Debris Management
Superintendent John Farley has new and educational ways to work composting into your routine.

Spotlight on Asia: Vietnam
Vietnam has the best chance among its Asian neighbors to develop an industry that isn't overgrown.

NICKELS GETS A JUMP START ON KOREA
Doug Nickels (right), of Nickels Golf Group, and shaper Cliff Hamilton on the fairway at Club 200. See story page 33.

COURSE MAINTENANCE
Scientists work on 'staygreen' gene
To lease or not to lease: a checklist
Ortiz-Patino to get Old Tom Morris Award

COURSE DEVELOPMENT
Sand layer solves Northwest problems
Reaching Out in Nebraska, Indiana

COURSE MANAGEMENT
EAGL soars in California
Hyatt hires new golf director
Nicklaus, ClubCorp team up

SUPPLIER BUSINESS
SRO, O.B. ink seed agreement
EPA to reassess pesticide tolerances
U.S. Microbics readies new 'bug' facility

GOTTA HIT IT FAR AT CINNABAR
SAN JOSE, Calif. — Cinnabar Hills Golf Club's #8 is a dramatic 222-yard par 3 perched atop the Canyon course. See story page 30.

GLOBAL GOLF: NEPAL'S 'NEW MONUMENT'
KATHMANDU, Nepal — Proof that golf is truly global can be found here in the King of Nepal's 800-acre, walled hunting park which also contains the Royal Summer Palace. A team of women plant a green blade by blade on the King's new course (above). The organic matter consists of composted rice husks and fresh, local elephant manure, the latter being collected daily from the jungle by a team of 60 laborers.

Texas seeks shelter from the heat
By MARK LESLIE
DALLAS — A typical day in August: The heat climbs to 101 degrees at noon, reaches 104 around 4 p.m., drops back to 101 at 7 p.m., and slowly descends to 90 by midnight. The low for the day is 82, recorded at 3 a.m. Water levels on Falcon and Amistad lakes along the Rio Grande are 50 feet below normal; boat ramps look like they are sitting on a cliff.

With four to five hours above 100 degrees nearly every day from July deep into August, and with an inch or so of rain in more than two months, Texas cooked on a high simmer — to the point that lives were in danger when precautions weren't taken. That's the human side.

Continued on page 22

N.C. State/Fazio next with research & teaching course
By MARK LESLIE
RALEIGH, N.C. — North Carolina State University is on the verge of building an 18-hole golf course on its Centennial Campus here that will serve as a research, teaching and extension facility. The Tom Fazio-designed course will be part of a hotel conference center complex that will be developed and operated by private enterprises, according to Dr. Charles Peacock of the Department of Crop Sciences and NC State's point man on the project. The private companies

Continued on page 24

Creative management ideas abound at PGF
By PETER BLAIS
The "Build It And They Will Come" philosophy may work in the Iowa ballfield business. But in golf, it takes efficient management and creative marketing to get golfers past the bag drop area as the speakers at this year's Management/Marketing Track of the Public Golf Forum can attest.

Six management/marketing sessions are on the line-up card at this year's Golf Course News-sponsored business conference and expo for superintendents, owners, managers and developers of public-access golf facilities on October 26-27 at Rancho Las Palmas Marriott Resort in Palm Springs, Calif. The Management, Development

Continued on page 46
“Penn A-4 enhances the game of golf. It is my personal feeling that Penn A-4 is one of a number of significant contributions to the game of golf by Dr. Joe Duich.” “Awesome.”

Cutler Robinson, CGCS, Supt. 
Bayville GC, Virginia Beach, VA

“Simply stated, everyone who has played Bayville comments the greens are ‘the best they have ever putted.’ This grass allows our members to experience ‘tour’ quality putting and green speed without jeopardizing fairness and enjoyment. Properly managed, Penn A-4 is, in my opinion, the best grass to date and has set a new standard for excellence.”

Dean Hurst, PGA Professional 
Bayville GC, Virginia Beach, VA

“Even though summer temperatures can reach 115-120°, we’ve cut our Penn A-4 at 7/64” for more than a year with no problems.”

Doug Anderson, CGCS, Supt. 
The Vintage Club, Palm Desert, CA

“For me, the lower the cutting height, the better the management (Penn G-6).”

Pete Gerdon, Supt. 
Grandfather Golf and CC, Linville, NC

“Because of the short season at our 7,500 ft. elevation, we sodded our rebuilt greens with 42” wide rolls of Penn A-4 from West Coast Turf in California. 
There, we found a source for rootzone sand that closely matched our own, and the long, wide rolls minimized seams. We re-opened 5 weeks after sodding, and dense, fibrous roots reached 10-12” in a matter of months.”

Kevin Ross, CGCS, Supt. 
CC of the Rockies, Edwards, CO

“Quality of the Penn A-4 putting surfaces at The Estancia Club is beyond comparison. Ball roll and the pace of the greens are excellent. I would not hesitate using Penn A-4 again.”

Carl Rygg, CGCS, Supt. 
The Estancia Club, Scottsdale, AZ

“Penn A-4 Greens do not cost more. While they do need more topdressing and aerification, they require significantly less water, fertilizer, and pesticides.”

Ted Hunker, Supt. 
Tartan Fields GC, Dublin, OH

“We’ve overseeded Penn G-6 into our Poa/bentgrass greens after aerifying a total of five times. We fill the holes within 1/4 to 1/8” with sand, seed with one lb. per 1,000 sq. ft., then topdress. When the Poa stresses under heat pressure, Penn G-6 will re-populate that area.”

John Lof, Supt. 
Michelbook CC, McMinnville, OR

“Penn A-4 greens do not mean more work, more trouble, and do not cost more money to maintain. In fact, just the opposite may be true. We have found that they require fewer cultural practices such as vertical mowing and brushing. In two years of managing Penn A-4, we have not observed any brown patch or dollar spot, and greens require limited amounts of fertilizer.”

Kurt Thuemmel, CGCS, Supt. 
Walnut Hills CC, East Lansing, MI

“I overseed our 18 old greens with 1/4 lb. per 1,000 sq. ft. of Penn A-4 each time we aerify. Now, with single cut and roll, our green speeds are consistently fast at 12 to 12-1/2’’. Where ball marks tend to tear older bents, they just make dents in Penn A-4.”

Pat Franklin, Supt. 
Plum Creek CC, Fishers, IN

“We resodded high stress areas in our PennLinks fairways with Seaside II, and are very pleased with its performance. I selected Seaside II with improved dollar spot disease resistance and salt tolerance to address two major turf challenges; the coastal influence and potential sodium buildup from irrigation. We find Seaside II a strong ally to our PennLinks fairways, and in the future, will slit seed with Seaside II where needed to enhance turf quality.”

David Major, CGCS, Supt. 
Del Mar CC, Rancho Santa Fe, CA

“We have 36 putting greens and 4 practice greens that have been converted from Toronto C-15 to Penn A-4 Creeping bentgrass. When the greens were placed in play the spring after conversion, comments from our golfing membership were very positive even though turf maturity had not been reached. Putting trueness and turf appearance were among the positive remarks most often mentioned. Now that the putting surfaces have additional development, comments are the greens are superior to anything they’ve played.”

Bill Byers, CGCS, Supt. 
Des Moines G & CC, West Des Moines, IA

“Comments from golfers have been extremely positive (Penn G-2).”

Jeff Hill, CGCS, Supt. 
Pinehurst Resort and CC, No. 8, Pinehurst, NC

Penn A-1 
Penn A-2 
Penn A-4 
Penn G-1 
Penn G-2 
Penn G-6 
Seaside II 
NuPenn Blend
AURORA, Colo. — U.S. Home Corp. has broken ground at Heritage at Eagle Bend. U.S. Home plans to build an 18-hole course designed by Arthur Hills and Associates along with more than 2,400 residential units and a 30,000-square-foot, lodge-style clubhouse and community center on the 1,000-acre property located south of Denver.

CHESAPEAKE, Va. — The 45-hole, Cahoon Plantation golf complex is on schedule to open its new 18-hole, par-3 course in October and the 27-hole championship course by spring 1999. Ault, Clark & Associates designed the golf complex and SAJO Construction built it for owner Wallace Cahoon. The course features bentgrass tees, greens and fairways.

KINGSTON, Mass. — Construction is underway on what will reportedly be the first course in Massachusetts to irrigate with effluent. Indian Pond Country Club will be the primary site for disposing of treated wastewater from the town's planned treatment facility. Damian Pascuzzo designed the 18-hole, semi-private layout, which is scheduled to open sometime in the year 2000. Fred Tonsberg is the developer.

University of Arkansas upgrades turf management program

FAYETTEVILLE, Ark. — The University of Arkansas is looking to expand its program for training turf professionals, according to The Arkansas Democrat-Gazette. Mike Richardson, chairman of University of Arkansas' turf sciences program, said the university has added a full major in turfgrass management.

Lying in the temperate zone, Arkansas can be a challenging place to grow grass. It's this balancing act between warm- and cool-season grasses that makes Arkansas a good place to teach students how to care for turf, Richardson said.

Students will be required to undertake internships at the area's golf courses. The program officially starts this fall. The university surveyed turf-industry employers to find out what skills would be most important. As a result, three areas will be emphasized: basic agronomy, agriculture machinery and business management.

The Most Advanced Controls in the Industry

Just Happen to be on the Finest Pumping System

Watertronics Pumping Systems, with Watervision® Controls

Pumping System:

- All units custom-built to your watering schedule requirements, at costs comparable to others' off-the-shelf models.
- The only manufacturer to provide full dynamic testing of every unit at the factory, with certification of performance.
- Exclusive Mechanical Seals on vertical turbine pumps are maintenance-free, eliminating bothersome packing adjustments and spraying water.
- The most durable, best looking finish in the industry — baked epoxy undercoat plus baked UV resistant polyurethane top coat.
- One-piece, structurally engineered, seamless deck eliminates rust-prone welds, sharp edges and debris-collecting surface pockets.

Watervision® UL Listed Controls:

- Provides remote access, Windows based, fully interactive control. Monitor your pumping system with the easy-to-use computer interface from your office or home.
- Intuitive, simple, point and press, touch-sensitive computer control panel with built-in maintenance and troubleshooting screens.
- "Ride Through" self diagnostics analyze system faults, and automatically keeps your station on line. No need to lose sleep during critical night watering cycles.
- Exclusive, patented, Electronic Butterfly Valves provide surge-free back-up pressure regulation in the event of VFD faults and smooth pump start-stop transitions that other stations lack.
- Breathe new life into your existing pump station with Watertronics touchscreen controls and electronic regulating valves.

Learn how over 30 years of irrigation pumping experience can make your life easier, and your watering system more dependable and efficient: Call Watertronics today to get the whole story about superior Watervision controls, retrofit conversions, and custom pumping systems:

1-800-356-6686

CIRCLE #114
Evergreen seeks involvement in California project

CAMARILLO, Calif. — Evergreen Alliance Golf Limited is seeking to replace another investor who decided to pull out of a project to develop an 18-hole course and 16,000-seat amphitheater near the former Camarillo State Hospital.

Evergreen expected to receive approval from the Ventura County Board of Supervisors this summer. Evergreen would replace CEC Properties Inc., which has been with the project since the start. Evergreen, based in Dallas, manages and develops public and private courses across the country.

The county is also asking that the agreement between the developer and county be extended six months with the possibility another six. The extension is needed because of a lawsuit and delays in getting permits. Superior Court Judge Barbara Lane will decide soon whether to allow construction of the course.

The Environmental Defense Center in Ventura and the California Native Plant Society contended in court that Ventura County’s development plan violates state law and local planning policies. They hope to overturn approval of the project, launched by the county nearly three years ago to generate money for its financially strapped parks system. The proposed 320-acre park would generate up to $750,000 yearly for the county to help support the parks system.

Charles Howard has designed a course for the site. The county would ideally like to start construction later this year and hopefully open the course in late 1999 or early 2000.

Jacobsen may design northern California track

MENDOCINO, Calif. — Mendocino County supervisors and the Fort Bragg City Council have agreed to put up a $250,000 guarantee apiece toward construction of a $7.5 million course near Noyo Harbor.

If approved, the 18-hole facility would be developed and owned by the Mendocino Coast Recreational and Park District. The park district would sell bonds to finance construction costs on the 330-acre site.

Current property owner Georgia-Pacific Corp. has offered to sell the land to the district for $475,000. The district needs to obtain additional permits, meaning the start of construction is still at least 12 months off.

Jacobsen Hardy Golf Design has been selected as course architect. A builder and management firm will be selected at a later date.

An economic feasibility study by Economic Research Associates indicated the course should host 52,000 rounds annually. Jim Hurst has directed the Regional Park and Golf Course Steering Committee for the past few years.

Fazio to design Virginia SGA headquarters

POWHATAN, Va. — Eastern Powhatan County is slated to be the new home of the Virginia State Golf Association (VSGA) golf complex.

The project is estimated to cost $12.8 million and will have 18 holes of championship golf, a nine-hole short course and practice facilities.

Tom Fazio will design the golf facility. The center will feature a 12,000-square-foot clubhouse, education center, museum and library, turfgrass research center, instructional learning center and dormitory.

Groundbreaking will take place next spring, with completion scheduled by the spring of 2001.

No one can accuse John Deere of standing still. Since 1995, we’ve added ten quality machines to our line. Another strong statement about commitment to your business.

New this year are the RZI 700 and the walk-behind Aercore® 800.

Effective and environmentally friendly, the RZI 700 lets you inject liquids directly to the root zone, eliminating drift and minimizing surface toxicity. The RZI 700 delivers treatments up to six inches through 16 single- or multi-orifice nozzles. The 5,000-psi system ensures injections penetrate even hard-packed soil.

The Aercore 800 delivers the...
Washington state course layout to make way for new industry

REDMOND, Ore. — One of Central Oregon’s golf courses probably has a few more years left before moving on to another use.

“My guess is that in five to six years (Juniper Golf Club) will be buildings and industrial property for the (Redmond) airport,” Bruce Wattenburger, general manager and head professional at the club, told The Bulletin. If that happens, a new course is planned near the Deschutes County Fairgrounds. The change in location is forced by an expected large increase in rent in 2006, when Juniper’s lease expires.

The course is owned by the city of Redmond. The club makes a token rent payment of $1 per year. However, the federal government requires that lease payments reflect market value, which would push the lease to $100,000. If the property were rezoned for industrial use, the market value could be $1 million.

So the city decided to change locations of the golf course to maintain a recreational opportunity. The new $4 million course, if all goes according to plan, will be ready for play in 2002, Wattenburger said.

Juniper opened in 1952 with nine holes, with the second nine added in 1987.

S.C. developers need go-ahead to remove trees

CHARLESTON, S.C. — Kiawah Island’s developers are seeking permission to remove 88 trees as part of a planned 400-acre private golf course development on the Andell property of Seabrook Island.

The trees, mostly oak and sweet gum, would be removed as part of a golf club and residential development on farmland and a forest off Kiawah Island Parkway.

The developers are Kiawah Resort Associates (KRA) and Virginia Investment Trust. The golf course would be designed by Tom Watson.

If the developers get the approvals, construction could begin this fall, with the course ready for play by fall 1999 and a grand opening in spring 2000.

Golden Bear to design Mo. links

LAKE OF THE OZARKS, Mo. — Jack Nicklaus will design a new course at the Lodge of Four Seasons here. The course will be called the Glendora Course. The resort has spent over $1 million to upgrade the two courses and facilities in the past year.

S. C. developers need go-ahead to remove trees

CHARLESTON, S.C. — Kiawah Island’s developers are seeking permission to remove 88 trees as part of a planned 400-acre private golf course development on the Andell property of Seabrook Island.

The trees, mostly oak and sweet gum, would be removed as part of a golf club and residential development on farmland and a forest off Kiawah Island Parkway.

The developers are Kiawah Resort Associates (KRA) and Virginia Investment Trust. The golf course would be designed by Tom Watson.

If the developers get the approvals, construction could begin this fall, with the course ready for play by fall 1999 and a grand opening in spring 2000.

Golden Bear to design Mo. links

LAKE OF THE OZARKS, Mo. — Jack Nicklaus will design a new course at the Lodge of Four Seasons here.

The course will be called The Golf Club at Porto Cima and is scheduled to open in the spring of 2000. Four Seasons already has two courses at Seasons Ridge Golf Club and the Robert Trent Jones Sr. Course.

The resort has spent over $1 million to upgrade the two courses and facilities in the past year.
Arsenic scare won’t delay Fla. base redevelopment

ORLANDO, Fla. — Arsenic contamination along the golf course at the closing Orlando Naval Training Center should not delay efforts to rebuild the base into a small city, according to The Orlando Sentinel.

Consultants said they found the material only in the top 6 inches of soil, all of it on the golf course. The toxin had not leached into ground water. "That’s good news," Shane Benner, Orlando’s environmental supervisor, told The Sentinel.

There had been fears the arsenic might have seeped deep into the earth, and that could have pushed back redevelopment plans. But by remaining close to the surface, the pollutant could be scraped off and hauled to a landfill, where it could be buried under tons of garbage.

The estimated cleanup cost is as high as $3 million. The Department of Defense, which is selling the base to the city, has promised to pay for the work. Arsenic used to be found in some pesticides until the chemical was banned 20 years ago.

Preliminary checks of the 100-acre, 18-hole course found levels 25 times higher than acceptable by Florida law. The course, on the east side of the base, will become a housing subdivision after the turn of the century.

Orlando is buying the Navy base for about $4.6 million. Once the city takes control, it intends to sell the property to Orlando Partners for $5.8 million. Orlando Partners proposes transforming the site into apartments, town houses and condominiums, 1,300 apartments, 1.5 million square feet of offices, 350,000 square feet of shops and 215 acres of parks.

Nashville eyes First Tee facility

NASHVILLE, Tenn. — Nashville’s Metropolitan Parks and Recreation and the Tennessee Golf Foundation’s Vinny Pro-Celebrity Invitational hope to build a First Tee golf course in Nashville.

The Riverview Course, a nine-hole short course at Shelby Park in East Nashville, will be extensively renovated as a par-three First Tee course. A new clubhouse will also be built there to serve as home for instructional, educational and vocational junior golf programs.

The First Tee plans to have 100 junior courses under development nationwide by the end of the year 2000.

First Tee will provide seed capital and fund-raising support. The city of Nashville will continue to own the course and Metro Parks and Recreation will operate and maintain it. The Vinny, as part of the Tennessee Golf Foundation, will be responsible for fund-raising efforts to renovate the course as well as for funding the costs associated with programs and staffing for the facility.

Architect Bob Cupp will design the course. Earl Swensson and Associates will donate the clubhouse architectural design. Cupp will use a to-scale, 70-plus year-old nine-hole design by architect Donald Ross originally intended for Shelby Park. The design was lost for many years and rediscovered only recently.

ISS takes over Florida links

TAMPA, Fla.—ISS Golf Services has won the contract to provide complete golf maintenance services at Lake Diamond Golf Club. Located in Ocala, Lake Diamond is a new residential development and will offer the soon-to-be-built 18-hole course as an enticement for new residents. ISS has been contracted by Atlantis Ventures Investments, Ltd., to grow in the course, and then provide ongoing maintenance to the new facility. The grow-in will be supervised by Wayne Darlington of ISS.
To be on top, you've got to have a complete game.

United Horticultural Supply is uniquely positioned with all major suppliers, ensuring you top-notch selection in addition to our technical expertise.

(800) 847-6417
www.uhsonline.com
PGF: The space between

A music professor once told me that it's not so much the notes that make a particular piece of music interesting, but the space between those notes. I think that this might be a reason why you should attend Public Golf Forum, keep that in mind.

I can name two excellent reasons why you need to be there — keynotes Greg Norman and Dr. Michael Hurdzan. Those two are obviously at the top of your list. Add our three tracks of conference sessions covering Management/Marketing (see cover story), Development and Maintenance, as well as our First Tee General Session moderated by Executive Director Todd Leiwke, and I can easily say that this year’s PGF line up is the best we’ve ever had. Now, let your eyes gaze over page 12 and start dialing.

But outside of the structured events and sessions is another element that ends up, from what our event survey tells us, as being absolutely priceless — the time between the sessions.

For the past three years comments about the networking opportunities have been just as "raving" as the comments on the conference content. Lunch time at PGF, I was told by a golf course architect, "is one of the best deal-making opportunities of the year."

The PGF attendee is generally hungry for knowledge. Not only are they owners, operators and superintendents of existing public golf facilities who want to boost their business, but I'm surprised at how many attendees are making their first leap into the business. These "first timers" are looking for answers, and they're not afraid to ask questions, as many of last year's speakers can attest.

If you're shy, get over it. Following a speaker into the hallway for comments and questions after a session is fairly commonplace and highly encouraged by GCN.

And if you're on the fence, let me ask you something. What is the cost of not attending? What is the cost of that one new idea you didn't implement at your course? Now take that list of reasons, ball it up and toss it. You're going.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

Living labs could shake foundation.

Heads up, Rachel Carsonites of the world. The list of "living laboratories" is about to get longer and, with it, the ability of American universities to produce scientific proof of the effects of golf course maintenance practices on wildlife and ground and surface water.

You want to show that golf courses are a blight on the earth? Then the "living labs" could be your key. But be warned: They could prove the opposite. And if they do, be prepared to find another adversary, another "beehive of big business" to stop in the planning board meetings, city councils and courts of the land.

North Carolina State University is the latest to announce it will build a golf course to serve as a laboratory as well as playing field (see page 1 story). NC State will join Golf Course News readers have already witnessed long-term studies at Schuyler Meadows.

At NC State, as at the other schools, people have been very supportive of the fact that this is going to be a teaching and research tool as much as it is a recreational facility," said Charles Peacock.

NC State teaching staff and students will use the new Tom Fazio-designed course to study "everything you can think of," Peacock said, later adding: "We want a model for other people to follow."

Eight to 10 years ago, people in the golf industry declared that long-term studies of this nature were sorely needed. Yet there existed no operating golf course where such research could be done. Today, that lack has been remedied. Stay tuned for the results. They could shake the foundation of the Sierra Club, Earth First! and others of that nature.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

There are only two things that make a particular piece of music interesting, according to a music professor once told me. The first, of course, is the music itself. But the second is the space between the notes. And that's what we're offering YOU at Public Golf Forum — the space between the sessions.

The PGF attendee is generally hungry for knowledge. Not only are they owners, operators and superintendents of existing public golf facilities who want to boost their business, but I'm surprised at how many attendees are making their first leap into the business. These "first timers" are looking for answers, and they're not afraid to ask questions, as many of last year's speakers can attest.

If you're shy, get over it. Following a speaker into the hallway for comments and questions after a session is fairly commonplace and highly encouraged by GCN.

And if you're on the fence, let me ask you something. What is the cost of not attending? What is the cost of that one new idea you didn't implement at your course? Now take that list of reasons, ball it up and toss it. You're going.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.

We've been extremely fortunate over the past year to have Andrew Overbeck reporting in from his travels through Asia during his Watson Fellowship. Thanks to Andy, Golf Course News has had the most detailed insight into the state of golf in Asia during the economic meltdown. Even though Andy is back on U.S. soil, he will be following up on his travels and checking on the progress of all the new projects, as well as suspended projects, that he's mentioned in his pieces. We want to thank Andy for the great work and assure our readers that you haven't read the last of him.
NEW TERRA • FERTILIZERS WITH GOLDCOTE™

As sure as the sun will rise
Predictable, Controlled Release

Predictability — that's exactly what you want and need from a controlled-release fertilizer. And that's exactly what Terra's GoldCote™ polymer technology delivers.

Terra's GoldCote nutrients are released based on soil temperature. As turf root activity and nutrient requirements increase with soil temperature — the release of nutrients from Terra's new fertilizers with GoldCote also increases. Your turf has what it needs — when it needs it.

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

Here's how GoldCote works.

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

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

GoldCote Release Rates

<table>
<thead>
<tr>
<th>% Released</th>
<th>Days</th>
<th>Soil Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>20</td>
<td>59°F</td>
</tr>
<tr>
<td>20%</td>
<td>40</td>
<td>70°F</td>
</tr>
<tr>
<td>40%</td>
<td>60</td>
<td>90°F</td>
</tr>
<tr>
<td>60%</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>120</td>
<td></td>
</tr>
</tbody>
</table>

GoldCote Release Rates

% Released/Days/Soil Temperature
Consistent, Superior Nutrition

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

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

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

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

Fewer Applications

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

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

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

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

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

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

Terra Industries Inc.
P.O. Box 6000
Sioux City, Iowa 51102-6000
1-800-288-7353
www.terraindustries.com

Working with you.
Vietnam: Golf market experiencing growing pains

By ANDREW OVERBECK

HANOI, Vietnam — In the last decade, while the rest of Asia has boomed and subsequently collapsed, Vietnam has remained a difficult environment for investors and the economy has maintained a slow pace.

While this has not deterred golf projects, it has significantly limited their scope, size and number. This may not be a bad thing. Vietnam, perhaps, has the best chance among its Asian neighbors to develop a golf industry that is not overgrown, over valued or overdone. How-ever, there are several significant obstacles that must be overcome in order for this to take place.

The challenges that the golf industry faces are threefold. The first is the limited size of the intended market. For the moment, golf clubs are relying on expatriates for the bulk of their membership sales, which have not provided a stable source of income. As the Asian economies have collapsed, many expatriates are now returning home and selling their memberships at below market cost — making it nearly impossible for the golf clubs to sell memberships at full price.

Further, there are very few locals who are rich enough and educated enough about the game of golf to be comfortable purchasing memberships. In order to stimulate the local market, golf must be more accessible and affordable.

Secondly, the policies of the Vietnamese government have not been friendly to golf course developers. Clubs are currently taxed 20 percent on their turnover, which is decidedly debilitating to their finances. Until lately, the customs department has been equally unfair in their assessment of specialty products that must be imported for use on the golf course.

The end effect of these policies has made building and running a golf club more expensive and time consuming than anywhere else in Asia, thus impacting the quality of services and products.

Finally, the investors are equally to blame for the slow growth of the golf course industry in Vietnam. Many have not come close to investing the amount of money that was promised in their Ministry of Planning and Investment (MPI) licensing agreements.

Incompetent management of some projects has led to poor quality golf courses and facilities. Some investors have cut corners on design, and construction budgets and as a result have built inade-quate facilities. Others have clearly bitten off more than they could chew (or afford) and have failed to raise the general capital needed to complete their projects.

In addition, poor communication between the investors and the government has contributed to the expense of operating a golf course in Vietnam.

At the moment, the golf industry in Vietnam is going through a much needed restructuring period — both the government and the industry are reevaluating their projects, policies and long-term goals.

The following is an assessment of the golf projects and a look at the direction of the industry in Vietnam.

Golf courses in Vietnam can be divided into three groups: the four weekend, members/pay-for-play clubs that are close to Ho Chi Minh (HCM) City, the two resort projects in the South, and the course outside of Hanoi.

The competition between the four HCM City clubs is fierce, especially due to the rather limited amount of expatriates for potential members. The Vietnam Golf and Country Club in Thu Duc is the most established club in Vietnam and has the best position in HCM City.

They have the most extensive golf project in the country with two 18-hole layouts, one designed by Lee Trevino that opened in late 1997, and another designed by Chen King Shih that opened in 1994. Since the Taiwanese owner has already committed the bulk of the promised $70 million of capital to the project, the club is continuing to expand and is planning to open golfing villas and is scheduled to soon hold the ground breaking for the new clubhouse and country club.

Their golf courses are of tournament quality and have held two professional tournaments — one of which was the Asian PGA’s Vietnam Open last year. The club is managed by CCA International, although the staff is currently limited to Ted Johns, who is acting as both general manager and director of golf. Although

Continued on page 42
Pursell's PolyGraph™ computer program can predict your turf's response. As sure as the seasons change, you can count on Pursell's POLYON® fertilizers. They are the most reliable controlled release fertilizers you can buy, because temperature is the only factor that affects their release of nutrients. Our patented POLYON coating is extremely durable and very safe. It ensures against early release which can cause excessive clippings or even injury to your turf. POLYON fertilizers gradually meter out nutrients, feeding
PREDICTABLE

your turf each day as needed. In fact, Pursell's POLYON technology is so dependable, we can use our exclusive PolyGraph™ computer program to predict how your turf will respond months after application.

You can count on POLYON fertilizers year in and year out to give you greener turf for a longer period of time. Call (800) 334-8583 for the formulator or distributor nearest you.

POLYON™ is a registered trademark of RLC Technologies. The POLYON design and the GREEN color are trademarks of RLC Technologies.
Yes, it CAN be done!

As the public-access golf market continues to grow, so does the competition. In today’s crowded marketplace, building a better business is more than a good idea. It’s an absolute necessity.

Public Golf Forum, sponsored by Golf Course News, is the national conference specifically for owners, managers and superintendents of golf courses who want to improve their bottom line and secure their competitive success.

Presented by high-profile industry professionals, Public Golf Forum gives you practical, cost-cutting business strategies, vital information on industry trends and competition, field-proven marketing ideas to help you increase rounds, the latest on products and services, and more.

Plan now to join other golf industry professionals from around the country if you want to:

- Add value and prestige to your course without adding to your budget.
- Increase your green fees, increase your rounds, find new profit centers.
- Learn marketing strategies that will help you position your course against competition.
- Cultivate a loyal clientele with improved customer service.
- Run a tighter ship—make better business decisions, motivate your employees, strategize for measurable results.
- Find products, equipment and technology that will help you maximize efficiency.
- Exchange ideas with your peers from across the country.

Plan now to join other golf industry professionals from around the country if you want to:

- Add value and prestige to your course without adding to your budget.
- Increase your green fees, increase your rounds, find new profit centers.
- Learn marketing strategies that will help you position your course against competition.
- Cultivate a loyal clientele with improved customer service.
- Run a tighter ship—make better business decisions, motivate your employees, strategize for measurable results.
- Find products, equipment and technology that will help you maximize efficiency.
- Exchange ideas with your peers from across the country.

**SAVE TWO WAYS:**

- Register by Sept. 23 and save $100.
  First registration from your company only $495 (after Sept. 23, $595).
- Team Discount—save 20% more!
  Each additional registrant from your company only $395 (after Sept. 23, $495).

Includes lunches, continental breakfasts, entrance to Vendor Exhibits, Monday Industry Networking Reception and all Conference materials.

To register call (800) 272-1812
Fax: (207) 846-0657 or
Register online: [www.upexpo.com](http://www.upexpo.com)

---

**PUBLIC GOLF FORUM: HOW TO BUILD A BETTER BUSINESS**

**Keynote Speakers:**

**GREG NORMAN**
Golf's Premier International Spokesman

**DR. MICHAEL HURDZAN**
Premier Golf Course Architect

---

**PUBLIC GOLF FORUM**

**A NATIONAL BUSINESS CONFERENCE AND EXPO FOR SUPERINTENDENTS, OWNERS, MANAGERS AND DEVELOPERS OF PUBLIC-ACCESS GOLF FACILITIES**

**OCTOBER 26 & 27, 1998**

**RANCHO LAS PALMAS MARRIOTT RESORT**

**PALM SPRINGS, CALIFORNIA**

---

**OCTOBER 26**

**KEYNOTE PRESENTATION**

**Public Golf Design: Cut Costs, Build Profits—Dr. Michael Hurdzan**

**Breakfast Session Changing The Face of Public Golf Management**

**Keynote Presentation**

**Renovation: Putting New Life into the Old Track**

**Business Factors Changing The Face of Public Golf Management**

**Keynote Presentation**

**Poa Annua Control: The Solution Is Here!**

**Developing New Markets: Resurrecting a 9-Holer in a Resort Marketplace**

**Keynote Presentation**

**Pitch-and Putt as a First Step Into Regulation Course Development**

**Keynote Presentation**

**Owner Focus: What Do Management Companies Look For in a Public Access Course**

**Keynote Presentation**

**New Developments: The Advantages of The Totally Organic Course**

**Keynote Presentation**

**Country Club-type Fertility On A Public Course Budget**

**Keynote Presentation**

**Widow's Walk: The First Results — The Proof's In the Pudding**

---

**OCTOBER 27**

**KEYNOTE PRESENTATION**

**Tomorrow's Player Starts at Today's Public Venues—Greg Norman**

**Rental vs. Buying:**

**Leasing vs. Buying: What's Best For You?**

**Permitting Made Easy:**

**A Step-By-Step Guide**

**Dealing with Maintenance:**

**How A Superintendent Should Select A Management Firm**

---

**LUNCH & EXHIBITS**

**OCTOBER 26**

**9:30 AM - 2:00 PM**

<table>
<thead>
<tr>
<th>MANAGEMEN'T/MARKETING</th>
<th>DEVELOPMENT</th>
<th>MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:30 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keynote Presentation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OCTOBER 27**

**9:30 AM - 2:00 PM**

<table>
<thead>
<tr>
<th>MANAGEMEN'T/MARKETING</th>
<th>DEVELOPMENT</th>
<th>MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:30 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keynote Presentation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**LUNCH & EXHIBITS**

**OCTOBER 26**

<table>
<thead>
<tr>
<th>MANAGEMEN'T/MARKETING</th>
<th>DEVELOPMENT</th>
<th>MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30 AM - 2:00 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch and vendor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OCTOBER 27**

<table>
<thead>
<tr>
<th>MANAGEMEN'T/MARKETING</th>
<th>DEVELOPMENT</th>
<th>MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30 AM - 2:00 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch and vendor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---
MAINTENANCE

BRIEFS

IGM NAMES WEST COAST MANAGER

PALM DESERT, Calif. — International Golf Maintenance, Inc. (IGM) has named Z. Gordon Davidson regional manager of the West Coast office here. Davidson is a 1976 business administration graduate of California Baptist University and holds a masters of divinity degree from Biola University in La Mirada, Calif. He is a member of the Golf Course Superintendents Association of America, National Golf Course Owners Association, National Recreation and Park Administration and U.S. Golf Association. "Z's experience in the contractual maintenance business will be a great asset to our team," said Scott Zakany, executive vice president of IGM.

HEART OF AMERICA SETS CONFERENCE

KANSAS CITY, Mo. — The Heart of America Golf Course Superintendents Association (HAGCSA) announced its 1998 Golf & Turf Conference will be held Nov. 4-5 at Harrah's North Kansas City Hotel & Conference Center here. This is the third annual event, featuring seminars and exhibits. The conference will feature a full day of programming for certified golf course superintendents, with tested Continuing Education Units, and a full-day U.S. Golf Association program for superintendents, club managers and other decision-makers from golf courses throughout the Midwest. Classes will be offered on advanced turf, landscaping and customer service for golf course employees. More information is available from Olivia Golden, HAGCSA, P.O. Box 419264, Kansas City, Mo., 64141-6264; e-mail ogolden@westernassn.com.

Workbench perfected at Wuskowhan club

By TERRY BUCHEN

WEST OLIVE, Mich. — One of the advantages of building a new turf-care center is the ability to incorporate new concepts along with time-tested winning ideas. Designing the equipment mechanic's workbench is one way to have some fun. And that's exactly what superintendent... Continued on page 19

Use soil's natural storage capacity during grow-in

By RICK KROEGER

Technology has improved mowing equipment. Ingenuity has created aeration equipment, which technology improved further. Science has developed biological pesticides. And fertilizers have become available in so many forms, it's difficult to keep up with all the new trade names.

Yet superintendents seem reluctant to abandon the old standby: "15-15-15 before planting." Because our knowledge of soil and water science has also improved, I feel it's time to re-evaluate this approach.

As the variety of readily available fertilizers has multiplied, superintendents have latched onto products which they understand and trust through experience — that is to say, through consistently safe usage.

Favorite products become favorites through predictability. Most superintendents have similar stories to tell about the time they tried "hype product X" and scrambled to recover from some form of negative fallout.

The wiser superintendents have returned to predictable, economical and environmentally responsible elemental fertilizers. They apply these to the ultimate storage system — the soil — for continuous availability, much as we store food in our pantries or refrigerators. Establishing and maintaining the nutritional balance of soil reserves allows the plant to energize its own genetic defenses against heat, drought, insects and disease. It also fortifies the plant to healthfully regenerate itself in response to close mowing and associated stress. Continued on page 14

British scientists work on grass that stays green

By TREVOR LEDGER

BERYSTWYTH, Wales — Working from a strain of meadow fescue that stays green during drought and remains lush throughout all seasons, the Institute of Grassland and Environmental Research (IGER) is working to develop a perennial ryegrass with the same attributes. IGER hopes to have seed available on the market around the turn of the century, according to Dr. Brian Clifford, coordinator of amenity and sports turf. "All plant varieties have to go through trials and stand up against other conventional varieties for other characteristics," Clifford said. "They have to get on a national list and meet certain DUS (Distinctness, Uniformity and Stability) trial requirements. Once you have that, you can market it in the UK."

IGER scientists said they discovered the so-called "staygreen" gene which causes yellowing in plants when the leaves are destined to die. By using DNA fingerprinting techniques to map genes, scientists are able to "silence" the gene responsible for yellowing. Plants turn yellow when placed under stress like heat, drought, salinity, pests, diseases, time and pollution. While the gene does not stop those stresses, it does remove the symptom — yellowing. Official trials at the Sports Turf Research Institute are under way and it is hoped that approval of new grass strains incorporating the "staygreen" gene will come... Continued on page 15

The Maritimes are home for Crowbush's Pierce

By PETER BLAIS

PRINCE EDWARD ISLAND, Canada — There were a lot of nervous PEI course owners when head superintendent Nancy Pierce's facility, Crowbush Cove, opened in 1993.

"They were afraid Crowbush would take away all their business," Pierce recalled of the north shore course that has received numerous awards and in late July hosted the Export 'A' Skins Game featuring Mark O'Meara, Fred Couples, John Daly and Canadian Mike Weir. "But golf rounds are up on the whole island since we opened. You can't get a tee time anywhere, unless you call ahead."

"The Skins game was just amazing. We had 500 people on the course on the busiest day of last year's Canadian Amateur Championship. We had more than 5,000 a day for this year's Skins game. And it was televised in more than 50 countries. The Tourist Board has gotten hundreds of calls about golf on PEI since then."

Equally gratifying to Pierce were the many calls and faxes she received following the Skins game from fellow Canadian superintendents congratulating her on the course conditions and how well that reflected on Canadian golf.

Continued on page 18

Workbench perfected at Wuskowhan club

Superintendent Ronald A. Brandon and his crew built this workbench complex.
Use soil's natural storage

Continued from page 13

ated golf course wear.

Most elements stored in the soil have a long shelf life — elements like iron, zinc, copper, molybdenum and phosphorous. Some of the intermediate shelf-life elements are calcium, magnesium and potassium. The most famous short-shelf-life element is nitrogen, although calcium, magnesium and potassium may also have less staying power under certain soil or water situations.

Fertilizer selection is simplified if we learn to understand storage and manage it in concert with the elemental changes that occur due to the impact of rainfall and irrigation water content. This learning curve begins with analysis of the physical soil and chemical testing of both the soil and water. It’s important to remember that laboratories simply analyze soil and water; it takes a skilled agronomist specializing in soil and water chemistry and turf nutrition to interpret this data.

This storage process is further established by replacing the soil’s elemental shortfalls and reducing excesses. This provides balanced nutritional availability, much as we balance fruits, vegetables, meats, etc. in our own diet. The process is maintained by monitoring and replenishing on an annual basis, at the very least.

When these steps are accomplished, most soils will provide the plant all its nutritional needs for many months at a time and require only minimal replenishment of potassium and nitrogen. We have been successful in using this approach to grow in and open new golf courses three to four months following seeding or sprigging. When the soil is nutritionally in balance, nitrogen and potassium — applied through the sprinkler system via a fertilizer injection system at the pump house — may be all the fertilizer needed for several months.

A fast grow-in reduces the chance of erosion and the resulting costs associated with repair. It’s also important to note that most golf course openings are delayed by reseeding and resodding operations. A quicker grow-in reduces costs, which improve cash flow, as the course is opened sooner.

In my activities with Golfplan, we have been successful in using this approach to quickly grow in and open new courses. One of these, Chin Ju Country Club in the hot and humid climate of southern Korea, included cool-season grasses grown in during the monsoon season when disease activity and erosion might normally be considered perilous. Because the soil was nutritionally in balance, and a slow-release nitrogen source had been applied before seeding, nitrogen and potassium applied through the sprinkler system was all the fertilizer needed until dense turf covered the surface.

Heavy fertilizer application equipment, which would have rutted the perfectly shaped features, was not needed. Light-rate, preventive fungicide applications were made to counteract the combination of fast growth, high temperature and high humidity. These spray applications were made every 10 days using sprayers with high flotation tires.

Another Golfplan design, Bandai National Park Resort Golf Club in Japan (at 1,500 feet of elevation), badly needed a fast grow-in due to the combined issues of a short growing season and monsoons which occur for a solid month from the middle of June through the middle of July. Using these soil-storage techniques, grow-in at Bandai went off without a hitch.

We’ve made believers out of grow-in superintendents. They consistently remark on the additional attention we pay to soil chemistry. It’s the difference between a potentially nightmarish grow-in and one which was rather uneventful.

In managing soil and water chemistry, certain complications may occur based upon the size of the soil storage capacity, or CEC (cation exchange capacity), soil and air temperatures, rain and irrigation chemistry, and total rainfall, among others. In...
Brits study ‘green’ gene

Continued from page 13

gene will be given within three years.
Clifford explained that in the 1960s, a man named Joe Lewis noticed that a meadow fescue in his field remained green during the autumn and winter and this became, and remained, a curiosity. About 10 years ago, IGER amenity plant breeder Danny Thorogood picked up on it and pointed out how useful it could be. The research and development of “staygreen” emerged from there.

Many questions need to be addressed: for example, such as if a grass does not yellow how can its health be monitored?

“It’s a question of learning how to manage these new grasses,” said Clifford. “You can tell the difference between healthy grass and the senescing grass when you get close up. It is a different green and will be identifiable to the trained eye.”

Clifford said that, for now, IGER is concentrating exclusively on perennial ryegrass. Since rye is a cousin of meadow fescue, transferring the gene conventionally was relatively easy, he said. “Kentucky bluegrass would be another good target for it,” Clifford said. “We do plan to use it in other grass species. Bentgrass is an obvious target, as are Bermuda grass and zoysia. But the breeding program is much more difficult because those are another genera.”

That breeding would be made easier by using genetic engineering techniques, he said. A possible added bonus to IGER’s research is found in the biological process. Plants regenerate themselves by using old, discarded tissue and cells to build new growth. In effect, it recycles itself using second-hand building blocks of life.

However, by removing the plant’s ability to “kill itself off,” it reduces its ability to fight disease. In the case of new building blocks – i.e. the plant’s environment. Therefore, the growth would well be slowed down, which holds potentially beneficial implications for mowing frequency and other methods.

IGER has maintained strong links with the nearby University of Wales in Aberystwyth and is a government-funded institution. This program is funded by British commercial seed companies, Clifford said.

Soil capacity

Continued from previous page

some cases minimal replacement of calcium and magnesium may also be required.

In any case, new courses which have not accomplished this more thorough type of pre-plant fertilizer application will not grow in as quickly as they could. I have been called in to consult on a number of golf courses where grow-in superintendents followed the very desirable ISGA Method for Putting Construction, only to find the CEC too low to adequately store nutrients. The solutions available are, in all cases, quite expensive from an annual operations perspective or that of amending the soil vertically with deep coring/drilling and subsequent filling of the holes with a high CEC mixture. In no case is this more desirable than building greens right the first time.

Existing courses that don’t maintain balance in the soil reserve can offer high-quality playing conditions — but only at a steep financial premium. Courses where management is satisfied with average to above-average playing conditions tend to have a steady increase over years, while relatively low, based mainly upon the inconsistencies of annual weather.

It’s best to establish sound nutrient storage during grow-in. But existing courses can also reap significant improvements in reliability through this simple adjustment.

The old standby 15-15-15 application is an unnecessary expense when state-of-the-art soil and water science is used. By understanding the soil’s natural storage capacity, fertilization is simplified and economized. Savvy superintendents can then take the money typically spent on the old shotgun approach and use it to open their course earlier — or, in the case of an existing facility, make the turf better all summer long.

Soil capacity

Continued from previous page

CIRCLE #106

© The Tomy Company 1998

September 1998 15
There are no guarantees on the course...
Or are there?

Apply Barricade\textsuperscript{\textregistered} this Fall for the only Crabgrass control that lasts through next season. Guaranteed.

Only Barricade offers you Crabgrass control like this. Apply once this fall, when things are slower, and that's all you have to do to stop Crabgrass next season. That's because only Barricade offers you both the long residual and the performance that can last through the winter and deliver in the spring. Its low solubility and volatility means it stays put in the weed germination zone and won't break down over the winter months. And it is the only one guaranteed to last through the next season. There's nothing else that offers you this - nothing else can.

So take care of one of spring's more frustrating chores this fall, and you'll have what everyone on the course wants: guaranteed success.

To find out about the Barricade guarantee, call 1-800-395-TURF for the name of your Novartis Sales Representative. Or you can visit our website at www.cp.us.novartis.com
Pierce earns accolades for Crowbush's conditions

Continued from page 13

“Mike Wier’s caddie sought me out of the crowd to tell me how much the players enjoyed the course,” she said. “The organizers said this was the best Skins game yet because of the enthusiasm of the staff and everyone on PEL.”

The accolades may be surprising considering Pierce had never set foot on a golf course “except as a short cut to get from my house to school” when she graduated from the University of Guelph with her bachelor’s degree in ecology in the early 1980s. She worked for several years as a technician in the university’s Botany Department before a job opening doing turfgrass research in the Horticulture Department brought her under the guidance of renowned Canadian turfgrass researcher Dr. Jack Eggens.

Pierce maintained turf plots at the school and at several private Toronto clubs that worked with Eggens and his staff. Pierce found she enjoyed her time on the links and jumped at the chance to become Bob Brewster’s assistant superintendent when he took over Toronto Golf Club.

“It was tough to leave the university setting,” she recalled. “There’s nothing quite like it — the facilities, the people, the atmosphere. But there was something about the golf course and being able to see the results of your work almost immediately. Plus it’s just a beautiful place to work.”

Pierce spent two years as second assistant at Toronto GC before migrating south to Pinehurst (N.C.) National shortly after the Jack Nicklaus design opened. She had every intention of remaining in the United States. But just two months after accepting the position, the Royal Canadian Golf Association recruited her for a post at Belvedere Golf & Winter Club in Charlottetown PEI.

“My parents were from Atlantic Canada and I had always vacationed there,” she said. “It was just too good an opportunity to pass up.”

After several years at Belvedere, the provincial government offered her the head superintendent position at what many people were predicting would soon become the island’s top course, Crowbush Cove. She arrived in January 1992, in time to oversee the grow-in prior to the course opening in 1993.

“[Architect] Tom McBroom was here every 10 days or so that first summer,” she recalled. “The course looked like it would be intimidating to maintain with all the bunkers and the wind. And we were going to have a small staff [12 people]. But I couldn’t wait.”

Pierce’s first grow-in experience was a pleasurable one. “There were absolutely no golfers,” she recalled. “You could water whenever and wherever you wanted. The greens didn’t have to be cut every day. You had time to play with and fix the little things you never get a chance to do once the course opens.

“But it was also a hectic time. The seedlings were so tender you had to be extremely careful. We had a number of washouts during construction and you always had to contend with the wind. And we were going to have a small staff [12 people]. But I couldn’t wait.”

Pierce’s first grow-in experience was a pleasurable one. “There were absolutely no golfers,” she recalled. “You could water whenever and wherever you wanted. The greens didn’t have to be cut every day. You had time to play with and fix the little things you never get a chance to do once the course opens.

“But it was also a hectic time. The seedlings were so tender you had to be extremely careful. We had a number of washouts during construction and you always had to contend with the wind. But it was a lot of fun. And the course was perfect opening day.”

While perfect from day one, few guessed the course would meet with such success in so short a time. Golf Digest voted it 1994’s Best New Course in Canada and has awarded it a coveted five-star rating. SCORE Magazine ranked it among Canada’s top 10 layouts. In addition to the recent Skins Game, it has hosted a Canadian Tour event and the Canadian Amateur. While it has benefited from its oceanside location and McBroom’s design skills, Crowbush has also thrived because of the care Pierce lavishes upon it.

“She certainly is not out of her league,” said Merlin Affleck, superintendent at nearby Stanhope
The workbench
Continued from page 13
Ronald A. Brandon, equipment mechanic Chris Boyce and the crew did at Wuskowhan Players Club in this Grand Rapids suburb.

“Our mechanic’s workbenches were built in-house whenever possible to have total control,” said Brandon, a certified golf course superintendent.

“We are very pleased with the Crowbush’s Nancy Pierce
Continued from previous page
Golf Club and treasurer of the Canadian Golf Course Superintendents Association. “She’s very good at what she does. The success she and the course have had has helped convince the operators of other courses on PEI to improve their operations.”

Said Pierce: “I do the best I can. No one would ever call me lazy. I’m up at 4:30 a.m. seven days a week from May through October. We have a small staff so I’m out there cutting greens and raking bunkers. But it’s a great life.”

That 12-person staff was small and very inexperienced as recently as last summer when a change in the provincial government led to numerous personnel changes at provincial-owned Crowbush. “All I did was teach last summer,” Pierce remembered. “And we had a tough winter. But the crew and the course came through great.”

Pierce’s biggest challenge since the tournament has been keeping the right amount of water on the course through the dry weather that settled over the Maritimes this summer. Crowbush is one of the few layouts on the island with double-row irrigation through the fairways and sprinklers on tees and greens. “But we’re still seeing a lot of isolated dry spots and the roughs are turning brown. People still want to see green grass,” she said.

Though it is changing, people also generally expect to see a man when they ask to see the Crowbush superintendent.

“Being a woman has never been a disadvantage,” Pierce said. “If anything, it has been an advantage. When I’m with a group of superintendents, I’m often the one outsiders remember.”

As for the future, she said: “There are days when every superintendent says I’m ready to quit this place.” But when I stand on the 11th hole and look out at the ocean, I know it doesn’t get any better than this. Right now, I plan to stay here as long as they’ll have me. I know I’d never move out of the Maritimes. I love it here.”

The workbench
Continued from page 13
Ronald A. Brandon, equipment mechanic Chris Boyce and the crew did at Wuskowhan Players Club in this Grand Rapids suburb.

“Our mechanic’s workbenches were built in-house whenever possible to have total control,” said Brandon, a certified golf course superintendent.

“We are very pleased with the way our equipment shop area turned out. We have great employees at our club and we put our collective heads together.”

The workbenches were 40 inches high and 27 inches deep. The tops are covered with 1/8-inch plated steel that is welded at the corners. The steel is covered with Rustoleum 9100 Series 2 — Part Epoxy, which provides a firm and hard finish, Brandon said.

On areas of the benchtops that receive extra wear and tear, the Wuskowhan crew covered the metal with 3/8-inch rubber matting. They painted the epoxy product onto the matting and the top 6 inches on the wall above the bench.

The bottom kickboard was painted a dark red for high visibility for safety and decorative reasons. The 12- by 6- by 18-inch drawers are a metal modular type that were bought locally. They hold many everyday items, such as ball-washer parts and aerifier tines, and the contents of each drawer are clearly identified with a plastic label.

Two larger doors — 24 by 14 inches — hold grease rags, towels, lapping compound, string line, trimmer spoons and heads, tow straps and jumper cables.

Electric outlets above the benches are a quad type, with all of them on a single 30-amp circuit breaker. The bench grinder, air hose with quick disconnects and drill-bit holders fit nicely while allowing plenty of room to work.

Two additional benches were built out 90 degrees from the wall-mounted benches. These contain mechanic’s vises and quarter-inch solid steel for truing-up greensmowers. Because of the 90-degree angle, mechanics can walk on three sides of the bench and easily work on the equipment.

Crowbush’s Nancy Pierce
Continued from previous page
Golf Club and treasurer of the Canadian Golf Course Superintendents Association. “She’s very good at what she does. The success she and the course have had has helped convince the operators of other courses on PEI to improve their operations.”

Said Pierce: “I do the best I can. No one would ever call me lazy. I’m up at 4:30 a.m. seven days a week from May through October. We have a small staff so I’m out there cutting greens and raking bunkers. But it’s a great life.”

That 12-person staff was small and very inexperienced as recently as last summer when a change in the provincial government led to numerous personnel changes at provincial-owned Crowbush. “All I did was teach last summer,” Pierce remembered. “And we had a tough winter. But the crew and the course came through great.”

Pierce’s biggest challenge since the tournament has been keeping the right amount of water on the course through the dry weather that settled over the Maritimes this summer. Crowbush is one of the few layouts on the island with double-row irrigation through the fairways and sprinklers on tees and greens. “But we’re still seeing a lot of isolated dry spots and the roughs are turning brown. People still want to see green grass,” she said.

Though it is changing, people also generally expect to see a man when they ask to see the Crowbush superintendent.

“Being a woman has never been a disadvantage,” Pierce said. “If anything, it has been an advantage. When I’m with a group of superintendents, I’m often the one outsiders remember.”

As for the future, she said: “There are days when every superintendent says I’m ready to quit this place.” But when I stand on the 11th hole and look out at the ocean, I know it doesn’t get any better than this. Right now, I plan to stay here as long as they’ll have me. I know I’d never move out of the Maritimes. I love it here.”

The workbench
Continued from page 13
Ronald A. Brandon, equipment mechanic Chris Boyce and the crew did at Wuskowhan Players Club in this Grand Rapids suburb.

“Our mechanic’s workbenches were built in-house whenever possible to have total control,” said Brandon, a certified golf course superintendent.

“We are very pleased with the way our equipment shop area turned out. We have great employees at our club and we put our collective heads together.”

The workbenches were 40 inches high and 27 inches deep. The tops are covered with 1/8-inch plated steel that is welded at the corners. The steel is covered with Rustoleum 9100 Series 2 — Part Epoxy, which provides a firm and hard finish, Brandon said.

On areas of the benchtops that receive extra wear and tear, the Wuskowhan crew covered the metal with 3/8-inch rubber matting. They painted the epoxy product onto the matting and the top 6 inches on the wall above the bench.

The bottom kickboard was painted a dark red for high visibility for safety and decorative reasons. The 12- by 6- by 18-inch drawers are a metal modular type that were bought locally. They hold many everyday items, such as ball-washer parts and aerifier tines, and the contents of each drawer are clearly identified with a plastic label.

Two larger doors — 24 by 14 inches — hold grease rags, towels, lapping compound, string line, trimmer spoons and heads, tow straps and jumper cables.

Electric outlets above the benches are a quad type, with all of them on a single 30-amp circuit breaker. The bench grinder, air hose with quick disconnects and drill-bit holders fit nicely while allowing plenty of room to work.

Two additional benches were built out 90 degrees from the wall-mounted benches. These contain mechanic’s vises and quarter-inch solid steel for truing-up greensmowers. Because of the 90-degree angle, mechanics can walk on three sides of the bench and easily work on the equipment.

INTRODUCING
SUPER STAR
The Future Of Bunker Maintenance

The new and most advanced sand maintenance system, bringing superiority in ergonomics, finish and bunker play.
To lease or not to lease: A checklist for golf course superintendents

By TERRY BUCHEN

WILLIAMSBURG, Va. — Making the difficult decision of whether to buy, lease, or lease/purchase for their management equipment has always challenged golf course superintendents. Leasing is becoming more and more attractive, especially when cash-flow situations warrant their use rather than an outright purchase.

The following "Lease Checklist" was developed by the Leasing Education Committee of the Federal Reserve Board, with additions that suit the golf course management business as well. It helps answer some of the important issues and questions when considering leasing that next desired piece of equipment:

• What are the costs of the lease at its beginning, during its term and at its end?
• How long will the lease terms last?
• Will the course buy the equipment at the end of the lease?
• How much will the equipment cost to purchase at the end of the lease?
• What do the terms mean and how can you use and understand the new federally required disclosures?
• How much can the course afford to pay up front? Each month? At lease end?

Your Reputation Never Looked Better...From Start to Finish!

For the Classic Look of Championship Quality Turf and Ornamentals, You Need:

Split Nitrogen - nitrate nitrogen for fast response even in cool weather and ammonium-N for continued feeding.

100% Available Phosphate.

Chloride-Free Potash - all from potassium sulfate.

Homogeneous Prills - no nutrient segregation, dust free, accurate application.

For Service:
1-800-23 HYDRO
1-800-234-9376

Hydro Agri
North America, Inc.
For Service: 1-800-234-9376
1-800-23 HYDRO
Growing with America since 1946™
Patino the Old Tom Morris choice

SOTOGRANDE, Spain — Jaime Ortiz-Patino, owner, president and golf course superintendent at Valderrama Golf Club here, has been selected to receive the 1999 Old Tom Morris Award from the Golf Course Superintendents Association of America (GCSAA). The award presentation will take place in Orlando, Fla., Feb. 13 during the association’s 70th International Golf Course Conference and Show.

GCSAA’s most prestigious honor, the Old Tom Morris Award is presented each year to an individual who, “through a continuing lifetime commitment to the game of golf, has helped to mold the welfare of the game in a manner and style exemplified by Old Tom Morris.”

Morris (1821-1908) was greenkeeper and golf professional at the Royal and Ancient Golf Club of St. Andrews, Scotland; a four-time winner of the British Open (1861, '62, '64 and '67), and ranked as one of the top links designers of the 19th century.

"Golf is truly an international game and Jaime Ortiz-Patino is certainly a recognized figure in the industry worldwide," said GCSAA President George Renault. "He is a person who has not only given his time, talents and resources to benefit the sport, but has also advanced numerous philanthropic causes throughout the world."

Ortiz-Patino has had ties to GCSAA and the golf course superintendent profession for more than a decade. Since his purchase of Valderrama Golf Club in 1985, he has attended the association’s annual conference and show, participating in numerous education seminars and forums. In fact, despite wearing numerous hats at Valderrama, he says he is “a golf course superintendent at heart.”

Last year, Ortiz-Patino agreed to serve as the campaign chair for GCSAA’s 83.5 million endowment campaign — Investing in the Beauty of Golf — which will support applied research and expanded educational opportunities for golf course superintendents.

"In the future of golf it will be necessary to have expert people looking after golf courses," Ortiz-Patino said. "This profession really only exists in America. Other countries in Europe are beginning to have golf course superintendent associations, but they really don’t have the education or training that you get in the States. And I think it is very important that if I can help, I am very happy to help."

Ortiz-Patino’s interests also include a past term as president of the World Bridge Federation (for 10 years), and collections of art, wine, books and one of the world’s most extensive collections of golf memorabilia.

Precious little in this world is truly reliable.

In golf course architecture you’ve been able to depend on our dependability for over 20 years.

1-800-523-3757
Texans tough it out in heat, drought

Continued from page 1

That's the human side. "(We have to be very careful with the staff... There have been 20 to 25 deaths in the Houston area due to the heat," said Mike Sandburg, superintendent at Lakeside Country Club in Houston and vice president of the South Texas Golf Course Superintendents Association.

The business side is that golfers are staying in cooler spots than golf courses. "(People are playing in the early morning, or at twilight, or not at all," was the word from throughout the South, and one private course in Houston was completely shut down.

The maintenance side is that golf course roughs and fairways are showing cracks large enough to lose a golf ball, water lines are breaking in the parched earth; courses, in many cases, are under water restrictions, or must use effluent or poor-quality water that causes a range of agronomic problems of its own, and a strange outbreak of the rare Bermuda stunt mite has occurred, thinning the turf and fooling superintendents who don't recognize part of the problem is a pest.

After two months of drought, Brian Maloy, an agronomist for the U.S. Golf Association Green Section's Mid-Continent Region, softened the outlook a bit in mid-August, saying: "It's not as bleak as we painted the picture originally. From Louisiana to New Mexico and even to Oklahoma, there's a large difference."

Nevertheless, superintendents in the toughest weather-struck areas fought an unrelenting battle.

In San Antonio: "It sounds odd, but we would love a hurricane or tropical storm right now," said Bruce Burger, superintendent at The Quarry Golf Club. "Our turf needs that much rainfall to get back up to a level that is safe."

In Dallas: "It, Worth is having problems with water supply lines," said Keith Ihms of Bent Tree Country Club, president of the North Texas Golf Course Superintendents Association. "The ground is shifting, they are taxing the systems beyond what they are supposed to, and they are blowing out main lines. A 90-inch line went out last week and no watering was allowed at all."

In Houston: "I'm from Kansas and I haven't seen it this hot and dry anywhere," said Sandburg. "Even with the wet spring we had, we're 12 inches below normal. We have taken a dramatic swing. We would need a full week, if not 10 days, of rain to get back up. I have earth-cracks that are starting to move into the fairways. I water enough to keep the grass alive, but there is no subsurface moisture."

"Superintendents here always look toward Sept. 1," said Ihms. "If you make it that far, it gets downhill after that. But the forecast is not calling for any major break in the weather through September. It won't necessarily be as hot, but dry..."

Burger explained that high-pressure systems "camped out" over the Gulf of Mexico, forming a sort of meteorological dome. Fronts coming from Kansas-Oklahoma from the Gulf merely bounced off that dome of pressure. *** As the drought and heat dragged on, water quality became more of an issue on Texas courses. "If they use well water, it's real high in sodium," said Ihms. "A lot of guys are getting effluent, or water from the city. [Dallas] mainly pumps out of the reservoirs; but to conserve water, they're supplementing it with well water, which is not very good."

According to Ihms, some superintendents were not aware the city was doing this and, before long, that had water adversely affected the turf, especially bermgrass. The USGA's Maloy said Oklahoma City courses had similar problems because well waters there are high in salts and sodium, especially causing problems in clay soils.

"With sodium, your option is..."

Continued on next page

The One and Only.

HERITAGE*—An Ounce of Prevention...

HERITAGE is a highly flexible fungicide that exhibits both preventative and curative activity against most late summer, fall and winter turfgrass diseases including gray leaf spot, fusarium patch and snow mold, plus the following advantages:

- Improves turf quality
- Controls brown patch, Pythium, take-all patch, summer patch, anthracnose and snow mold
- Reduced risk to environmental resources
- Low risk toxicological profile
- Low rates, extended spray intervals
- Novel mode of action

Once you learn about the powerful preventative protection and its fit with your best management practices, you'll agree that it's time to change the course of your turfgrass disease management program, with HERITAGE.

For more information, contact your authorized Zeneca Distributor, or call Zeneca Professional Products Toll Free at 1-888-617-7690.

www.zenecaprofprod.com

---

**Fusarium Patch** *(Microdochium nivale)* on Bentgrass

<table>
<thead>
<tr>
<th>Percent Control</th>
<th>HERITAGE 50WG</th>
<th>Untreated</th>
</tr>
</thead>
<tbody>
<tr>
<td>OZ/1,000 sq. ft.</td>
<td>0.4</td>
<td></td>
</tr>
</tbody>
</table>

*Application Interval (days): One application, all treatments applied 3/7/96, final readings 3/18/96*

*Dr. Larry Stowell, PACE Turfgrass Research Institute, San Diego, CA, 1996 US 84-96-P104*

**Red Thread** *(Laetisaria fuciformis)* on Perennial Ryegrass

<table>
<thead>
<tr>
<th>Percent Control</th>
<th>HERITAGE 50WG</th>
<th>Chigoa 260/9</th>
<th>Prostar Plus</th>
<th>Sentinel 40WG</th>
<th>Sentinel 40WG</th>
<th>Fore 800WP</th>
<th>Bayleton 25WG</th>
<th>Banner 11EC</th>
<th>Eagle 40WP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oz/1,000 sq. ft.</td>
<td>0.4</td>
<td>0.2</td>
<td>4.0</td>
<td>2.5</td>
<td>0.25</td>
<td>0.33</td>
<td>8.0&quot; 4.0&quot;**</td>
<td>2.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*Application Interval (days): Single applications, all treatments applied 3/21/97, final readings 5/2/97*

Dr. Houston Couch, Virginia Tech, 1997
Texas heat
Continued from previous page
only as good as the water you have and your ability to leach the sodium through the soil," Maloy said.

Some superintendents were using gypsum and other products to try to flush the offending sodium through the soil. "But you're using the same water to flush it," Ihms pointed out.

Many superintendents are injecting a type of sulfuric-based acid product at the pump station that is not corrosive and lowers the water's pH. Meanwhile, insect pests are wreaking havoc. An invasion of grasshoppers was even reported in downtown Ft. Worth.

So many areas don't have foliage that pests like grub worms and cutworms have been concentrating in places that are green.

Burger said Bermuda stunt mites "have been a big problem throughout the mid-continent region, and Texas in particular.

"I think a lot of superintendents have these mites but don't know because they make the grass look like hot spots," he said. "I've never had it before in my 20 years. The mites tend to harbor themselves where the leaf and sheath meet and suck the juice out of the plant."

The plant "stunts" back into a tight rosette, so the area becomes thin and dry-looking. Spraying Scimitar GC and Merivik in two applications 10 days apart kills the mite, he said.

Overseeding was another problem. While courses experienced a good season for overseeding, the heat arrived when the ryegrass was dying out and Bermudagrass didn't come in as quickly as normal.

"Bermuda doesn't like 105-degree weather, either," said Ihms. "Bermuda can normally handle 96 or 99 degrees. But I've heard new Bermuda courses are having trouble."

Meanwhile, superintendents are using various cultural methods to keep their courses alive. For instance:

• Some courses limited play at certain times of the day and/or restricted golf carts to cart paths to relieve the stress on the turf.

• Many, like Sandburg at Lakeside CC, increased mowing heights and used more slow-release or organic-type fertilizers to build up the turf stamina.

• Many, like Burger at The Quarry, are trying to keep potassium levels up and allow the Bermuda to store carbohydrates for the fall and winter. "That's what Bermuda lives off in the winter-time," Burger said. "It also strengthens the cell walls of the plant so it creates a harder plant that is more resistant to drought and disease."

• Many, like Ihms at Bent Tree, are cooling the green canopies with fans. "We have nine greens that have two to five portable fans from 7 a.m. to 7 p.m."

• Others, like Burger, are using various cultural methods to keep their courses alive.

For instance:

• Many water their courses during the day as well as at night. Those with state-of-the-art irrigation systems can adjust the water flow. Instead of running an irrigation head for 20 minutes, they might prefer running it three times at 6 minutes each.

• "But if you have water restrictions you're in trouble," Ihms said.

Maloy said golf courses with good water quality, electrical hookups at the green sites, and with excellent surface, subsurface drainage characteristics and with good water quality are doing well.

"But now I'm concerned about this next year," Ihms said. "The Bermudagrass is not healthy and now we're going to go out and verticute it and do all the other things we do, then dump a bunch more seed on it in September. Next year we could have a cumulative effect of this [stress]."
NC State eyes 'lab' course

Continued from page 1

involved "have been very supportive of the fact that this is going to be a teaching and research tool as much as it is a recreational facility," Peacock said. "We are also getting a lot of support from the university's ecological community — botany, zoology and so forth — and they will have input [in the project] as well as people from the agronomic side."

NC State will also strive to initiate a PGA Professional Golf Management Program, he said, adding that the only thing that has prevented that in the past has been the absence of a golf course.

Peacock is especially interested in the opportunity for long-term research into "everything you can think of — variety testing, leaching and runoff studies, effects of different grass types in buffer zones," he said. "It's an excellent opportunity to look at how we can go into an area from the beginning, through design, construction and proper management, institute Best Management Practices and make them work."

It also affords an opportunity to evaluate techniques and materials as they come into existence.

NC State officials envision the Fazio track as a model for courses designed in the same fashion in similar locations.

The project, Peacock said, is similar to Kansas State's new course, "but much different in climate, geographical location, topography, soil types and so forth. It will fit very well into the traditional mid-Atlantic transition zone golf course. What we learn will be applicable to Best Management Practices for this region."

Once permitting and routing are accomplished, a GIS [Geographic Information System] model developed by a zoology professor will be used to investigate bird distribution in relationship to the habitat. Later, it will monitor changes in wildlife in relationship to changes in land use.

"This is an excellent opportunity to see how his model works with golf course development," Peacock said. "It has been used in other situations, primarily with military facilities... A GIS software company on Centennial Campus will help us."

Wildlife habitat and the changes in habitat will also be monitored, as will water quality. "There are some protected streams on the property that we will look at," Peacock said.

Multiple lysimeters will be placed in greens and fairways, while catch basins will be installed to check surface runoff, he added.

From the students' viewpoint, the Centennial Campus course will be a living laboratory and training ground.

"We hope [the course] will use a lot of our turf students as interns and the clubhouse opera-

MAINTENANCE

Here. There. Everywhere.

How's that for application guidelines?

The golf course property lends itself to "potential for a wide range of golf holes," Fazio said. "It's an upper Piedmont area — beautiful natural rolling terrain and many areas of intense vegetation."

He said it could play to par 71 instead of 72, depending on how the wetlands and creeks affect the design.

Fazio's team is already at work on a complete renovation of the University of North Carolina at Chapel Hill's 40-year-old Finley Course, which sits 25 miles away from the Centennial Campus.

Starting construction in late August or early September, Fazio will build "in effect, a brand new golf course," he said. The new layout will be contained on a portion of the present site, but the holes are being completely repositioned and designed with the Fazio touch.
Composting: Planting the seeds of environmental awareness

By JOHN FARLEY

BORACAY, The Philippines — The recycling and compost program at Fairways and Bluewater Boracay here is in full swing, as are the club's community outreach and education program.

This was made evident recently when elementary school students from Little Acorn Montessori were invited to the golf course for a field trip. The students learned how recycling and composting can greatly reduce the waste generated by people. By teaching young minds the importance of resource conservation we are perpetuating a positive trend — one that can only benefit future generations.

Forty-two students from 7 to 14 gathered at the Fil-Estate Eco Centre, located near the 17th fairway and the maintenance building. I explained what solid-waste management is and how Fil Estate is dealing with the waste created at the course. They learned about all the different categories of waste, like paper, plastic bottles, glass bottles, aluminium cans and batteries, all of which can be separated and recycled.

To learn how to recycle, we had them sort through a large pile of materials. They pulled out all the recyclables and put them into the appropriate containers. When they were finished, only a small pile remained. Everyone was amazed at how recycling reduced the amount of waste we started with. They also enjoyed the "hands-on" aspect of the demonstration. I explained that all the trash from the entire facility comes to the Eco Centre for processing. All recyclables are dealt with accordingly and all paper is shredded and composted.

The students then got their first lesson in composting. I explained that composting is the same as recycling except that, with composting, the entire process takes place on site.

All green waste products, such as grass clippings, leaves and brush trimmings, are composted.

The finished product is called "humus," an excellent soil amendment and potting mix.

The finished product is called "humus," an excellent soil amendment and potting mix.

On greens, On tees, On fairways, roughs, flower beds, transplants — even in your divot mix. Milorganite delivers outstanding results for a uniform playing surface. No other fertilizer is easier on plants or simpler to use. Milorganite's slow release, organic nutrients won't burn or cause a flush of growth. Plus, it's high in micronutrients such as iron to promote dense, vigorous turf.

And Milorganite resists leaching, for a sound environmental profile. So call your distributor today, or call Milorganite's turf professionals direct at 1-800-304-6204. It's easy.
Think Of It As
The Swiss Army Knife
Of Utility Vehicles.

The new E.Z.GO Workhorse™ does it all.
Hauls plants and fertilizer. Carries sand, gravel, bales of straw, building materials. And all your tools from shovels and hoes to mowers and blowers. It comes with lots of standard features like an 11-h.p. 350cc engine, a 1200lb. payload capacity and an exclusive heavy duty bed liner. With options like a larger cargo bed and power dump, you can get an E-Z-GO utility vehicle that comes with just about anything—except a corkscrew. Looks sharp, too.

THE FINEST UTILITY VEHICLES IN THE WORLD.
As shown on Cedarcrest Golf Course's 12th hole above, once the sod is stripped off the fairways, 4 inches of sand is laid atop new drainage tiles. At right is Cedarcrest's 3rd hole after construction.

By DOUG SAUNDERS

MARYSVILLE, Wash. — Strip the sod, lay down drainage lines and 4 inches of sand over the entire course and you've solved the shoulder season scramble in the Great Northwest. That's The World According to John Steidel.

A golf course architect, Steidel had used this procedure, minus the sod- stripping, on a couple of new courses but had never closed down a facility and completely rehabilitated it in this manner. That was until the opportunity came at the municipal Cedarcrest Golf Course here.

"The reason we did this," Steidel said from his Kennewick offices, "was that the financial success of a public golf course mostly concerns how successful you are in the shoulder season — March, April, part of May, and September and October.

The prime advantages of the sand solution, he said, are that the course drains quicker, stays firmer and allows for maintenance work to continue on a more regular basis."

Not all 100% sand greens "California"

By DR. MICHAEL J. HURDZAN

There seems to be a false notion that any golf green constructed of 100-per-cent sand is a California green. This is incorrect and I will explain why people have experienced such varying degrees of success with pure sand construction.

When someone tells me that they built a California green, the first question I ask is "Which lab did the testing to help you select your sand?" Nearly always I am told that no laboratory was used, so my second question is "Then, how do you know it is a California green?"

The point is that not all 100-per-cent sand greens are true California greens as defined in publication #21448, The Sand Putting Green Construction and Management available from: Publications Division Agriculture and Natural Resources, University of California, 6701 San Pablo Ave., Oakland, CA 94608-1239.

By definition, California greens are made of 100-per-cent sand that meets the following particle size distribution: 90 to 100 percent of particles with a diameter between 0.1 and 1.0mm; and 50 to 70 percent of particles with a diameter of 0.50 to 0.25mm. Angular to sub-angular shape is preferred. Any sand outside that range may work just fine, but it is techni-cally not a California green — it is a 100-per-cent sand green.

Twin Bridges opens for play; USGA Seniors visit a month later

DANVILLE, Ind. — Twin Bridges Golf Club, a unique environmental collaboration between Lohmann Golf Designs (LGD), Heritage Golf Management, Waste Management Inc. and Audubon International, has opened for play here outside Indianapolis. One month following a May 29 grand opening ceremony, Twin Bridges played host to USGA Senior Amateur qualifying.

Named for a pair of railway trestles that cross the property, Twin Bridges is owned by Waste Management, the rubbish disposal company which operates a landfill on another portion of the 800-acre property. Bob Lohmann routed the 18 holes so as to skirt the landfill completely.

His construction firm, Golf Creations, built the course with help from Heritage, which stayed on to manage the facility.

Twin Bridges was constructed with the utmost environmental sensitivity; it has already earned "Signature" status, the highest designation bestowed by Audubon International (AI). "The course is a real showpiece," said Ron Dodson, president of Sellkirk, N.Y.-based AI, a nonprofit organization that facilitates responsible golf course development and maintenance practices worldwide. "The work Bob Lohmann has done at Twin Bridges has been so tremendous. He wouldn't even authorize the clearing of site lines until we walked the parcel together. When we had, he went out of his way to maintain natural riparian corridors."

While the sensitive design and construction of Twin Bridges stand as considerable achievements Walshino deer have...
Twin Bridges
Continued from page 27
been sighted on the back nine), they take a
back seat to the layout itself. Lohmann has
created an exhilarating variety of golf holes
here: Existing ravines strategically frame
several fairways while others swoop down-
hill into more gentle, rolling terrain. "The
course looks like it has been here for years," said head pro Jeff Peters.
Indeed, Lohmann said the site’s environ-
mental sensitivity never hindered his design
team. "It was an opportunity, to tell you the
truth," said Lohmann, president and founder
of Marengo, Ill-based LGD and Golf Cre-
ations. "The owner was obligated to leave
many areas untouched, so we used those
areas to the advantage of the environment
and the golfer. Snake dens and other habitats
were left untouched, for example, which pro-
vides nice separation for the golf holes."
Because much of the site is gently roll-
ing and treeless, Lohmann incorporated an
off-beat series of mounds and depressions
to provide definition. Lohmann has also
created a unique grading scheme around
the putting surfaces through use of ex-
panded collars, depressions and various
bunker patterns, including old-fashioned
pot bunkers on the 15th. "It’s a different
sort of look," Lohmann explained.
"The effect is interesting: The expanded
collars make the putting surfaces look
larger than they are. And these chipping
areas invite all sorts of creativity around
the greens. If you miss, you can putt, chip
or hit a 3-wood like Tiger."

Another Maintenance Crisis?

Golf course maintenance is the largest source of
frustration for golf course owners/operators.
Control your costs and dedicate your time and energies
to making the rest of your operation more profitable.
Outsource your golf course maintenance to IGM.

Outsourcing Your Golf Course Maintenance To IGM Cures Your Biggest Headache.

IGM
Golf Course Maintenance Specialists
331 South Florida Avenue
Suite 41
Lakeland, Florida 33801
(941) 686-2376
Fax (941) 683-0455
www.igm.net

(800)413-5500
CIRCLE #121

You get absolutely perfect fairways...
— John Steidel

Sand solution
Continued from page 27
Steidel built with the sand method, hosted 160 rounds of
golf. Cedarcrest’s total: 60.
The call went out to Steidel for
his expertise, and he went to
work.
“We tried to correct all the
problems,” he said. “If areas were
draining well, we tried to
correct them. If areas were too
flat, we raised them and graded
them. We put drain lines down
and 4 inches of sand over the
entire course — from the edge
of the cart path to the far side of
the fairway.”
The fairways were then
hydroseeded and quickly estab-
lished a strong root system
in the sandy base.
One complication during the
procedure is connecting the new
drainage lines to the old ones
“so that they don’t weep out
and leave wet areas everywhere,”
Steidel said. “The two or three
problems they found in the last
year were drain lines that had
been cut and no one knew about
it.”
Every tee and 16 greens were
also rebuilt in the process.
The result of the renovation?
“You get absolutely perfect
fairways instead of fairways full
of stump holes that are impos-
sible to mow and holes 3 feet in
diameter and a foot deep where
the grass is 2 inches long in the
middle of the fairway,” he said.
Steidel said that in western
Oregon and Washington super-
intendents top dress the fairways
to improve drainage. His method
is an alternate.
“Do you close down and put in
the 4 inches of sand, or do you
put in drainage lines and top
dress for three or four years (and
that assumes your course is in
fine condition to begin with)?”
he said. “What we’ve done is a
good solution.”

“...I was proud of the town that
they had the courage not only to
close the course to do the needed
work, but to do everything pos-
sible to address all of the prob-
lems at once,” Steidel said. “The
total cost of $3 million was close
to the cost of building a new
course, but they saw the value of
making the effort.”
Cedarcrest was closed in May
1996 and reopened in August
1997. Upon reopening, the city
could increase green fees from
$14 to $25 because it offered a
better product. In its first year
of operation the city has seen
an increase of $380,000 in rev-
ences.
Unlike the USGA recommendation, there are no performance guidelines for such things as infiltration or hydraulic conductivity rates, percentage of capillary and non-capillary pores, or coefficients of uniformity (CU). Some see this as a weakness, but I do not. I actually see it as a strength because it gives you the opportunity to use locally available sands and amend them to whatever performance criteria you want. "Designer root zones" is what one distinguished soil scientist calls them. Allow me to explain my reasoning.

To begin with, you should realize that the turf industry has much to learn about root zones and how they perform. It is an evolving body of knowledge. What we think we know today may prove to be wrong tomorrow.

As an example, I cite Dr. Ed McCoy's work at Ohio State University that preliminarily concluded that California greens construction drains down slower than the USGA green construction method under saturated, experimental conditions. This unexpected finding has puzzled some people who always thought California greens were best drained.

Of what practical significance all of this is has yet to be determined. With all of the confusion about what works and what doesn't, how should you decide on which designer root zone is best for you?

I suggest a simple three-step process. Step one: Determine the source of your irrigation water and do some fairly in-depth testing concerning dissolved materials and suspended colloidal particles. If it is at all out of the ordinary, I would suggest sending along five gallons of that water to the sand-testing lab along with your sand samples so they can do sand selection using your irrigation water. Believe me, this can make a big difference in long-term performance.

Step two: Choose which turfgrass you are going to use on the greens and the possible stresses that may be aggravated by the quality of the irrigation water. For instance, if you choose an upright variety of bentgrass for the mid-South, and you find the irrigation water will be effluent that has fairly high salt content, intuitively this should cause you some alarm—heat, mid-South, salty water, mid-summer.

Your first choice would be to change the source of water to fresh water. But assuming you cannot, should you change to Bermuda grass putting turf which may better endure those stresses, or go to a very open root-zone architecture?

Or let's suppose you are on a course in the Northeast that wants to use one of the new, very fine-blade, very dense, upright bentgrasses, and the irrigation water is perfect and abundant. What material will you use to top dress these greens, that can get down into the very dense canopy, but yet not cause a perched water table by layering fine top dressing over a coarser root zone? In this case, the turfgrass is determining the top dressing, which is then dictating the root zone.

In these and many other examples the correct answer may be "designer root zones."

Step three: Select the best root zone, given the information you found in step one and two.

California greens or sand modified with organic or inorganic amendments give you those options and a wide range of flexibility.

How do you determine which method may be best suited for you? The answer is to test and study, ask questions and listen, and deal with a testing laboratory that understands and endorses various methods of green construction and cares about your situation. Stay away from the lab that seems to know about only one or two ways to build greens, and that simply dismisses any idea of a "designer root zone."

This lab may do just fine for routine and conventional testing, but lacks the expertise to find the method best for your situation. Of course, I recommend an USGA-certified lab, but don't rely on that certification alone. If you need more help, talk with me personally.

Lastly, I again suggest building your own test plot. Try out what seems to be your best options and compare their results. Be bold and test the limits of a concept, not just the middle ground. Remember, this is soil science, not rocket science.
Dick Bator, Tom Tanto form allegiance

By MARK LESLIE

LENOX, Mass. — Long-time golf course superintendent and turfgrass advisor Dick Bator and Tom Tanto of Tanto Irrigation & Golf Course Construction have formed an allegiance to work in the United States and abroad.

“We’re separate but in partnership,” said Bator from his office here outside Pittsfield. “We will come in as a team. I’ll spec the grasses and grow-in requirements and hire a superintendent to oversee construction. Tom will install irrigation and build the course.

“We can offer the whole package other than the architect.”

“We are entering a different phase of our life,” said Tanto of his firm, which has been in business for 29 years, building 12 golf courses and installing irrigation on another 300. “I’m looking forward to it, I think it will be a lot of fun.”

Bator has been the superintendent at Congressional Country Club, Pine Valley Golf Club and Atlantic City Country Club and once before operated a consulting service. He went to Atlanta Country Club in November 1996, prepped the course for the USGA 1997 Women’s Mid-Amateur, and left last January to begin working full-time as a consultant.

Tanto, he said, is one of the best respected irrigation consultants in the country. The first time I saw one of his jobs he was at Pine Valley and they held the Walker Cup. I have never seen a course in better shape. His reputation of getting golf courses in shape is good and he has a lot to offer.

Tanto said his company’s normal workload can handle a couple of course constructions and nine irrigation projects at a time.

Bator said the tandem has prospects in England, Ireland, Germany and Sweden as well as the United States.

Bator’s company, Golf Course Turfgrass Advisor, has a mailing address of P.O. Box 564, Lenox, Mass. 01240; phone 413-499-3395.

Tanto Irrigation & Golf Course Construction is located on Salsburg Road, Murrysville, Pa. 15668, telephone 412-793-1440.

Cinnabar Hills opens for play in San Jose

SAN JOSE, Calif. — Fresh off his renovation work at Los Angeles Country Club, golf course architect John Harbottle III saw three nine-hole layouts unveiled here on Aug. 15 when Cinnabar Hills Golf Club opened for play.

The first upscale public course to open in Greater San Jose in 30 years, the club boasts The Canyon, The Lake and The Mountain nines. Harbottle carved the holes out of the hills and valleys of the Calero region.

Four sets of tees make the course playable for all levels of golfer. The facility also offers three practice putting greens, a chipping area and grass tee driving range.

Cinnabar Hills’ clubhouse is home to the Brandenburg Historical Golf Museum.

HILLS’ PEVELY FARM OPENS

ST. LOUIS—The site of a historic dairy farm now shares its location with St. Louis’ newest upscale public golf course. Pevely Farm Golf Club, about 30 minutes west of downtown St. Louis, opened in early June. Architect Arthur Hills designed the 18-hole regulation course on what was once Pevely Dairy Co.’s farm.
McBroom transforming St. Andrews, N.B.'s Algonquin Golf Course

By PETER BLAIS

ST. ANDREWS, New Brunswick, Canada — While Thomas McBroom's Crowbush Cove was receiving worldwide accolades during the recent Export "A" Skins Game on Prince Edward Island, the Canadian designer was busily applying his architectural hand to another Maritimes layout, the Algonquin Golf Course here at St. Andrews-By-The-Sea.

Canadian Pacific operates the Algonquin, including the hotel, for the provincial government. First opened in 1894, Donald Ross put his hand to the design in the 1920s. The course has been significantly altered over the years, according to head professional Lindon Garron.

The current facility includes a regulation 18-hole and an executive nine-hole layout.

McBroom is condensing that down to a single 18-hole course that takes advantage of the expansive views of Passamaquoddy Bay and New Brunswick's rocky coast. The ocean will be visible from almost every spot on the course. The signature hole may eventually be the par-3, 12th, which drops approximately 75 feet from the tee down to a green perched on the rocks no more than 50 feet from the Atlantic Ocean.

The first nine is scheduled to open next June and the second nine a year later. A state-of-the-art practice facility will accommodate an expanded teaching program.

"The new layout will allow us to do a lot of the things we've dreamed about in terms of tournaments, tours and golf schools," Garron said.

Garron said the renovation will cost approximately $6.7 million. The new Rain Bird irrigation system will apply water supplied by the community's public water system.

The government and local environmental groups have been very supportive of the project, Garron said.

During the earthmoving process, builders came upon a midden, an ancient Indian refuse heap consisting of clam and mussel shells the native Passamaquoddys had piled by the shore hundreds of years ago. CP officials contacted the Passamaquoddy tribal leaders, who agreed to allow the midden to be incorporated into the course design as long as a marker was placed near the site informing golfers of the Passamaquoddy's contributions to the local culture.
Nebraska supers help junior golf course

LINCOLN, Neb. — Thanks to the efforts of local golf course superintendents and their corporate partners, the Jim Ager Memorial Junior Golf Course here has undergone a much-needed facelift. The Nebraska Golf Course Superintendents Association (NGCSA), its professional, commercial and corporate partners, the Jim Ager Golf Course is a "junior" course. Located in the center of Lincoln, the par-27, nine-hole layout hosts nearly 35,000 rounds per year — mostly children 7 to 15.

The new green, which tripled the area for lessons and warm-up, was designed by Grant Wencel and construction was supervised by a crew from Lincoln-based golf course builder Landscapes Unlimited, Inc. Construction labor for the project was provided by the Nebraska Student Chapter of the GCSAA, and Lincoln-area superintendents and their crews.

From preferred starting times and special "Juniors Only" tournaments to an extensive golf lesson program, Ager Golf Course is almost totally focused on the needs of junior golfers. Though adults may play the course, they usually need to be accompanied by a junior.

Hidden Creek GC targets beginners

SELLERSBURG, Ind. — Hidden Creek Golf Club has announced plans to build Hidden Creek Golf Academy, a $500,000 practice center for juniors and adult beginners, at its 18-hole course just north of Louisville.

"We want to be the facility that juniors and adult beginners think of when they decide they want to learn the game of golf," said Todd Cunningham, Hidden Creek's operations manager and a partner in Kirchdorfer & Cunningham, Inc., Golf Course Management, which owns the facility.

Cunningham said the facility will also enable Hidden Creek to expand and enhance its already active youth program. The club participates in the national Sticks for Kids program, which is sponsored by the Golf Course Builders Association of America.

Work to develop the academy will nearly triple Hidden Creek's number of practice tees to 50 or more, including all-weather tees with mats. The existing lighted practice area will be enhanced with more target greens and practice areas for sand shots and chipping. More putting greens will also be installed.

David Pfaff is designing the academy, and Cunningham said work on the facilities will begin construction this fall. It is expected to be ready by next spring. Cunningham emphasized that the work will not interfere with Hidden Creek's regular golf course and driving range operations.

Construction will be handled by Golf Development Construction, Inc., which is headed by Cunningham’s partner, Jim Kirchdorfer.

Cunningham said the new facilities will enable Hidden Creek's staff of PGA golf pros to conduct a continual program of instruction for beginners to advanced players.

"There will always be something going on," he said, "with specific clinics for every aspect of the game, from driving and putting to iron shots and sand shots.

Hidden Creek, a public course with optional memberships, was developed by Kirchdorfer & Cunningham and opened in the spring of 1992.
Nickels' Korean projects creep toward completion

By MICHAEL LEVANS

SEOUL — Nickels Golf Group's recent activity may be a sign that golf is alive and well in South Korea and will continue to be so when the current economic cloud clears.

Over the last year, Doug Nickels was commissioned to evaluate existing, and create original course designs for three projects being sculpted on the sides of the mountainous Korean landscape. One project is near completion, while the other two are scheduled to open in full before 2000.

Nickels recently oversaw the near completion of Mauna Ocean Resort near Kwangju, South Korea's ancient city. "Over the winter, this may have been the only golf course construction project going in Korea. The shaper left about a month ago," said Nickels.

Built by Kolon Development Co., a subgroup of the Kolon Group, a textile and apparel company, Mauna offers ocean views from gentle, rolling hills — uncharacteristic of the typical Korean golf landscape.

Kolon plans to add condominiums and is considering the construction of a high-tech theme park on the site.

According to Nickels, Kolon decided to push ahead with course completion through the economic turmoil due to its proposed opening date. "We were close enough to finishing and the owners had the foresight that everybody will be coming out of this crisis in a year or two, right when then they would be ready to open."

Club 200, an 18-hole facility one hour northeast of Seoul, is Nickels' second Korean project. The owners plan to limit membership to 299.

"The course has one hole left to shape, so we're waiting to see when we can finish," said Nickels. "Membership sales have pretty much stopped, which means capital expenditures have also stopped. The entire course is planted with the exception of two greens and one fairway. The 50,000-square-foot clubhouse is half done."

"It's in a gorgeous valley," said Nickels. "There are some mountainous holes then there are some holes that blend together in a big bowl. The clubhouse will overlook six or seven holes."

Club 200 plans to open nine holes this year and nine holes in 1999.

The third project is Tong Yang Country Club, 27 holes located one hour south of Seoul near Yong-In, a town which already has several golf courses.

At this time, all rough shaping is complete and irrigation is half done. However, construction here has been put off until late summer, early fall. "The goal here is to stabilize what we have until work picks up," said Nickels.

Continued on page 34

---

The best overcoat you'll buy this winter

Protect your valuable plants with the best winter overcoat you can buy — Transfilm Antitranspirant.

- Overcoat trees and ornamentals to protect from winter dessication.
- Overcoat fall transplanted trees and shrubs for sure success.
- Overcoat fungicide applications on greens, tees and other highly managed turf sites.

ALWAYS READ AND FOLLOW LABEL DIRECTION

© 1999, PBI/Gordon Corporation. TRANSFILM® is a registered trademark of PBI/Gordon Corporation. 1/03/98

Get Attached To Great Top Dressing.

You choose the truck— Jacobsen, Cushman, Toro or John Deere — we'll help you turn it into a quality top dresser. You'll top dress precisely and uniformly with the best applicator system in the business, a Turfco Mete-R-Matic? Its 19 cubic foot hopper coupled with your truck's high maneuverability speeds top dressing around tight areas and greens. Let us show you how.

FOR DEMO CALL 1-800-679-8201

TURFCO

Turfco Manufacturing Inc.
1655 101st Avenue Northeast, Minneapolis, MN 55449-4420
612/785-1000 Fax 612/785-0556
Ristola scores environmental victory in Germany

EMSTAL, Germany — A success story has been created here on the banks of the River Ems by architect Tony Ristola in the shape of an extension to the Lingen Golf Course.

The extension was vehemently opposed by environmental group Bund für Umwelt und Naturschutz Deutschland e.V. (BUND). The resulting course, Ristola’s second in Germany, led BUND to announce: “We admit this: We made a mistake. [The project] is now a model for the integration of a sports park in a protected area.”

The flat site was covered with 7-foot-high stands of corn. “The second site visit got my heart racing with excitement,” Ristola said. “A property bordering the course gave me the feeling that something truly special could be created.”

To the southeast Ristola stumbled upon a 28-acre natural reserve of sand dunes, hillocks and hollows. The way forward for the Lingen extension suddenly became crystal clear — “To restore the barren farmland to a version of it’s original beauty.”

Test borings on the property revealed differing varieties of sand throughout, allowing Ristola to plan for extensive areas of exposed sand and sandy waste.

Course construction began on a Tuesday and by the Friday BUND had called in the police and work was halted. A missing permit was finally granted and work recommenced in an atmosphere of hostile tension. Ristola can now laugh at the situation which confronted him, but at the time, “No one was happy; the club, contractors, BUND or myself.”

All interested parties met for a site visit and Herr. Claus Afles of BUND expressed his displeasure at the prospect of a “glorified graveyard” of flat, green ex-cornfield.

It was here that Ristola made the breakthrough in communication. “I pointed to the eroded dunes on the nature reserve and explained that we would have vast expanses of open sand with grassy islands and native plantings. Herr. Afles expressed his approval and I added that there would be more than he could possibly imagine.”

A much healthier communication line was opened up and construction continued with the support of both the city authorities and BUND itself.

At the end of May the finishing touches were applied. BUND cited the following aspects as being crucial to its cooperation: That the new section of golf course (10 holes) has the dunes-like character of the Ems river banks; that a wide corridor between the course and the reserve be left fallow; that the underground pipe drainage (in place from agricultural use) be replaced with creek and wetland drainage system; that only native deciduous trees are planted; that a 1.5-km public footpath should run through the new section of the course.

The flat site was covered with 7-foot-high stands of corn.

We’d like to show you the weeds PENDULUM controls. But they never showed up.

T he reason they never showed up? Because PENDULUM herbicide is a highly effective preemergent turf herbicide. Compared to the competition, PENDULUM demonstrates a higher level of control across a broader spectrum of weed species. With PENDULUM, weeds won’t ever see the light of day. For the PENDULUM herbicide distributor nearest you, call: 1-800-545-9525, Ext. 1676.

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Crabgrass</th>
<th>Goosegrass</th>
<th>Foxtail</th>
<th>Poa Annua</th>
<th>Oxalis</th>
<th>Spurge</th>
<th>Henbit</th>
<th>Chickweed</th>
</tr>
</thead>
<tbody>
<tr>
<td>PENDULUM</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Barricade*</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Dimension*</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Team*</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Renstar*</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Surflan*</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Level of control
- ✔ Medium
- ✔ Medium-High
- ✔ High
- Not registered

© Registered Trademark, American Cyanamid Company © 1998. Always read and follow label directions. **The Power of Cyanamid Pendimethalin**

Nickels project

Continued from page 33

Developed by Tong Yang Leisure Co., Tong Yang Country Club is a good example of just how huge Korean golf course construction projects can be. Being a semi-mountainous country, Korea’s flatter land in the bottom of the valleys is dedicated to agriculture or urban growth. Golf, and other recreation, is relegated to the mountains.

Tong Yang was carved out of a mountainside following the movement of 7 million cubic meters of earth and rock to accommodate not only the course, but access roads and other construction amenities.

“Golf courses are huge civil engineering projects in Korea,” said Nickels. “Our involvement has been to work with the Korean architects, who are basically civil engineers. We lend our expertise in the design and sculptural side. They move the millions of yards, we work with them to sculpt it.”

GOLF COURSE NEWS
The 6900-yard course has been in operation since 1927. The city of Dunedin, Fla., acquired a Donald Ross-designed, 18-hole layout. Wilson Golf Group, a White Bear Lake-based company, named Greg Stand director of operations Tierra Del Sol Country Club, an 18-hole public facility in Stillwater, Minn.; Adobe Creek in Fruita, Colo.; and Chipeta in Grand Junction, Colo.

Rosmarin assumes Hyatt golf reins

BY PETER BLAIS

CHICAGO — Hyatt Hotels Corp., which operates 23 courses in the United States and Caribbean, has hired former Golden Bear Golf Centers executive Gary Rosmarin as the hotel chain’s director-golf operations. Rosmarin will oversee management, marketing, operations and development of Hyatt’s golf facilities. Hyatt has Caribbean golf operations in Aruba, Grand Cayman and Puerto Rico. Its U.S. facilities are located in Scottsdale, Ariz., Indian Wells, Calif., Vail, Colo., Orlando, Fla., Incline Village, Nev., Hilton Head, S.C., San Antonio, Texas, Koloa, Kauai and Lahania, Maui, Hawaii.

“My responsibilities deal with specific operational issues as well as new golf development and remodeling of some of our existing properties,” said the Tulane and Florida State University graduate.

“We’re getting ready to make a significant investment in Puerto Rico to bring Dorado Beach and Cerromar back to the wonderful condition they were in many years ago and make them the jewels of the Caribbean. When people traditionally thought about the Caribbean and golf, they thought about Puerto Rico and Dorado Beach as the places to go. We’re also working on new resort properties on St. Lucia and St. Kitts.”

Continued on page 36

Meditrust realigns management staff

Cobblestone Golf to benefit

NEEDHAM HEIGHTS, Mass. — The Meditrust Companies announced that Abraham Gosman has resigned from the positions of chairman of the boards, chief executive officer (CEO) and director and that Thomas Taylor has been appointed interim chairman. David Benson, president of Meditrust Corp. since 1991, will serve as interim CEO.

Over the next 60 days, Meditrust anticipates filling the chairman and CEO positions, reviewing and approving a modified investment and operating strategy for The Meditrust Companies, and selecting an appropriate corporate structure through which to conduct the business activities in response to the recent paired share REIT legislation.

Said Gosman: “Following the successful completion of the acquisitions of La Quinta Inns, Cobblestone Golf Group and Santa Anita over the past nine months, I feel that I have accomplished my mission in assembling these premier assets. The Meditrust Companies is no longer just a healthcare REIT but has evolved into a business that requires complex capital markets and operating expertise on the part of whomever serves as the chairman.

Continued on page 36
Continued from page 35

and chief executive officer."

With the addition of La Quinta’s hotels and Cobblestone’s golf course facilities together with its healthcare portfolio, The Meditrust Companies owns approximately 800 health care, lodging, and golf/entertainment-related facilities and employs more than 12,000 people.

Cobblestone recently acquired Carolinas Golf Group, a Raleigh, N.C., company that operates seven courses on the East Coast.

Rosmarin
Continued from page 35

A 20-year golf industry veteran, Rosmarin spent 14 years working for Golden Bear. He ran the Nicklaus/Flick golf schools, was involved in public golf course development, served as president of Golden Bear Golf Centers and was vice president of Jack Nicklaus Golf Management. He most recently served as chief executive officer of Greylock Associates, a management consulting firm where he recruited such notables as Nicklaus and NBA coach Lenny Wilkens to be featured in a business-to-business video titled "The Art of Coaching in Business."

Meditrust/Cobblestone

Continued from page 35

and chief executive officer."

With the addition of La Quinta’s hotels and Cobblestone’s golf course facilities together with its healthcare portfolio, The Meditrust Companies owns approximately 800 health care, lodging, and golf/entertainment-related facilities and employs more than 12,000 people.

Cobblestone recently acquired Carolinas Golf Group, a Raleigh, N.C., company that operates seven courses on the East Coast.

Rosmarin
Continued from page 35

A 20-year golf industry veteran, Rosmarin spent 14 years working for Golden Bear. He ran the Nicklaus/Flick golf schools, was involved in public golf course development, served as president of Golden Bear Golf Centers and was vice president of Jack Nicklaus Golf Management. He most recently served as chief executive officer of Greylock Associates, a management consulting firm where he recruited such notables as Nicklaus and NBA coach Lenny Wilkens to be featured in a business-to-business video titled "The Art of Coaching in Business."

Meditrust/Cobblestone

Continued from page 35

and chief executive officer."

With the addition of La Quinta’s hotels and Cobblestone’s golf course facilities together with its healthcare portfolio, The Meditrust Companies owns approximately 800 health care, lodging, and golf/entertainment-related facilities and employs more than 12,000 people.

Cobblestone recently acquired Carolinas Golf Group, a Raleigh, N.C., company that operates seven courses on the East Coast.
ClubCorp/Nicklaus

Continued from page 35

letter of intent to build the private club and 18-hole course has been signed with Synergy Development, the developer of the 1,000-acre master-planned community. Groundbreaking is anticipated for this fall.

Approximately 50 percent of the joint venture’s projects will be the construction and development of new private golf and country clubs; 30 percent, daily-fee courses; and 20 percent redesign and financing of existing clubs and courses.

“The Bear’s Best” courses will consist of 18 holes selected by Nicklaus from among the 160 courses designed worldwide by Nicklaus Design. Each project will feature a different 18-hole selection, depending upon the location, climate and terrain. Specific holes for the initial projects have not been determined. Although these courses will be open for individual play, the joint venture plans to focus its marketing efforts on attracting corporate, association, convention and charity tournaments and outings. The venture also will provide turnkey re-design, financing and management to member-owned clubs and independently owned courses.

“I personally will be involved in the selection of holes because nobody knows these courses like I do,” Jack Nicklaus said. “The venture with Robert Dedman and ClubCorp is a great fit between our two companies.”

In addition to Kansas City, targeted areas for the new courses include Atlanta, Dallas, Las Vegas, Orlando, Palm Springs, Calif., Phoenix and San Antonio.

Golden Bear International and ClubCorp previously have been associated in golf projects, notably the Jack Nicklaus/Jack Nicklaus II Signature courses at Aspen Glen Club in Carbondale, Colo., and the Golf Club at Indigo Run on Hilton Head Island, S.C. Both clubs are owned and operated by an affiliate of ClubCorp. The recent completion of these two courses prompted the two companies to explore a closer relationship, officials said.

Both organizations will continue to pursue and grow their respective core businesses.

Nicklaus woes

Continued from page 1

the status of construction projects and made false statements about the unit’s revenue, costs and profits to executive management.

Golden Bear then restated a loss of $24.7 million, or $4.49 a share, for the year ended Dec. 31, 1997. The company originally reported a loss of $2.9 million, or 53 cents a share, on revenues of $67.7 million.

The company said it expects to report losses of up to $17 million for the six months ended June 30, due to the ongoing Paragon construction projects and operations of Golden Bear Golf Centers.

After Golden Bear made its announcement, shares of Golden Bear fell 14 percent, or 62 cents, to close at $4 on the Nasdaq.

Shares of Golden Bear Golf were then halted by NASDAG and a Class Action has been commenced in the United States District Court for the Southern District of Florida against Golden Bear Golf, Inc. and certain of its officers and directors for violations of the federal securities laws.

In a recent statement issued by Dick Bellinger, president and chief executive officer of Golden Bear, said: “We are outraged at the actions of former management of Paragon. We have moved immediately to rectify this situation, and are working closely with our customers on our current projects to assure the quality and timely completion of our projects.”

Golden Bear said it’s talking with several construction firms to explore options, which could include joint ventures or alliances with Paragon. The company said it has no plans to sell Paragon.

However, not all is doom and gloom for the Bear. Nicklaus’ private company, Golden Bear International, has just announced a joint venture to own and operate an estimated 35 new courses throughout the United States with Dallas-based Club Corp.

Golden Bear Inc., despite its acknowledged losses, has been growing rapidly, with revenues reaching $56 million in 1997.

MANAGEMENT

Protecting it starts with Thalonil.®

Make Thalonil® the number one product in your disease management program. In university studies — and on courses like yours — Thalonil has been proven time and time again. No other chlorothalonil delivers better — or broader — disease control. 

So start with Thalonil for dependable, broad-spectrum control. Then add other fungicides to your program as needed to control specific disease problems affecting your course. Your return will be an effective, efficient disease management program that will keep your course looking like a million bucks.

This season, make your disease management program pay top returns with Thalonil from Terra. You’ll have the right fungicide, the right people and the right results.

Terra

Terra Industries Inc.
P.O. Box 6000
Sioux City, Iowa 51102-6000
1-800-288-7353
www.terraindustries.com

Working with you.
Alfonso
Continued from page 35
this sounds silly, but worked. I thought they would get a laugh out of me trying to pronounce their names without their assistance. I was even bold enough to call them to our front counter over the PA system, just like everyone else. Lucky for me, they loved it. I also served them "Mini dogs of Benihana". I would throw little hot dogs into the air over my flat grill in the snack bar and then, using a Japanese knife, I would slice them in half in mid-air. They thought that was hilarious. You see, even though we couldn't communicate fluently in each other's language, we established a positive rapport which they enjoyed and which brought them back week after week. They never knew what I was going to do next.

In other words, I didn't and my staff didn't, just, "Takea Veesa". We were not just greens fee takers. However, let's be quite frank. We all know greens fee takers are prolific in our industry. You know the type. These are human beings who stand behind counters in golf shops across America taking greens fee dollars and doing little else. They have little or no interaction with their customers.

And to my dismay, many owners and managers allow this to happen. When asked why they allow this behavior, they say, "he or she is dependable and honest and that's good enough for me".

I would like to challenge you at this point by saying, it shouldn't be good enough for you. Sure, you're taking in greens fees, but, you're missing a great chance to endear your customers to your course. I know a person who says, "If all you want is a greens fee taker, get a box with a slit in the top and a lock on the side. Now, that's a greens fee taker."

We bill Kimberling Golf Course as the most entertaining and challenging nine holes in Missouri. If you read my column regularly, you know we do a lot to literally get customers laughing before they ever hit their first shot. The course takes care of the "challenging" claim all by itself. It's a 2100-yard, par-34. And, believe it or not, you cannot see the greens from the tees on any of the 7 par 4's.

Now, because Kimberling City is a resort community near Branson, Mo., we see many first-time guests. I knew from the start that I had to create something innovative to help our guests get around our course without shooting a million. I had to create something for my staff and me to help them find their way around our course.

Thus was born color-coded landing area circles. These landing-area circles serve to guide our first-time golfer in both direction and distance off every tee. The circles are noted on the score card and inside each circle I have placed the exact yardage information from the middle of the red tee to the middle of the landing area.

Our landing-area circles are 50 feet in radius, irrigated and mowed differently than the rest of our course. All first circles have a yellow pendant flag in the center, second landing area circles have a gold pendant in the center and our third landing area circle on No. 7 has a reddish orange pendant at it's center.

I have a sample of our system on the Cayman practice range which is easy to see from our golf shop. This gives our staff a chance to communicate valuable, helpful information to our first-time customers right at the front counter. From the second they walk in, we are making them laugh and helping them out. I believe that taking this approach communicates to them, very clearly, that we are not just here to "Takea Veesa."

Our little landing-area circle explanation says we appreciate them coming to see us and we're trying to do all we can to help them have a great time. Dependability and honesty are essential characteristics for any employee. But, with your help, they can do and be much more.

The molecule on this page is where green really begins: with the sustaining power of the world-class nitrogen source isobutyldiene diurea. And Lebanon Turf Products is the only company that brings it to you in the superior form of IsoTek31: a high quality, homogeneous fertilizer that ensures your turf uniform and controllable growth.

Since Lebanon Turf Products introduced IsoTek31 to the industry, turf-minded superintendents have discovered for themselves its unique capability for swift green-up and dynamic restoration of turf vitality. Fairways and greens alike benefit from its controlled nitrogen release through hydrolysis and microbial activity, regardless of soil temperature or type.

So if you're looking for truly superior turf, look no further than IsoTek31 in homogeneous greens or fairway grades. Call Lebanon Turf Products at 1-800-233-0628 for more product information.

TO YOUR TURF, THIS IS A POWER LUNCH.

I would like to challenge you at this point by saying, it shouldn't be good enough for you. Sure, you're taking in greens fees, but, you're missing a great chance to endear your customers to your course. I know a person who says, "If all you want is a greens fee taker, get a box with a slit in the top and a lock on the side. Now, that's a greens fee taker."

We bill Kimberling Golf Course as the most entertaining and challenging nine holes in Missouri. If you read my column regularly, you know we do a lot to literally get customers laughing before they ever hit their first shot. The course takes care of the "challenging" claim all by itself. It's a 2100-yard, par-34. And, believe it or not, you cannot see the greens from the tees on any of the 7 par 4's.

Now, because Kimberling City is a resort community near Branson, Mo., we see many first-time guests. I knew from the start that I had to create something innovative to help our guests get around our course without shooting a million. I had to create something for my staff and me to help them find their way around our course.

Thus was born color-coded landing area circles. These landing-area circles serve to guide our first-time golfer in both direction and distance off every tee. The circles are noted on the score card and inside each circle I have placed the exact yardage information from the middle of the red tee to the middle of the landing area.

Our landing-area circles are 50 feet in radius, irrigated and mowed differently than the rest of our course. All first circles have a yellow pendant flag in the center, second landing area circles have a gold pendant in the center and our third landing area circle on No. 7 has a reddish orange pendant at it's center.

I have a sample of our system on the Cayman practice range which is easy to see from our golf shop. This gives our staff a chance to communicate valuable, helpful information to our first-time customers right at the front counter. From the second they walk in, we are making them laugh and helping them out. I believe that taking this approach communicates to them, very clearly, that we are not just here to "Takea Veesa."

Our little landing-area circle explanation says we appreciate them coming to see us and we're trying to do all we can to help them have a great time. Dependability and honesty are essential characteristics for any employee. But, with your help, they can do and be much more.

The molecule on this page is where green really begins: with the sustaining power of the world-class nitrogen source isobutyldiene diurea. And Lebanon Turf Products is the only company that brings it to you in the superior form of IsoTek31: a high quality, homogeneous fertilizer that ensures your turf uniform and controllable growth.

Since Lebanon Turf Products introduced IsoTek31 to the industry, turf-minded superintendents have discovered for themselves its unique capability for swift green-up and dynamic restoration of turf vitality. Fairways and greens alike benefit from its controlled nitrogen release through hydrolysis and microbial activity, regardless of soil temperature or type.

So if you're looking for truly superior turf, look no further than IsoTek31 in homogeneous greens or fairway grades. Call Lebanon Turf Products at 1-800-233-0628 for more product information.
COLUMBIA PARCAR HIRES WITHIN
REEDSBURG, Wisc.—Columbia ParCar, a manufacturer of golf cars, announced several promotions within its home office. John Cnokrak, vice president of sales and marketing for the past year, has been promoted to executive vice president. Tom Smita has been promoted to vice president of operations. Duke Cramer, a veteran of 26 years with Columbia ParCar, takes over the newly created position, manufacturing manager. Columbia ParCar has also appointed C. Ward Utterbach as its sales/marketing support manager. Utterbach will be responsible for assisting the technical, sales and marketing support groups of Columbia ParCar in order to achieve their long range plans.

KEYSTONE SOUTH EXPANDS IN FLORIDA
ATLANTA — Keystone South, a manufacturer of concrete modular retaining walls, has appointed Sam Riddell as sales representative of Keystone Retaining Wall Systems for Central and Northern Florida. Riddell will be based in Orlando. The company has also established a manufacturing and sales agreement for Keystone Retaining Wall Systems with Florida Rock Industries, Inc. Russ Hinote will be the sales representative covering the greater Tampa Bay-St. Petersburg area.

GROWTH PRODUCTS ADDS
HATTORI TO LINEUP
WHITE PLAINS, N.Y.—Growth Products Ltd., a producer of liquid fertilizers, announced the hiring of Kevin Hattori as its new director of public relations. Hattori's responsibilities will include the identification and pursuit of potential publicity opportunities for the company. He will also oversee all copywriting and function as the company's liaison with the media, industry associations, and universities.

KING SAFETY PROMOTES KIRK
ST. CHARLES, Mo.—King Safety Products announced the promotion of Douglas Kirk from sales manager to vice president and product manager. A company veteran, Kirk joined King in 1989 as a sales representative. His 27-year career includes positions in retail sales, market research and advertising. In his new position, Kirk will be responsible for four key areas at King. He will head up research & development for new and existing products, oversee all product testing, give company-wide technical support, and act as liaison with Underwriters Laboratories Inc.

TEXTRON TURF CARE AND SPECIALTY PRODUCTS SPONSORS TURF MANAGERS SEMINAR
RACINE, Wis.—A group of more than 30 top graduating turf students from colleges and universities throughout the U.S., Canada, Australia and New Zealand recently attended Textron Turf Care and Specialty Products' Future Turf Managers Seminar. "These students represent a bright future for the golf course maintenance industry," said president Phil Truesdale. "They are knowledgeable, ambitious, and eager to put their education to work on golf courses around the world." The three-day event included presentations and panel discussions dealing with current and future issues of importance to golf course superintendents.

Foley takes Neary
MINNEAPOLIS, Minn.—The Foley Companies, the parent company of sharpening and grinding equipment manufacturer Foley United, has acquired Elk River, Minn.-based Neary Manufacturing Inc. including the Neary turf maintenance equipment division, related patents, manufacturing and distribution.

According to Jim Letourneau, president of Foley United, the deal marks a merger of technologies, yet, logistically, will remain transparent to the customer base.

"Foley Companies owns both of these lines now, which equates to over half of the market share," said Letourneau. "The customer will see no change as far as who they're dealing with and where they're calling. Both lines will be marketed in the marketplace through independent distribution and we're maintaining a Neary sales force and a

EPA to reassess existing pesticide tolerances
LAWRENCE, Kan.—The Golf Course Superintendents Association of America (GCSAA) is seeking relief from the Food Quality Protection Act (FQPA), which changes the method of determining human exposure to chemicals.

The legislation, which became law in August 1996, is to be implemented by the Environmental Protection Agency (EPA). Prior to enactment of FQPA, risk from pesticide use was measured only from residues from dietary exposures. Under FQPA, the EPA must consider the aggregate exposure for each pesticide, including non-dietary means (i.e., residential, lawn and garden uses).

While the previous legislation required a separate evaluation for each pesticide, the law now demands that the evaluation include all those pesticides sharing a common mechanism of toxicity.

Under FQPA, the EPA must reassess all existing pesticide tolerances (more than 9,700) within the next 10 years. Concerns for the golf course maintenance industry include a plan to eliminate all organophosphates (OPs) by August 1999.

OPs currently offer broad-spectrum control of infestations of mole crickets, soil-bodied larvae, fire ants and other insects that can mean economic and environmental disaster for a golf course.

"We do not oppose any legislation that removes a threat to human health as long as it is based on sufficient data," said GCSAA President George Renault. "Our concern is, the EPA is using 'default assumptions' in risk measurements that are often overly conservative, inaccurate and unreliable. Under provisions of the law, the EPA can use 'data-call-in' to acquire the actual scientific information, but indications are the agency will ignore that option. The potential consequences are enormous."

According to Renault, golf course superintendents support the EPA's efforts to find alternatives to organophosphates. However, arbitrary elimination would be counter-productive if it results in the need to use less-effective products in greater amounts, thereby increasing risks to the environment.

Renault also indicated pesticide use would be better controlled by local authorities and the golf course itself.

NEW PRODUCT OF THE MONTH: SMITHCO'S 3-IMPLEMENT GREEN STAR
WAYNE, Pa.—The Green Star RBS System, for the rolling, brushing and spiking of greens and turf, is now available on all Smithco bunker rakes.

This system also mounts quickly and easily on Toro Sand Pro and Rosomes/Cashman bunker raking units. The Green Star offers a complete choice of implements to meet all types of turf requirements. The spiker implement relieves the compaction of the soil and allows water and air to reach the turf's roots, at the same time penetrating to the proper depth for drainage. The brush unit incorporates top dressing quickly and evenly, and can also be used to smooth all types of soil surfaces. The roller system is mounted behind the bunker rake's wheels, in order to deliver after-the-wheel smoothness, for true and fast greens and turf. All three implements mount with Smithco's exclusive Quad-Pivot hook-up system, designed to allow maximum flexibility and conformity to undulating terrain. These implements are offered individually, or as a complete three-function system. For more information, contact 610-688-4009.
U.S. Microbics readies new bug plant

CARLSBAD, Calif. — U.S. Microbics, Inc. has announced that its new manufacturing facility is proceeding on schedule as contractors install fixtures, laboratories and production equipment in preparation for startup of microbial fermentation and blending operations sometime this month.

The company expects to initially produce limited quantities of microbes in its pilot plant operation with both 14-liter and 130-liter fermentors. These vessels will be used to ferment microbial cultures which will be blended into agricultural products used for plant growth enhancement and water savings for applications on golf courses.

The company also anticipates the installation of a 1,000-liter fermentor within the next six months to increase its microbial capacity to meet Bio-Raptor demand. The larger fermentor will enable the company to scale up pilot plant operations and internally ferment microbial blends rather than rely on third party fermentation.

The 22,000 square feet of office and warehouse space should be ready for full occupancy by August 15 and management eagerly waits for the contractor's dust to fall. Company Executive Vice President, Merr Robinson, stated, "This new facility will culminate our efforts to restart the manufacturing operations after a six-year hiatus. With numerous past customers requesting microbial products we will finally be in a position to start satisfying their needs during this fiscal year."

TPI survey says sod sales hot

ROLLING MEADOWS, Ill.— Golf courses are wielding a bigger stick in the sod business than ever before, according to a recent survey by Turfgrass Producers International.

The survey—which polled TPI members on the distribution of their 1997 sales—showed that the percentage of the nation's turfgrass sod purchased by golf courses has nearly doubled in the last decade.

In 1989, a mere 4.7 percent of all sod purchases related to golf course development and renovation.

But by 1997, that percentage had grown to 8.14 percent.

"Turfgrass sod enables a new or renovated course to open earlier and generate cash sooner," explains Doug Fender, executive director of TPI, noting that "better installation procedures and heartier cultivars are also leading to increased use of turfgrass sod on golf courses."

Government statistics place nationwide sod sales at nearly $500 million annually.

Members of Turfgrass Producers International include nearly 1,000 turfgrass sod producers in 36 countries.

EPA/pesticides

Continued from page 39

facturers could meet requirements of the law if decisions are based on scientific data and actual pesticide use; allow for development of scientific methodology to meet the new safety standards and revised objectives for protecting human health and the environment; and establishes and communicates open, uniform and scientifically practical policies to guide consistent implementation.

Among the 'default assumptions' the EPA can make in applying the law is the contention that grated or chipped (course maintenance) staffs will use the product with maximum frequency and in the maximum dosage allowed by law.

GCSAA has embarked on an extensive membership education and communication plan to address the issue, and has joined forces with numerous groups to work with lawmakers on the implementation of the law.

For more information about Quelant™-Ca call Nutramax Laboratories at: 800-925-5187

CALCULATING DEFICIENCY CORRECTOR

QUANANT™-Ca
Calcium & Amino Acids

Addition of calcium to the soil by traditional means is not usually efficient or effective in treating the calcium deficiency of turfgrass. Once applied, the common forms of liming materials can rapidly change to compounds that are insoluble in water and not readily available to the plant. Continuous applications over long time periods are necessary to effect even modest improvements in calcium uptake.

Quelant™-Ca is a newly available amino acid chelated calcium product that corrects calcium deficiencies in turfgrass upon application. Quelant™-Ca provides readily available calcium chelated with amino acids so that it is easily absorbed by the leaves and the roots of the plant regardless of soil and water conditions. The unique formulation of amino acids used for chelation was developed not only to facilitate absorption by the leaves and roots, but to increase mobility of the calcium within the plant as well.

Quelant™-Ca is normally applied as a foliar spray and may also be applied through fertigation. Either way, it is tank-mix compatible with herbicides, soluble fertilizers, insecticides, fungicides and plant growth regulators. It will even help improve the efficiency of most of these treatments by increasing their absorption and translocation within the plant.

Best of all, Quelant™-Ca is economical to use and it protects the environment.

For more information about Quelant™-Ca call Nutramax Laboratories at: 800-925-5187

QUELANT™-Ca — a true systemic. It's new...it's unique...and nothing else works quite like it!
EPA approves new Dimension labeling

PHILADELPHIA—The U.S. Environmental Protection Agency has approved the new labeling for Rohm and Haas Co.'s Dimension crabgrass preventer. This provides a crabgrass treatment for both lawns and landscape beds. The company said this non-staining product can be safely applied around more than 150 types of flowering plants, shrubs and trees. This list includes plants such as roses, azaleas, day lilies and dogwoods; shrubs such as junipers, hollies and laurels; and trees such as pines, spruces, maples and oaks.
Dimension herbicide is available as an emulsifiable concentrate and in several fertilizer formulations.

Foley/Neary

Continued from page 39
Foley sales force.

According to Dick Hentges, chief operating officer of the new conglomerate, "Foley's capital resources, excellent engineering support services and name recognition, combined with Neary's innovative new product development, strong customer service and product loyalty will create an entity that will be a dominant supplier for our industry."
The company has no immediate plans for product changes for either line.
The Foley Companies own Foley Belsaw, a company that does correspondence education in income opportunities areas and Foley Martens, a wood working company that manufactures houseware products.

SRO, O.B.

Continued from page 39
fulfill the need for overseeding in the South, as well as acquiring enough ryegrass and other seed for our new course projects.
O.B. currently has 126 holes and is in the final planning stages of new projects in Port Orchard, Wash., and Tucson, Ariz.
"From our side we're ahead of the curve as far as new O.B. projects and renovations are concerned," said Skip Lynch, SRO's technical agronomist.
"We can be on site to help them with their agronomy and they get the price breaks and improved service."
Seed Research has committed to a set number of visits to O.B. courses to work with superintendents to make recommendations and keep supers up to date on any new turf research.

Lasco ready for expansion

BROWNSVILLE, Tenn.—Lasco Fluid Distribution Products Co., a supplier of pressure and drainage, waste and vent pipe fittings, announced expansion plans to build a new plant that will triple the size of its existing facility and double production capabilities.
This new facility, housed on 50 acres of land in the Brownsville-Haywood County Industrial Park, will be nearly 500,000 sq. ft. and will eventually replace Lasco's existing Brownsville based operations.
Cost of the project is valued at $26 million to include additional injection molding machines for Lasco to further seek organic growth in the irrigation and golf course markets.

Milorganite sponsors turfgrass research

MILWAUKEE—For the fourth consecutive year Milorganite is sponsoring its Turfgrass Research Donation Program.
For each ton purchased and delivered between August 1 and November 30, 1998, Milorganite will donate $10 to the superintendent's favorite turfgrass research organization.
"Milorganite and its distributors have supported turfgrass research at the national level for decades through the O.J. Noer Research Foundation," said Milorganite spokesperson Larry Lennert. During the first three years, Milorganite donated $65,000 to research organizations across the U.S. and Canada.

It's The Grass That Makes The Golf Course. And It's Pennington That Assures The Quality.

Pennington Seed has a great selection of unbeatable turfgrass varieties. Whether your needs are for a seeded hybrid Bermuda or a cool season species, you can rest assured that the highest quality seed will be delivered. And, if you have any specific requirements to be followed, we can easily handle that request.
As promoters of Tournament™ quality seed, we believe that every professional turfgrass manager should demand excellence from all aspects of their grounds—especially from their turfgrass. That's why it pays to trust the high standards of Pennington and avoid the problems that come with inferior quality seed.

Pennington Seed. Quality You Can Trust.
CALL PENNINGTON SEED AT 1-800-277-1412 FOR A DISTRIBUTOR NEAR YOU • www.penningtonseed.com

CIRCLE #124
Shackelford strides into Mackenzie’s world

By MARK LESLIE


The Good Doctor, for those outside the loop, is Dr. Alister Mackenzie, thought by many to be the greatest golf course designer of all time. And in this whimsical excursion, Shackelford may earn himself a few karate chops rather than kudos.

The book is written in the first person, from the point of view of a young golf course architect who gets hired by Dr. Mackenzie, who did not die as we thought on Jan. 6, 1934.

Here, with a few of those views:

• Regarding bunkers, Mackenzie says, “My experience with today’s courses is one of despair and disbelief.”

• “I never thought I’d see the day when they would install irrigation on the great links of the British Isles.”

• Regarding narrow fairways bordered by long grass, it “makes bad golfers! And narrow fairways destroy the harmony and continuity of the game, causing a stilted and cramped style, destroying all freedom of play and creative shotmaking. And isn’t that the real joy of the game? Creating shots and making bold recovery plays?”

• Regarding green committees, “Many have ruined my handiwork by planting trees like rows of soldiers along the borders of the fairways and turning once beautiful properties into jungles.”

For his part, the narrator declares of Augusta National: “There was virtually nothing left of the Doctor’s original design at Augusta other than the rout- ing and a couple of bunkers.”

And he tells Mackenzie he can’t ask Augusta National’s greens committee “if the fool who built the 16th green was drunk and blind.”

Well, the Good Doctor gets his site for a final golf course—a property on the ocean in San Diego with grassed-over dunes, sandy soil and undulating land.


Vietnam’s growing pains

Continued from page 9

attracting members and assuring quality will continue to be a challenge, the club has the backing to maintain its spot as the all-around leader in HCM City.

The No. 2 competitor in HCM City is the Song Be Golf Club which is a joint Singaporean and Swedish venture. They have enjoyed a good share of the membership market since opening in 1996, and now have over 400 members. However, they have had their share of course construction and project setbacks, the most obvious of which is the half-finished concrete and steel shell of their “permanent” clubhouse.

The only permanence it possesses at the moment is as a nagging eyesore which is not likely to go away before the year 2000. The difficulties they have had with the golf course are a bit more subtle.

Perhaps the most encouraging aspect of Song Be is its current membership sales approach to the local market. In order to encourage more Vietnamese to play they have scheduled “open” days to introduce them to golf in a low pressure environment.

Further, they have restructured their membership schemes to tailor them to the Vietnamese market.

“The strategy is to get word of mouth and group power to sell memberships among the Vietnamese — it will just take a handful of Vietnamese members to start this movement,” contends Paul Slater, the director of marketing for Song Be. With that in mind they have extended the payment plan for Continued on page 46
FOR SALE

ARCH STYLE STEEL BUILDINGS
Build it yourself and save money! For cart and equipment storage. Factory direct.
Save money on buildings in stock. 20 x 30; 25 x 40; 30 x 55; 45 x 75; 51 x 150. Easy to erect.
Archway Steel Buildings: 1-800-344-2724.

PERSONALIZED GOLF FLAGS
by DuPont Solar Max Nylon
BRITISH POLES
Buy Direct and Save
1-800-476-7005

PORTABLE CONCRETE PATH PAVER
Install up to 3,000 L. F. per day.
Used only five hours.
Install golf cart paths, bicycle paths, etc.
Call Jim, (715) 258-8566.

HELP WANTED

SHAPERS WANTED
Golf Course Construction Shaper Needed. Must be willing to travel. Fax resume and date available to 616-547-7009.

GOLF COURSE FOR SALE

GOLF COURSE FOR SALE
Established 18 hole golf course, building lots, club house and all equipment in Buffalo, N.Y. area. $2.6 million. Qualified buyers, NO H/A. Fax inquiries to 716-433-4604.

LAND FOR SALE
GOLF entusiasts, 397 wooded acres in NW Montana, 1 mile of pristine lake front, 1 mile of streams, fairways cleared. Best natural features anywhere. Finish and own your own golf course. Call Al @ 888-516-9462.

HIDDEN ACRES 18 HOLE EXECUTIVE GOLF COURSE
6269 Route 20A, Warsaw, NY 14569.
The owners are offering this very fine 18 hole executive golf course for sale as a complete turn key operation. The real property includes: 77 acre parcel of land with 18 hole golf course, Pro Shop, two large storage buildings – Plus a lovely 3 bedroom ranch style home. “Owners are anxious to Sell!” For information & packet call: Letchworth Valley Realty, 524 Curtis Rd, Warsaw, NY 14569. (Phone: 716-786-0951 or Fax: 716-786-3090).

GOLF COURSE CLASSIFIEDS
To reserve space in this section, call Jean Andrews 207-925-1099.

FOR SALE

ARCH STYLE STEEL BUILDINGS
Build it yourself and save money! For cart and equipment storage. Factory direct.
Save money on buildings in stock. 20 x 30; 25 x 40; 30 x 55; 45 x 75; 51 x 150. Easy to erect.
Archway Steel Buildings: 1-800-344-2724.

PERSONALIZED GOLF FLAGS
by DuPont Solar Max Nylon
BRITISH POLES
Buy Direct and Save
1-800-476-7005

PORTABLE CONCRETE PATH PAVER
Install up to 3,000 L. F. per day.
Used only five hours.
Install golf cart paths, bicycle paths, etc.
Call Jim, (715) 258-8566.

HELP WANTED

SHAPERS WANTED
Golf Course Construction Shaper Needed. Must be willing to travel. Fax resume and date available to 616-547-7009.

GOLF COURSE FOR SALE

GOLF COURSE FOR SALE
Established 18 hole golf course, building lots, club house and all equipment in Buffalo, N.Y. area. $2.6 million. Qualified buyers, NO H/A. Fax inquiries to 716-433-4604.

LAND FOR SALE
GOLF entusiasts, 397 wooded acres in NW Montana, 1 mile of pristine lake front, 1 mile of streams, fairways cleared. Best natural features anywhere. Finish and own your own golf course. Call Al @ 888-516-9462.

HIDDEN ACRES 18 HOLE EXECUTIVE GOLF COURSE
6269 Route 20A, Warsaw, NY 14569.
The owners are offering this very fine 18 hole executive golf course for sale as a complete turn key operation. The real property includes: 77 acre parcel of land with 18 hole golf course, Pro Shop, two large storage buildings – Plus a lovely 3 bedroom ranch style home. “Owners are anxious to Sell!” For information & packet call: Letchworth Valley Realty, 524 Curtis Rd, Warsaw, NY 14569. (Phone: 716-786-0951 or Fax: 716-786-3090).

HOW TO ORDER A CLASSIFIED AD

Rates: $90 per column inch (25-35 words, including a bold headline). Each additional 1/4 inch is $30. If ordering a logo, please indicate and include an extra $45; for a blind box, please indicate and include an extra $20. All line ads must be prepaid. All rates are per insertion. For more information, call Jean Andrews at (207) 925-1099. To place your classified ad, mail this form with enclosed payment to: Golf Course News, PO Box 997, 106 Lafayette St., Yarmouth, ME 04096 or fax to: (207) 846-0657.

Your Name
Company Name
Address
City State Zip
Daytime Phone
Exp. date
Signature

Golf Course Classifieds
September
7-10 — Responsible Industry for a Sound Environment annual meeting in Palm Beach, Fla. Contact 202-872-3560.
22-24 — turf and landscape field days in Blackburn, Va. Contact David McKissack at 540-231-5997.

October

November
1-3 — International Irrigation Expo in San Diego, Calif. Contact 703-378-3351.
4-5 — Heart of America GCSA Annual Golf & Turf Conference in North Kansas City, Mo. Contact 816-561-5233.
9-12 — West Virginia GCSA Turf and Snow Conference in Morgantown, W. Va. Contact Robert Maguire at 304-243-4154.
13-16 — Midwest Turfgrass & Ornamental Seminar in Lafayette, Ind. Contact Bev Bratton at 765-742-8822.
16-17 — Professional Lawn Care Association of America Annual Conference in Nashville, Tenn. Contact 800-458-3466.
18-20 — Rocky Mountain Regional Turfgrass Association Conference in Denver. Contact 303-770-2220.
21-23 — Heart of America GCSA Annual Golf & Turf Conference in North Kansas City, Mo. Contact 816-561-5233.

December
1 — North Central Turfgrass Exposition in St. Charles, Ill. Contact 312-201-6101.
7-10 — Ohio Turfgrass Conference in Columbus. Contact 614-795-5412.
8-10 — Georgia Turfgrass Show in Atlanta. Contact 770-975-4123.
9-11 — Rocky Mountain Regional Turfgrass Association Conference in Denver. Contact 303-770-2220.

* For more information contact the GCSAA Education Office at 800-472-2762.
Golf Course Marketplace

To reserve space in this section, call Jean Andrews, 207-925-1099.

EXCEL
BRIDGE MANUFACTURING CO.

S
pecializing in golf course, park/bike trail bridges and using a variety of materials to suit your particular landscape needs, we fabricate easy-to-install, pre-engineered spans and deliver them anywhere in North America.

800-548-0054
(inside California)
10001 Sherman Avenue, Santa Fe Springs, CA 90670
Tel: 562-944-0701 Fax: 562-944-6025

The Macho Combo: Combines the beauty of wood and the strength of maintenance free self-weathering steel. Bridge designed by Golf Dimensions.

HARCO DUCTILE IRON FITTINGS FOR GOLF COURSE IRRIGATION SYSTEMS

Sizes 2" through 12", all configurations including "knock-on" repair couplings. High Strength, high corrosion resistance.

The Harrington Corporation
P.O. Box 10335
Lynchburg, VA 24506
804-845-7094 Fax 845-8562

Quality with a Twist

A twist of our easy off lid gives you quick access to Pinhigh’s quality reel sharpening compound.

Call 1 (800) 422-4748

You’ll want to play barefoot on our certified grasses.

P.O. Box 1865, Lombard, IL 60148-1865
1-800-749-7515
www.steadfastbridge.com

117 American Cyanamid* 6
118 American Cyanamid 34
135 The Andersons 42
141 Bearcom 44
142 Bird-X 45
— Club Car 13
143 Continental Bridge 44
146 E.F. Burlingham & Sons 42
107 E-Z-Go 26
144 EcoTurf, Inc. 44
145 Enwood Structures 44
146 Excel Bridge Mfg. 45
113 Flowtronex PSI 9
119 FMAC Golf Finance Group 29
147 Formost Construction Co. 45
148 Great Lakes Containment 44
149 Harrington/Harco Corporation 45
129 Homestead Nitrogen Corp 30
115 Hydro Agri North America, Inc. 29
121 IGM 28
150 Jesco Products/Pinhigh 45
109 John Deere 4-5
151 JPF Distributors 44
152 Kirby Markers 44
157 Kubota 47
122 Lebanon Turf Products 38
153 Master of the Links 45
104 Miforganiite 24-25
132 National Mower 31
— NOVARTIS 16-17
123 Nutramax 40
112 Palmer Course Design 21
140 Partac Pest 46
333 PFI/Gordon Corporation 33
124 Pennington Seed 41
— Public Golf Forum 12
102 Parshall Industries 10-11
154 Quail Valley Farms 45
131 Redexim Charterhouse 31
139 RJ Advantage 42
155 Ryan Inc. Central 44
125 Seed Research of Oregon 36
126 Smithco 18
128 Terra Industries 37
117 American Cyanamid 16-17
105 Zeneca Professional Products 22-23
114 Watertronics 3
138 York Bridge Concepts 46
130 United Horticultural Supply 7
129 Ty-Crop 32
137 Turfline, Inc 46
132 National Mower 31
139 RJ Advantage 42
154 Quail Valley Farms 45
155 Ryan Inc. Central 44
125 Seed Research of Oregon 36
126 Smithco 18
128 Terra Industries 37
117 American Cyanamid 16-17
105 Zeneca Professional Products 22-23
*Appears in regional edition.

GOLF COURSE NEWS

September 1998

45
Management track
Continued from page 1
Maintenance tracks will run concurrently over the two days.
Returning speaker Gregg Gagliardi, whose past sessions have traditionally been among the most popular, will open a discussion of the business factors changing the face of public golf management. Gagliardi is a longtime course general manager who recently started his own management firm, Diamond Players Club, in partnership with Texas Rangers’ starting pitcher Todd Stottlemyre.

“Their Produce A Smooth Putting Surface!”

Paul Diegnau, CGCS
Keller Golf Course, Maplewood, MN

“The TRUE-SURFACE® vibrating greens rollers help work the sand down into the thatch after light topdressings and aerification. And they produce a smooth putting surface! They offer easy-on, easy-off convenience, so installation is quick and easy. It’s a great way to train new triplex operators without the worry of scalping. The TRUE-SURFACE® rollers rely on mechanical vibration to create their down pressure, not excessive weight. Their light weight causes no more stress on a triplex frame than a standard cutting unit.”

For Your Demo
Call Today
1-800-443-8506

True-Surface...makes true greens!

Visit our web site at http://www.true-surface.com

CIRCLE #137

According to the Orlando, Fla.-based executive, increased affluence, business factors and media coverage have all contributed to a burgeoning golf industry. He will discuss the problems created by the game’s growth — such as inadequate facilities and inaccessibility due to high costs — and how well-managed operations have turned those problems into niche opportunities.

“Great opportunity exists for companies with the right approach,” Gagliardi said. “We believe we have it.”

Another individual with the right approach is Vince Alfonso. Alfonso is a 40-year golf-industry veteran who has managed everything from nationally acclaimed golf courses such as The Rail in Springfield, Ill., to rock-and-roll bands. One thing Alfonso has learned is that good managers and good golf courses must change with the times if they are to prosper.

Two years ago, Alfonso purchased a troubled nine-hole course in the Branson, Mo., marketplace. In a few short months, the management/marketing consultant made numerous changes and turned Kimberling Golf Club into the place to golf in that growing market. Alfonso will share some of his insights during his session titled, “Developing new markets: Resurrecting a 9-hole in a resort marketplace.”

Efficient management and creative marketing have been the keys to success for the growing number of management companies. Arnold Palmer Golf Management has been one of the leading players in the ongoing consolidation of the golf industry. The Orlando-based firm has purchased, leased and/or taken over management of numerous courses nationwide. Course owners of attractive properties have struck lucrative deals with Palmer and other firms.

But what makes a course attractive to one, or preferably, many management firms? In his talk, “Owner Focus: What top management companies look for in a public-access course,” Bill Hunscher, Palmer’s vice president of acquisitions, will discuss how to set up a course to pique the interest of several firms and let them do the work. To obtain the best deal they can for their properties. Once the offers are on the table, how does a course operator, particularly a municipality, choose among the various proposals? Gene Burress, Golf Operations Director of the Broward County (Fla.) Parks and Recreation Department, will guide course operators through the maze of options during his talk, “How a municipality should select a management firm.”

Other management/marketing speakers appearing at this important national event will include John Henry, who will speak on how the PGA strives to develop course pros who know as much about how to create a healthy bottom line as they do about how to curb a slice during his session titled “PGA of America’s Career Links Program: Golf professionals as golf course managers.”

Also on the card is a session entitled “Selling vs. buying: What’s best for you?” A representative from a leading golf course equipment supplier will discuss one of the biggest decisions operators of existing or new golf courses make, whether to buy or lease their course equipment.

For more information on Public Golf Forum, please contact United Publications at 800-441-6982 ext. 262.

Vietnam’s growing pains
Continued from page 42
membership from a two-year time frame to a six-year time frame. While this means that the club will have to wait longer to regain investment costs, it should make golf more accessible to locals by simplifying the process and making it less costly. Furthermore, they say they hope to work with the Asian Commercial Bank to offer special memberships to their customers and card holders. Although these new strategies have only been in place for two months, interest is reportedly quite high.

The other two clubs in the area have a significantly smaller membership base. The Vung Tau Paradise Golf Club was the first golf project licensed by the MPI in 1991. However, the Taiwanese investor has been unsuccessful in creating a quality product. The 27-hole golf course fails to take full advantage of its seaside location. Further, Vung Tau has not materialized into a major tourist destination for golfers and the expatriate community in Vung Tau is hardly abundant. It is taking a long time to get the golf course up and running.

The owner has recently brought in a young New Zealander, Michael Davies, who is filling the roles of maintenance supervisor, pro, and director of golf. He certainly has the energy for the job, but it will be a tough road ahead if he is to have any lasting impact on the quality of the golf course.

Certainly Vung Tau Golf Club has much more if it is to move beyond this initial stage of development. The Dong Nai Golf Resort is the newest project in Vietnam situated about an hour and a half up Highway One from HCM City in the Dong Nai industrial area. The first 18 holes opened in March of 1997, and the third nine holes are currently under construction.

The course has been one of the most spectacular topographies of any golf course around HCM City and American Ward Northrup has done a terrific job on the design.

However, the course — owned by the Taiwanese BoChang group — was closed for three months this spring, remaining open only on weekends for members. The claimed reason was that they need more time to adequately train their staff, but it may have been a short-term cost-cutting measure instead.

The next two golf courses are in Dalat and Phan Thiet and are close enough to be weekend courses for Ho Chi Minh City residents, but they are best positioned to attract resort golfers and other Asian members.

To be continued in OCN October
Nestled in their sheds at night, ordinary mowers dream of only one thing: growing up to be a Kubota F-60 Series. And it's easy to see why.

The Kubota F-60 Series features our exclusive Auto Assist 4WD with Dual-Acting Overrunning clutch. It automatically transfers power to the rear wheels when the going gets tough. Or, you can manually engage 4WD on the go. Either way, it gives you unequalled traction and maneuverability while reducing the damage to your valuable turf.

Visibility and maneuverability will increase your productivity.

The durable, independent hydraulic PTO clutch lets you engage and disengage PTO driven implements on the move. A real time-saver in tight situations.

Kubota’s advanced E-TVCS diesel engines are designed to deliver maximum power with minimum vibration and noise. Plus, these super-efficient powerplants go a long way in cutting fuel costs and emissions.

Available in 22, 25 and 30 horsepower 4WD models, the Kubota F-60 Series also comes in a 25 horsepower 2WD model.

So if you’re looking for a front-end mower that handles like a dream, see your authorized Kubota dealer today.

For more information please write to:

KUBOTA TRACTOR CORPORATION
P.O. Box 2992-GCN
Torrance, CA 90509-2992
1-888-4KUBOTA ext. 407
Financing available through Kubota Credit Corporation
©1998 Kubota Tractor Corporation

Available with 60" or 70" side discharge mower or 60" or 72" rear discharge mower.
Ever notice how more fans always follow one foursome?

Some pairings just naturally draw more attention than others. Maybe that’s why the buzz around the world is about the new Textron Turf Care And Specialty Products team. Cushman, Jacobsen, Ransomes and Ryan—four great names, each built upon legendary performance, together as one foursome. The unbeatable team.

Easy to do business with. First in innovation. Dependable quality. And, the experience and know-how to get the job done. It’s good for the industry. It’s good for the game. It’s even better for you.

To make the most of your turf maintenance investment, follow the leader. Call 1-888-922-TURF. It’s where the action is.