy-duty golf course and turf maintenance operations.

This compact skid-mounted unit contains the most advanced technology, known as the Catalytic Oxidation Process, which oxidizes contaminants like pesticides, algae, bacteria and foul odors from decomposed grass cuttings. The Ultrisorb Model GC+ also contains Turbohydrozone, an ozone generation system designed to destroy organics.

For more information contact RGF at 3875 Fiscal Court, West Palm Beach, Fla., 33404; or call 1-800-842-7771.

CIRCLE #305

TURFGO® FeATURE™

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With the development of TURFGO® FeATURE™ by "Ironman" Neal Howell, turf managers have a better way to build the deep green turf they dream of. A single application of FeATURE™ normally results in notable green-up in 12-48 hours.

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CIRCLE #159



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6 — *Golf Range Development Seminar in San Francisco.* Contact Forecast Golf Group at 804-379-5760.

6-8 — *Turf and Ornamental Communicators Association Annual Meeting in Chicago.* Contact 612-894-2414.

24 — *GCSAA Technician Training for Equipment Managers in Lake City, Fla. **

June

12 — *Midwest Regional Turf Foundation Sports Field Workshop in Huntington, Ind.* Contact 317-494-8039.

July

25 — *Midwest Regional Turf Foundation Regional Turf Field Day in West Lafayette, Ind.* Contact 317-494-8039.

26 — *University of Georgia Turfgrass Field Day in Griffin, Ga.* Contact 404-228-7300.

August

6-8 — *Georgia GCSA Summer Conference at Sea Palms Resort on St. Simons Island.* Contact Karen White at 706-769-4076.

16 — *Ohio Turfgrass Foundation Field Day in Columbus, Ohio.* Contact Julie Guenther at 614-261-6750.

September

7-8 — *Southwest Horticultural Trade Show in Phoenix, Ariz.* Call 602-966-1610.

November

4-7 — *Georgia GCSA Annual Meeting at Jekyll Island.* Contact Karen White at 706-769-4076.

7-10 — *Turf and Grounds Exposition in Rochester, N.Y.* Contact 800-873-TURF.

9-10 — *Golf Course Expo in Orlando, Fla.* Contact Golf Course News Conference Group at 207-846-0600.

13-15 — *Women in Golf Summit '95 in Pinehurst, N.C.* Contact 904-254-8800.

14-16 — *Midwest Regional Turf Foundation Turfgrass and Ornamental Seminar in Lafayette, Ind.* Contact 317-494-8039.

December

4-7 — *26th Annual Georgia Turfgrass Conference and Trade Show in Atlanta.* Contact 404-228-7300.

5-8 — *Ohio Turfgrass Foundation Conference and Show in Columbus, Ohio.* Contact 614-261-6750.

* For more information contact the GCSAA Education Office at 913-832-4430.

GCSAA in Asia

Continued from page 61

viding education, which went very well this year."

Three years ago, GCSAA and then-Executive Director John Schilling actually staged its own trade show here in direct competition with Golf Asia. That was the peak of GCSAA's overseas involvement.

Since late 1993, when Schilling abruptly resigned, the domestic membership has been calling for GCSAA to concentrate on U.S. programs. The organization has definitely responded by limiting its role in Golf Asia the last two years and folding its foreign language publications.

"The fact that we're sticking with the education [at Golf Asia] says we're going to concentrate on education when it comes to overseas endeavors," said Mona. "As you can appreciate, our U.S. show is our big deal and we want our folks focused on the task at hand. We have our sights set on 20,000 [for Orlando '96] and 600 for the golf tournament. We want our people to concentrate on it.

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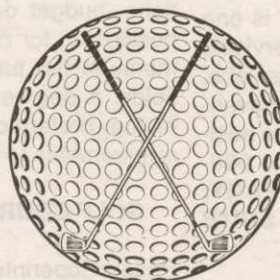
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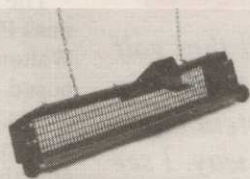
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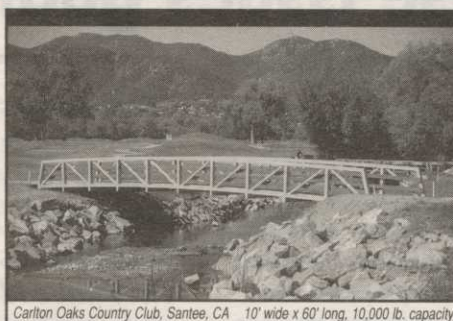
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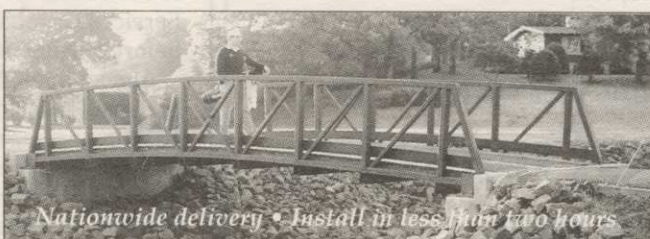
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GCSAA in Asia

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because you are able to do more things. The level of involvement, communication and planning goes up. It's good, but you can't do that without redirecting resources."

Mona said the 1995 GCSAA Show, held in San Francisco, was an unqualified success. He added that corporate-sponsored events — which GCSAA accepted for the first time — were well received.

"We got very good reviews on the corporate involvement in the San Francisco show," he said. "We're taking that as a mandate that we can continue with them."

"If we had received a hue and cry from our members, our attitude would be different. We don't want to offend the sensibilities of our members. But because we got good reviews, I feel comfortable saying we have a clear mandate to continue and look at other opportunities."

State Parks: Public-use issues guard golf's latest frontier

By J. BARRY MOTHES

Proposals to build golf courses in state parks from New Jersey to Tennessee have stirred up considerable debate inside and outside the golf industry.

Not surprisingly, almost all the proposals have generated heated challenges from organized environmental groups. Though all the proposed courses are public-access, they've drawn criticism from local athletic and recreation groups, everyday park users and even, in some cases, golfers. Many argue that courses are a narrow, exclusionary use of scarce, natural public land that should be reserved for picnicking, walking, hiking, bicycling and other uses.

Some state officials and developers, meanwhile, counter that golf courses can be excellent revenue sources for state parks, especially those that are already struggling because of less funding. In some cases, the proposed golf courses are recommended for land that is essentially unused and would take up relatively little of the total acreage of the parks. Using part of a park for a golf course, goes the argument, might not be such a bad thing if revenues and increased traffic from it allow the rest of the park to survive and thrive.

A quick rundown on some high-profile proposals:

- In Tennessee, the state has signed on with Golf Services Group of Houston to build and operate four Jack Nicklaus-designed 18-hole golf courses at four different state park sites for \$20 million. There has been controversy surrounding at least two of the proposed sites and a citizens' environmental group is fighting in court to stop the entire plan. Current Gov. Don Sundquist, who inherited the proposed project when he took office in January, has been asked — even by some legislators who originally favored the idea — to reject the plan.

- In Maryland, a Nicklaus-designed 18-hole golf course and convention center at Rocky Gap State Park are part of a proposed \$34 million resort intended to revitalize the Western Maryland economy.

- In Texas, state officials are looking to expand a 1930s vintage nine-hole course at Bastrop State Park to 18 holes (the state also operates two other 9-hole courses and one 18-hole track in its 120-park system but has no plans to expand those). A request for a matching \$500,000 federal grant for the proposed \$1 million Bastrop project was turned down and the National Parks Service has indicated the

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— James Hardy, president
Golf Services Group

expansion would diminish the historical value of the park. But the state recently asked for the grant request to be reinstated and it is under review.

- In Mississippi, the state is getting ready to build an 18-hole public-access golf course in Percy Quin State Park not far from the Mississippi-Louisiana border. An attempt by a local citizens group who favored keeping the park undeveloped was rejected by a local judge. Timber-cutting is expected to start soon.

- In New Jersey, Gov. Christine Whitman is still mulling a highly-anticipated decision on a proposed 18-hole golf course that would be built on largely unused land inside Liberty State Park, one of the most popular access spots to the Statue of Liberty and Ellis Island. Whitman was supposed to make a decision in January but has moved the deadline forward several times. A decision is expected in the next two months.

Golf course development in state parks is not a new phenomenon. Thirteen states, including Oklahoma, Texas and Alabama, and even Tennessee, have had golf courses inside state parks for decades.

Many of those courses, however, were relatively modest layouts, often with very modest clubhouse facilities — in some cases a snack bar, cash register and bathrooms. The four Texas state park courses, for example, were built during the Works Progress Administration in the 1930s. They offer basic, fast-playing — if nonetheless scenic — golf courses and a small "concession" building where greens fees are handled. These facilities pale in comparison to the acreage, style and budget of most of this latest round of proposals, which are also coming at a time of heightened awareness and sensitivity to land use.

The most ambitious and increasingly volatile situation is in Tennessee, where former Gov. Ned McWhirter signed on to the \$20 million deal with the Golf Services Group in December 1994, just before leaving office.

Almost immediately, residents near the small lakeside Panther Creek State Park in northeast Tennessee, one of the original four sites, strongly opposed the idea. Golf Services has since dropped Panther Creek and Natchez Trace from its original list of four, saying the steep, rocky land was not well-suited under the budget limit. Two new sites under consideration are Tims Ford State Park near Lynchburg and Harrison Bay State Park on Lake Chickamauga outside Chattanooga.

The Tennessee Citizens for Wilderness Planning (TCWP) and the Izaak Walton League are fighting the proposed project on legal and political fronts. A lawsuit filed by the TCWP and the Appalachian Mountain Bike Club to stop the project was recently thrown out of court but will be appealed, according to the TCWP. Further, several state legislators are now asking current Gov. Sundquist to reject the project.

"We simply don't believe it's an appropriate use of our state parks," said Joan Burns of the TCWP, "and many of our members are golfers."

Not all the opposition to golf course development in state parks is solely on environmental grounds. More and more legislators like those in Tennessee where golf courses are proposed have raised questions about how economically successful the golf courses will be. In Tennessee, the state's plan to pay back the \$20 million in bonds depends on revenues at the proposed courses.

Tennessee State Rep. David Coffey, a Republican from Oak Ridge, originally voted to approve the project but now calls it "irrational and an affront to public opinion" in a time of budget-cutting. Coffey is one of a growing number of legislators who've said the state should invoke a cancellation clause in the contract with the golf course developer. State finance officials have said, however, the contract can't be canceled. Another legislator is also reportedly drafting a bill to overturn the bill that created the golf course project in the first place.

Many of these proposed new golf courses, with high-profile and high-priced course designers like Nicklaus, will also demand green fees that could be as much as \$10 to \$20 higher than the average rates at your average state park course. A current bill in the Tennessee legislature would also prevent seniors from playing at the four proposed Nicklaus courses for free on Mondays, as they can at the eight current courses run in state parks.

Despite the clamor around Tennessee, Golf Services President James Hardy, a former PGA Tour player, remained confident that, at least in Tennessee, new golf courses can be a successful, attractive part of the state's park system.

"Some states have felt that golf is nothing they want to have in their state park system but others don't feel that way," said Hardy. "I see Tennessee as a model in a way. They have identified the kind of state park they want in each of their state parks. They have rustic state parks for hiking, nature, birdwatching. They are non-development parks. They have others that are mixed-use areas and then they have parks that are more developed that have things like golf courses, marinas, launches, soccer fields, pools, baseball parks."

"I think that's the best way to do it," Hardy continued. "You have the chance to appeal to everyone. A lot of people see golf as an intrusion and they want to go out and bird-watch and hike and I think that's wonderful. But other people think they should have the chance to go to a state park and go to a marina or play golf."

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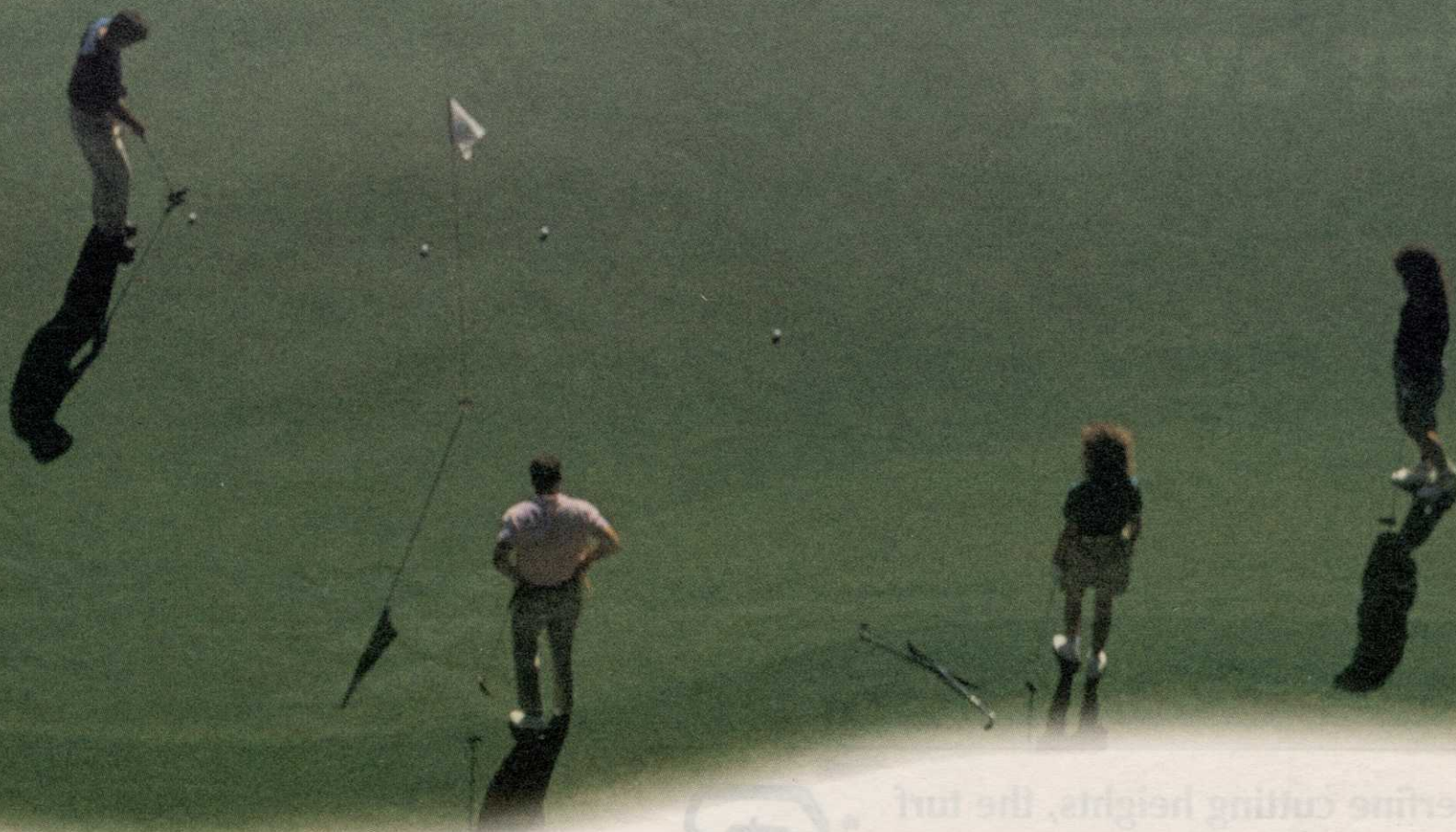
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