THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

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A Super Event

Coverage of the Golf Course Superintendents Association of America Conference & Show 13-23

It's All in the Method

Hydroseeding now a more viable choice for golf course construction projects35



SIR MICHAEL AND THE CHAIRMAN

Sir Michael Bonallack, right, president of the British & International Golf Greenkeepers Association, tours the BTME show floor with new BIGGA Chairman Elliott Small of Tulliallan in Scotland. For highlights of the event, see page 25.

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Andersons to buy Scotts **Pro Turf**

By A. OVERBECK

MAUMEE, Ohio - In a move that will likely trigger further consolidation within the fertilizer industry, The Andersons, Inc. has signed a letter of intent with The Scotts Co. to acquire Scotts' U.S. Professional Turf business.

The two companies have agreed to a long-term supply agreement under which Scotts will use its proprietary manufacturing processes to produce products for Andersons. The acquisition includes ProTurf, Contec and other brand names, the distribution network, customer lists and all trademarks

Continued on page 64

Dinelli receives Excellence Award

By MARK LESLIE

NEW ORLEANS - Ingenuity and initiative in the Dinelli family are longstanding traits, the latest result of which is the presentation of the 2000 Scotts Tradition of Excellence Award to Dan Dinelli of North Shore Country Club in Glenview. III.

The Scotts Co. of Marysville, Ohio, presents the annual peer-nominated award to recognize outstanding achievements among superintendents who are "dedicated to advancing the science of course maintenance and making golf the best it can

Continued on page 42

Superintendents, builders, owners trumpet change



New GCBAA exec: Upgrade image

By PETER BLAIS

NEW ORLEANS - Increasing public and professional awareness of the importance of golf course builders is a primary goal of incoming Golf Course Builders Association of America (GCBAA) Executive Vice President Lee Hetrick

"The builders need more exposure and recognition from the architects and superintendents because of the contributions builders make," Hetrick

said. "What you see when a course opens is a collaborative effort. But I don't know if I've ever looked at a golf course scorecard and seen the name of the builder. My ob-



jective would be to have the builder Continued on page 16

NGCOA's Stine: Continue assn. growth

FT. LAUDERDALE, Fla. - In a sign of these consolidation times, William Stine, president of 100-course Meadowbrook Golf Group, was elected president of the National Golf Course Owners Association (NGCOA) during the group's annual meeting here.

"I've been on the [NGCOA] board for the past eight years and was a member before that," said Stine, who started in the business as a single-

course operator. "It's just in the past few years we've become a multi-course operator. I've evolved through the business, just as our organization has.'



Stine's father, Charlie, started Continued on page 57

GCSAA: Scott Woodhead takes reins

NEW ORLEANS - Scott Woodhead was elected president of the Golf Course Superintendents Association of America during the recent International Conference and Show held here.

Woodhead, who was appointed to the board in 1993, hails from Valley View Golf Course in Bozeman, Mont.

He replaces David Fearis of Blue Hills Country Club in Kansas City, who will continue on the board as immediate past president.

Tommy Witt of StillWaters in Dadeville, Ala., was elected vice president and Michael Wallace of Hop Meadow Country Club in Simsbury, Conn. secretary/ treasurer.



Also elected to the board of direc-Continued on page 17

REPLENISHING NATURE

Greg Nash-designed Anthem Golf & Country Club shows its colors in Phoenix. Builders replenished the natural vegetation in order to bring back the land to its original state. See p.8.

PERIODICAL

What they're saying about Penn Pals

"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 country and the long wide rolls minimized sooms. We re-consider the long wide rolls minimized sooms. We re-consider the long wide rolls minimized sooms.

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.

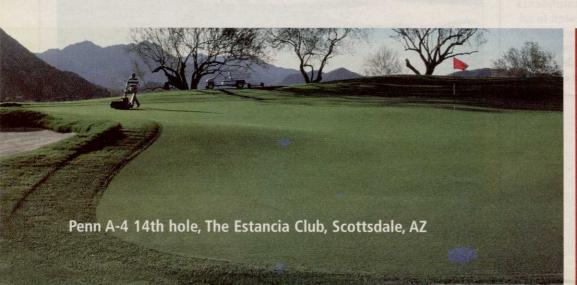
When the greens were placed in play the spring after conversion, comments from our golfing membership were very positive even though turf maturity had not been reached. Putting trueness and turf appearance were among the positive remarks most often mentioned. Now that the putting surfaces have additional 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
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BRIEFS

PALM SPRINGS, Calif. — Cimarron Golf Resort has opened for play. The 36-hole complex consists of executive-length and regulation-length 18-hole layouts. John Fought designed the courses, which are owned and operated by O.B. Sports.

MARIN COUNTY, Calif. — StoneTree Golf Club is on schedule to open in June. Located in the northern part of the county near the Sonoma and Napa valleys, the 18-hole, daily-fee facility was designed by the team of Sandy Tatum, Johnny Miller, Jim Summers and Fred Bliss. Western Golf Properties will operate the facility.

NAPLES, Fla. — The Naples Grande Golf Club has opened for play. The private, 18-hole Rees Jones design was developed by Boca Resorts Inc., owners of The Registry Resort and Edgewater Beach Hotel. Boca Resorts Inc. also operates Grande Oaks Golf Club in Fort Lauderdale and the Boca Hotel and Resort in Boca Raton.

BRADENTON, Fla. — Waterlefe Golf & River Club has opened for play. Ted McAnlis designed the 18-hole course.

Grip-it-and-rip-it fun on the way at PTI's FarmLinks

By ANDREW OVERBECK

SYLACAUGA, Ala. — Many fertilizer companies build one or two "model" golf holes to use in research and development and to showcase wares to superintendents and end users. While Pursell Technologies, Inc. (PTI) intends to use its facility as a testing site, the company is upping the ante by constructing FarmLinks, an 18-hole course that will include a First Tee component.

"We will use the course to showcase our fertilizer technology, entertain guests and offer area golfers and corporations an opportunity to experience the game of golf in a truly pastoral setting," said David Pursell, chief executive officer of PTI.

Hurdzan/Fry Design Group had full reign over 2,700 acres of the Pursell family's land which is nestled into the southern foothills of the Appalachian Mountains. It has taken Michael Hurdzan, Dana Fry and associate David Welchel more than nine months and several visits to route the course over a 200acre area.

"It is awesome land. Even if you just had a portion of it, you would go, 'Oh wow!' When they say, 'Take what you need and we'll make everything else work,' that is pretty rare," said Hurdzan. "It speaks to the fact that the Pursells have been around golf and they understand what it takes to make a great golf course."

As a result of the design freedom, there will be minimal earthmoving and land-clearing. A central lake will provide the fill and Hurdzan expects to clear only 20 to 25 acres as opposed to the usual 90 acres.

"One of the things we want to do is enhance what is already there," he said. "We want to show that golf courses can be great diverse recreation and habitat areas. Our intent is to make the land better."



Pursell Technologies CEO, David Pursell tees it up on what will become the 18th tee.

While his list of special holes at FarmLinks is constantly evolving, Hurdzan already has a few favorites.

"The 9th hole is going to be tremendous. It sits down below the clubhouse with a creek that winds through the fairway," he said. The 18th hole makes the short list as well, and was, according to Hurdzan, "almost just sitting there."

Holes four, five and six wind up into the hills on the property, featuring tremendous views of the surrounding mountains and river valley. The par-3, 5th hole was added to the design after

Continued on page 9

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New Rees Jones design opens in Houston

HOUSTON—The Houstonian Hotel, Club & Spa has opened its resort-style golf course, The Houstonian Golf Club.

The Houstonian Golf Club is part of an extensive project by course architect Rees Jones.

The Houstonian Golf Club is located southwest of Houston off of FM 1464 in Fort Bend County. The 18-hole, par-72 course will play host to guests of The Houstonian Hotel, Club &

Spa, meeting attendees, Houstonian Club members and tournament players. Tee times will be structured around 12-minute intervals to prevent overcrowding, while enhancing the entire golf experience.

The club also has an 18,000-square-foot, Mediterranean-style clubhouse, a full-service pro shop, five conference rooms, a mixed grille, outdoor patio and an on-site chef.

Ariz.'s Camelback to receive facelift

SCOTTSDALE, Ariz. — Camelback Golf Club at Marriott's Camelback Inn will be enhanced with a complete redesign of the Padre Course and practice range, along with an expanded clubhouse, pro shop and restaurant. The project is managed by Arthur Hills/Steve Forrest and Associates.

The Padre Course will be a parkland setting. The course will be lengthened by 300 yards and three new lakes will be added. While some holes will maintain their current routing, others will be re-routed to increase the overall playability, competitiveness and appeal.

The new clubhouse will be expanded to nearly 36,000 square feet and will feature an executive board room and a permanent outdoor pavilion.

SC's Tidewater completes green, bunker updates

MYRTLE BEACH, S.C. — Tidewater Golf Club has completed a three-month renovation project and reopened for public play. The renovation was undertaken as part of Tidewater's 10th anniversary celebration.

During the renovation, greens were replanted with A-1, an improved variety of bentgrass that is more tolerant of the Southeastern climate. The bunkers were rebuilt under the supervision of original golf course designer Ken Tomlinson and white Feldspar sand was added. Cosmetic improvements, such as land-scaping, were made to the remainder of the course.

Troon Golf manages the Tidewater course. Cala may buy

Oklahoma links

OKLAHOMA CITY — Cala Corp., an international hospitality firm, has offered to buy the members' stock ownership position in Twin Hills Golf & Country Club here. The club's board of directors must first approve the offer and submit it to a vote of the members.

Twin Hills was designed by Perry Maxwell and opened in 1921. It hosted the 1936 PGA Championship.

If its offer is accepted, Cala plans to have the design firm of Wimberly Allison Tong & Goo renovate the property.

IRWIN TO DESIGN ILLINOIS GOLF FACILITY

BELLEVILLE, III. — Local developer Travis Kelty has submitted plans to build an 18-hole, 114-lot golf course community on 328 acres here. Plans are to begin construction of the \$7-million project in June. Hale Irwin will design the course.

GOLF COURSE NEWS

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Computer labs join in First Tee project

PHOENIX, Ariz. — The First Tee Chapter of Phoenix, directed by The Thunderbirds, has taken a significant step toward developing what will be one of the most comprehensive First Tee facilities in the country.

The Thunderbirds plan a new 24-hole complex in south Phoenix that will include a regulation 18-hole course as well as a sixhole youth instructional facility, the latter designed by Tom Fazio. A new clubhouse will also be built and will incorporate afterschool computer laboratories and study halls for First Tee participants.

This is indeed a proud day for The Thunderbirds and all of their affiliated partners who share The First Tee vision and dreams," said Ray Artigue, Big Chief of the 62-year-old civic organization. "[This] is the culmination of years of planning and saving for what is a most significant golf course development, and the net result of these efforts will be a permanent golf home for the youth of south Phoenix."

Located on a 160-acre parcel on the southeast corner of 7th street and Dobbins, The Thunderbirds Golf Course will be jointly held by The Thunderbirds and the Alkhaseh Family Trust, former owners of the site. The Alkhasehs also plan to develop a resort hotel adjacent to the golf course.

"Because Luther Alkhaseh shares our commitment to providing broad access to the game of golf, we find ourselves in this unique partnership with him and his family. The Thunderbirds

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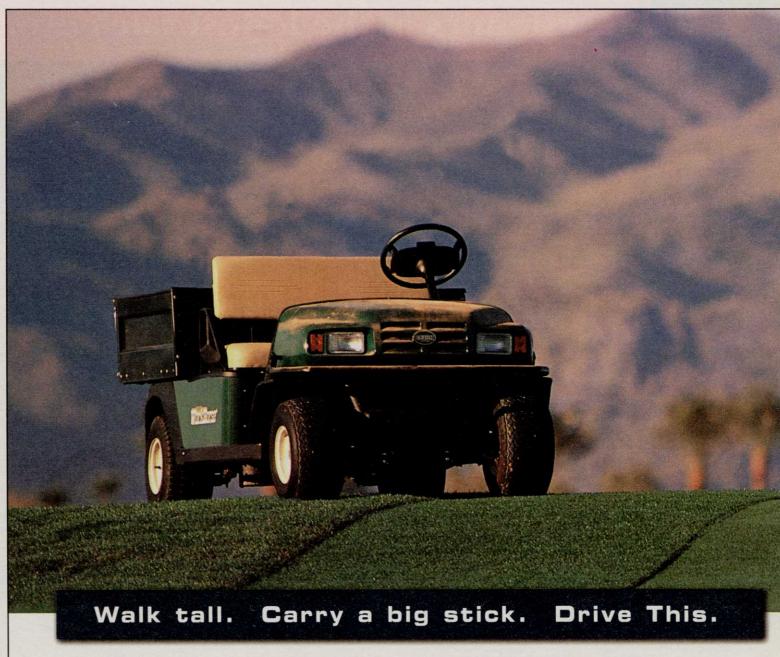
would not be in the position to develop this project without the generosity of the Alkhaseh family," said Artigue.

Estimated cost of the projects is in excess of \$5 million, which reflects substantial savings provided through discounts from numerous national First Tee partner companies.

The First Tee is a World Golf Foundation initiative dedicated to providing affordable golf access for everyone, especially younger people, who otherwise might not have an opportunity to play. The World Golf Foundation is supported by all the major international golf organizations and professional tours.

"Though the new golf course will be jointly owned by The Thunderbirds and the Alkhasehs. our organization will be responsible for operating the facility," said Tim Grant, chairman of The Thunderbirds Junior Golf Foundation. "All monies raised by The Thunderbirds will be used to benefit needy charities, including funding additional First Tee facilities throughout the Valley.'

"This is the stuff that dreams are made of," said Phoenix City Council member Cody Williams. "Since 1957, the Thunderbird Golf Resort has been an important part of the city of Phoenix. With this new commitment, I am sure that residents of the South Mountain Village area will celebrate the investment made by The Thunderbirds, Mr. Alkhaseh and The First Tee."



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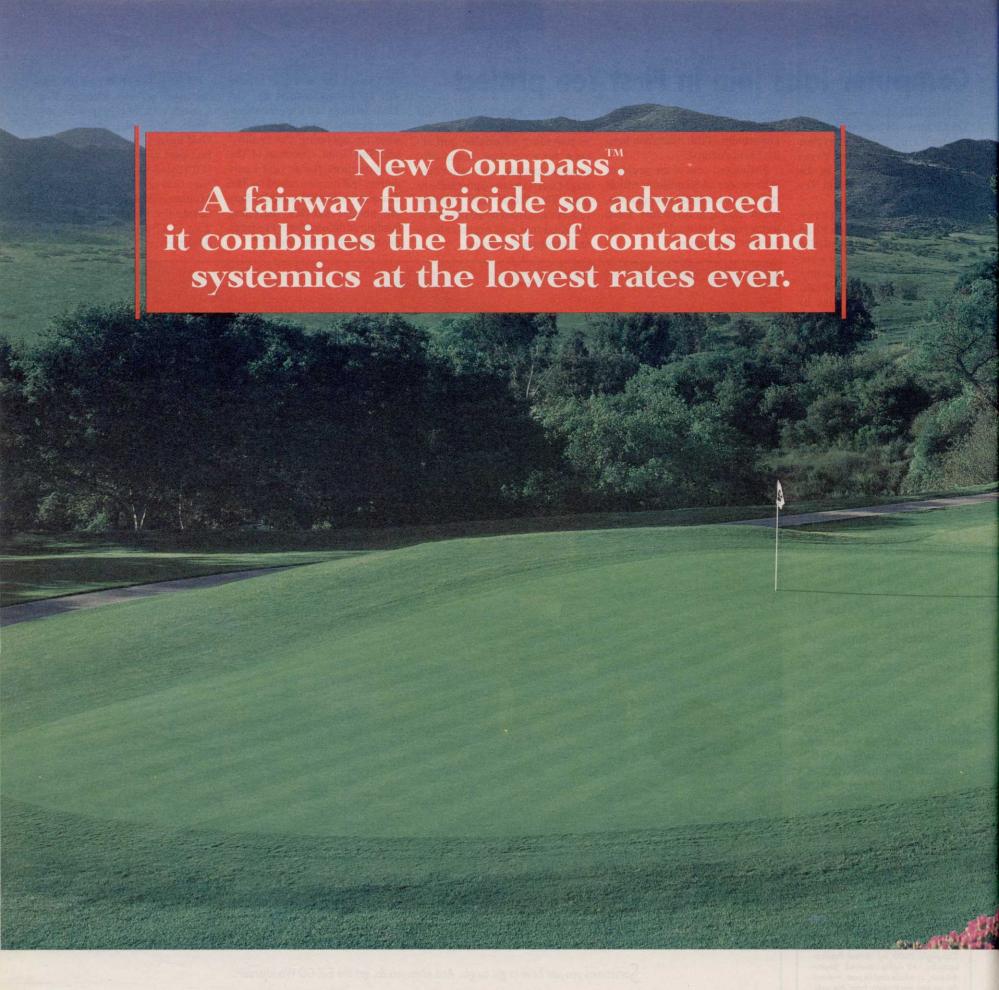
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GOLF COURSE NEWS



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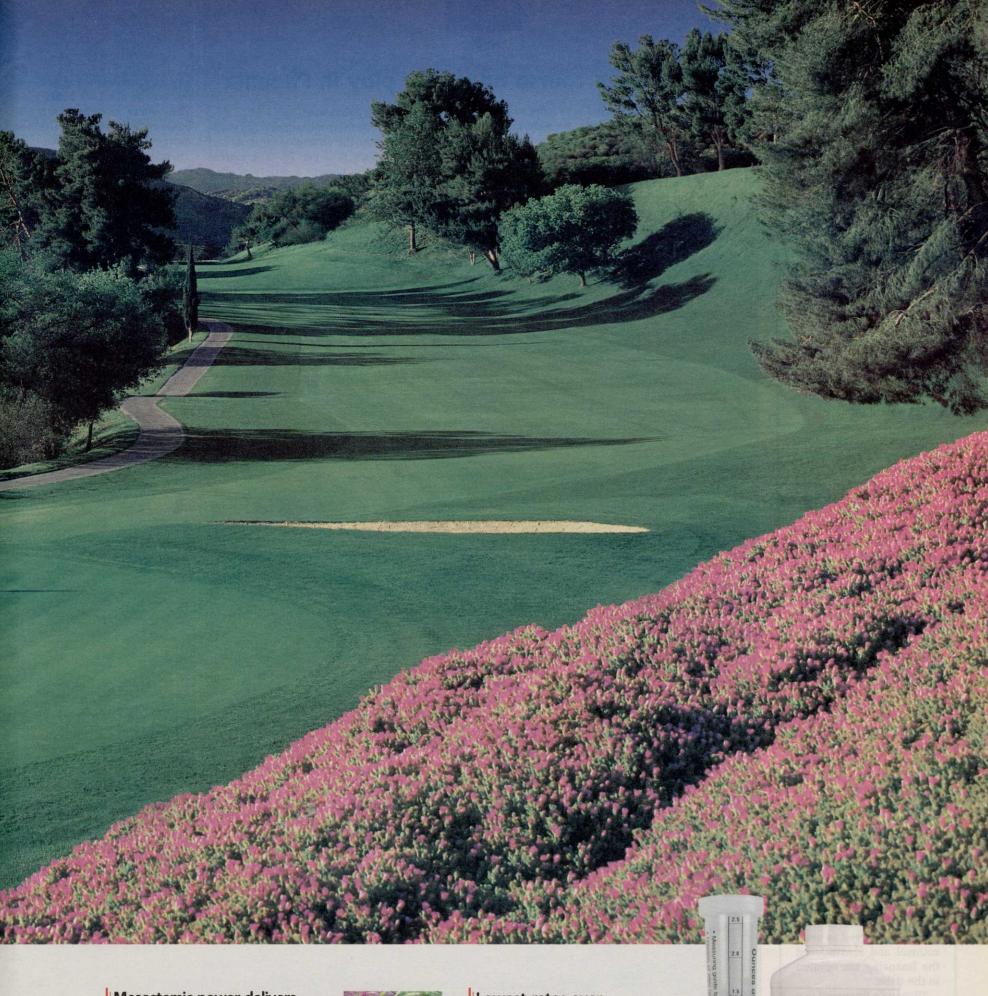
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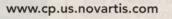
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Indians ready to build San Diego track

SAN DIEGO — The Barona Bank of Mission Indians, backed by \$18.9 million in municipal bond financing, will open an 18-hole golf course on the Barona Indian Reservation.

"This is a proud moment for the Barona Tribe — one that will go down as a milestone accomplishment in our history," said Clifford LaChappa, Barona tribal chairman. "Not only are we the first California Indian Tribe that we know of to secure multimillion-dollar Wall Street financing, but with this financing we will also become the first tribe in the San Diego region to open a championship golf course.

"This will help us grow and diversify our business, realize our dream of expanding Barona and enable us to continue to make an economic impact on the San Diego region."

Venture Catalyst Inc. (formerly known as Inland Entertainment), Barona's long-time Indian gaming consultant, served as the lead financing advisor. As the first publicly traded company to assist a California Indian tribe, Venture Catalyst began working with the Barona Bank of Mission Indians 10 years before the recent influx of gaming companies into the state and helped Barona grow its struggling Bingo Hall into a successful casino.

Seattle-Northwest Securities Corp. served as placement agent in the transaction, and two nationally recognized investment funds the offering. Latham & Watkins served as bond counsel and also offered the financing tax opinion to the tribe.

"Barona's financing is a watershed event in the gaming finance world. To our knowledge, it is the first tax-exempt financing, as well as the first golf course financing, to be completed on California Indianland," said Jesse Smith, vice president of Seattle-Northwest Securities.

The golf course is only part of Barona's \$150-million expansion plans, which also include a 125-room resort hotel and new casino-twice the size of the current casino.

Nash's Anthem course opens for play in Phoenix

PHOENIX — Phoenix-based golf course architecture firm Greg Nash Design's latest creation, Anthem Golf & Country Club, has opened for public play 35 miles north of downtown Phoenix in Del Webb's new Anthem community.

"This is a very special and unique desert golf course," said Nash. "The front nine was marred by a fire a couple of years ago, so we were given an opportunity to reconstruct and replenish the natural vegetation in order to bring back the land to its original state. Golf course construction crews and course superintendent Jay Pock have done an excellent job of replenishing the desert and building a challenging yet forgiv-

ing golf course."

Anthem measures 7,219 yards from the championship tees and plays to a par 72. The course offers players a variety of challenges and wide-ranging elevation changes as it twists and turns through the land's natural washes, canyons and valleys. Fairways, roughs and tees fea-

ture a hybrid Bermudagrass and the greens are L-93 bentgrass. The course features nearly 90 bunkers and five lakes. Greens average 8,000 square feet.

Open since Dec. 27, the country club will be open to the public until 80 percent of the 1,450 homes within the Anthem community have been sold, at which time the club will become private with 475 members.



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Colin Montgomerie to design Zhuhai Golden Gulf in China

Colin Montgomerie has signed on to design the golf course at the Zhuhai Golden Gulf project in Zhuhai, China. Located a short ferry ride away from Hong Kong, and just across the border from Macau, the 27 holes of golf at Zhuhai Golden Gulf will be part of a larger destination resort and real estate project being developed by Zhuhai Providence Real Estate Co. Ltd.

Zhuhai Golden Gulf will be the first golf course project on mainland China for Colin Montgomerie Design. He is designing the Haikou Meishi International Golf Club which is currently under construction on Hainan Island just off the mainland. Colin Montgomerie Design also is involved in golf course projects in Korea, U.A.E., Lanzarote and Ireland.

"Following my first ever visit to China last November, I am very pleased that my next design project will be at Zhuhai Golden Gulf." commented Montgomerie. "I have been very

impressed with the vision of the developer, Zhuhai Providence, for the overall resort project and am convinced Zhuhai Golden Gulf can become one of the best courses in all of China and we are designing it as a potential future venue of world-class golf tournaments."

Guo Zhi Hang, managing di-

rector of Zhuhai Providence Real Estate Development Co. Ltd., commented, "As our aim is to develop Zhuhai Golden Gulf as a world-class project in all aspects, we are very proud to announce our association with Colin Montgomerie and his design company to help us create a world-class golf course. Colin's dedication to perfection is reflected in his results as a professional golfer and we have also been impressed with his work to date as a golf course designer."

While initial earthworks have already begun on site, the actual golf course construction is expected to begin in the second half of 2000. The anticipated opening of the first 18 holes for play is expected by the end of 2001.

Pursell

Continued from page 3

Jim Pursell, PTI's chairman of the board, showed Fry and Welchel a rocky outcropping. "Once we saw those rocks, we decided to integrate the rocks into the hole," said Hurdzan.

FarmLinks will be a wide-open, parkland-style layout. There will not be any nasty white stakes unnecessarily constraining the big hitters. "There is no reason to have out-of-bounds," said Hurdzan. "Half the fun of the game of golf is to take a good whack at the ball. We want it to play fast and fun."

The lack of out-of-bounds markers should make it easier for youngsters learning about golf through the First Tee program to take their first whack at golf. The First Tee component will include a driving range, practice area, short-game area with hazards and a five-hole practice course.

According to David Pursell, once they pass the certification program, First Tee participants will be able to play the FarmLinks course for a nominal fee.

"I recognize that many kids do not have access to golf and we'd like to provide an opportunity for others to enjoy a game that we love," said Pursell.

Integrated into the FarmLinks First Tee program will be an environmental education center. Several environmental monitoring stations will be spaced throughout the site, allowing students to, for example, test the water quality of a stream as it enters and exits the property.

The course will also be used as a demonstration and testing area for PTI products and for the recreation of the company's guests. As a result, the course will not be open to the public at all times and Pursell plans to use price to control play.

Earthworks have already begun and Hurdzan expects that construction will be going full speed ahead come spring. FarmLinks is expected to open in mid-2002.

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- Weeds

- University Research
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Plus we added the ability for you to conduct configurable chats with your peers online, check DTN weather satellite and radar data, and send e-mail using your very own, personalized Golfsat e-mail account.

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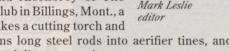
'Simple' oftentimes achieves what you want

EW ORLEANS - Surrounded by high-tech, Star Warstype innovations that are already rocketing superintendents into a futuristic realm of turfgrass maintenance, I found inventiveness and down-home wisdom in an interesting session at the 71st International Golf Course Conference and Show here. "What To Do When Your Budget's Not the Big Easy"

featured guys from nine-hole golf courses, from the middle or low-end of the spending spectrum - and by the end of their session, the level of respect in the room for these men had soared

Here, in the flesh, were represented the old phrase: "Necessity is the mother of invention.

Here was Gerald Aisenbrey of The Briarwood Country Club in Billings, Mont., a former farmer who takes a cutting torch and welder and transforms long steel rods into aerifier tines, and sheet metal into tee and distance markers



√ Here was John Baker of Pinecroft Golf Course in Gillett, Pa., who said: "I associate with geniuses and steal every idea I hear.

The best managers, Baker added, include everyone on the team. "Remember, the guy with the shovel will dig a lot harder if he is part of the decision to dig the hole.'

√ Here was Mike Evertsen of Traer (Iowa) Country Club, who with six other nine-hole course operators who couldn't buy a salesman's time" have co-oped to cut costs. "We represent more golf holes as a group than anyone in Iowa," he said.

The seven-course group also leases and rents specialty equipment together, moves a mobile reel grinder from site to site and even share some equipment.

"I saved enough money last year," Evertsen said, "to buy a new

√ Here was Dan Whitcomb of nine-hole Claremont (N.H.) Country Club, where Presidents Wilson and Coolidge were members, telling his colleagues how he had cut his expenditures on labor from 70 to 50 percent of the total, giving him 20 percent to use for new equipment. He is on a five-year rollover program on all his equipment, "and our dues have not increased in five

√ Here was Tom Russell, a certified superintendent who took charge of construction of Marias Valley Golf and Country Club in Shelby, Mont., and found ways to cut costs - such as creating burn piles, consolidating them into one, and then burying it. His suggestion: "Work out a compensation package up front. Then the 15-hour days, back-breaking work, etc., won't seem so bad."

√ And here were superintendents presenting solutions to the nationwide plague of finding seasonal help.

From Whitcomb: Check firemen, medical technicians, ski patrolmen and instructors. who work four days on, four off.

From Evertsen: Check with the state regarding "special needs" people. "The state pays my guy. It costs me nothing," he said, adding that the person is an excellent worker.

It all points to the old refrains "Simple is best" and "Think outside the box.

That is what has set the profession of golf course superintendent, whether "old-school" or new, apart from so many others. It was good to see that characteristic is still alive and well.

Brent Wadsworth, who for a long time was an editorial advisor for Golf Course News, was a stitch in his speech accepting the Don A. Rossi Award from the Golf Course Builders Association of America. The man who formed Wadsworth Golf Construction Co. in 1958, virtually creating the course building business, said that when he started in the industry there were real sand greens that were oiled and flat so the ball could roll smoothly; there was no testing of greens mixtures; galvanized pipe was run from the water source to greens and tees only; and there were no electronics, no ires, no hybrid grasses.

"But best of all," he said, "there was no EPA, no INS, no OSHA, no Corps of Engineers, or archaeological inspection requirements. In fact, no permits for anything. It was a wonderful world!"

Giving a jab to his course architect friends, who a few years ago honored him with the Donald Ross Award, Wadsworth said: "My wife, Jean, has always been very frugal. She proved that when she started wrapping my lunch in golf course plans — because I had told her 'plans don't mean a darn thing.'

International Summit needs participants to improve impact

or me, one of the most interesting sessions to cover at the Golf Course Superintendents Association of America Interna tional Conference & Show has been the International Summit

Basically, a dozen or more indivividuals representing superintendent and golf associations from around the world sit at several

tables and, in turn, summarize what has happened in the golf industry during the past year in their respective countries and where they see the future of golf going.

For the participants, there is usually a wonderful exchange of ideas and suggestions. For me, there usually results a notebook full of story ideas to chase down for issues of Golf Course News and Golf Course News International.



Peter Blais managing editor

Usually.

For some reason, this year's Summit drew representatives from only a half-dozen countries - less than half the usual number. Those in attendance recounted the past year's events in record time, heard a GCSAA presentation regarding educational possibilities over the Internet, and then seemed to look at one another, wondering what to do next

Finally, one of the German representatives asked the obvious question: "Where the heck is everybody?"

Germany, Ireland, Sweden, Norway, China and Canada were there. But where were representatives from South Africa, England, France, Malaysia, Japan, Argentina, Chile, Italy, Indonesia and other countries that had taken the time to attend past International Summits?

Undoubtedly, some were on the trade show floor. One representative mentioned that the scheduling conflict may have kept several people away. GCSAA representatives promised to research alternate times for future summits.

Another representative wondered if the lack of a more formal agenda might be a reason for the poor attendance. A few heads nodded in agreement.

Every year, GCSAA provides this forum for those in the golf industry to find out what is happening on this ever-shrinking globe. To pass up such an opportunity seems a shame.

Canadian Golf Superintendents Association Executive Director Vince Gillis offered to help put together next year's agenda and invited input from those interested in making the International Summit a more useful tool.

Anyone interested in the future of golf worldwide should give Vince a call. He can be reached at 905-602-8873.

Just returned from the GCSAA conference, Jack is catching up on his paperwork when...



"Boy, do I envy you! All the golf you must get to play!"

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Multi-disciplined approach to planning and constructing is essential

oday's golf course developer can face a seemingly endless approval process, which begins with finding a site that has the right physical attributes. The best parcels of land on which to lay out a golf course include diverse topography and vegetative cover, and on these lands, one usually finds an array of soil types, watercourses, surface waters and wetlands. In these times of environmental awareness, the desire for a great site that is comprised of these features comes with the challenge of a myriad of local, state and federal environmental regulations.

The irony is, the best land for golf course design is often riddled with bureaucratic red tape.

In the most heavily regulated locales, and in extreme cases, a given site can have wetlands jurisdictions based on various criteria such as vegetation, soils, hydrology and habitat, leaving a site with as many as three distinct wetland delineations. If the site includes enough acre-

A. John Harvey is a member of the American Society of Golf Course Architects and a design associate with The Roger Rulewich Group in Renardston Mass.

age, and its natural features are environmentally sensitive, the easiest way to work with wetlands is to avoid them. This is the "Party Line" of the regulatory agencies. However, the natural landscape is comprised of an infinite number, arrangement and complexity of wetland configurations. Much of the

earth's landscape is compartmentalized by wetland systems, isolating non-wetland land forms into irregular sizes and shapes. Therefore, strict avoidance is not always an option.

The golf course architect's mission is to route the best layout with the fewest impacts possible. Where the plan comes into conflict with regulated areas and avoidance is not entirely feasible, the project design team becomes complex in the effort to meet the project's goals and objectives while standing on an environmentally sound premise. Such a team must include the golf course architect, along with a civil engineer, surveyor, ecologist, archaeologist, hydrologist and turf grass scientist, all of whom must wrestle with the site plan to get the best golf course given the site's constraints.



Evaluating the options to solve problems frequently results in compromise on both sides of the aisle, leading to numerous iterations of the preferred route plan. Through this iterative process, the team must find a course that is a good, playable, challenging and a fair test of golf, while also being environ-

mentally responsible.

Many regulators do not play golf or have any knowledge of the general principles and traditions of the game. It is important for the architect and design team to meet with the reviewing agencies during the planning process to fully explain the rationale for design concepts and to educate the environmental decision-makers about golf and the project's necessary impacts. Field walks are useful to show agencies the design on a hole by hole and impact by impact basis, but the process is also a two-way street.

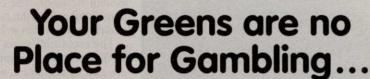
The designer also must have an understanding and respect for the intent of the regulations. It is important for the architect to listen to the regulators during the planning process, especially on the field walks. Many times critical issues are casually discussed on site and the design team is able to "read" the reactions of the agencies to particular impacts, and find solutions to specific problems.

Once people reviewing the project start to understand the game and the architect's objectives for certain impacts, the designer is more likely to find that his/ her plan moves forward in the regulatory process. However, as can often occur, when the designer feels modifications cannot be made without significantly jeopardizing the quality of the course, the team must recognize the need to provide additional justification for the proposed impacts.

Wetland impacts are strictly defined as grading or filling. This is where a portion of the proposed course requires excavation or filling of existing wetlands to meet the needs and dynamics of golf hole design. Often, a layout proposes filling slivers or fringes of wetlands. Rarely is it necessary to completely fill or excavate large segments of these resources.

Other potential wetland impacts need to be evaluated, including tree canopy removal, flooding and habitat conversion. Tree canopy removal is achieved by hand clearing vegetation down to an often ne-

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Harvey on teams

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gotiated height, in order for the golf hole to offer the player an unrestricted line of sight from one side of a wetland corridor to a target on the other side. This is called a "play-over" or "forced-carry". The height of vegetation to remain is based on the topography within the wetland floor and the shot required to and from

the surrounding up-land golf area. These areas require a program of on-going maintenance by the superintendent and ecological consultant to ensure future playability of golf holes while maintaining wetland quality. Flooding of a wetland means exactly that, raising the water elevation, to create or enhance a water hazard or irrigation pond. Habitat conversion means altering an existing wetland from one

type to another. For example, digging out a portion of a marsh to create open water or cutting trees from a forested wetland to make a shrub swamp for play-over.

The process of negotiating these activities can be costly and time consuming for the developer, sometimes taking several years.

If the project requires wetland impacts, it will be necessary for the development team to perform an alternative site analysis. This is a study of similar parcels of land, on the market or privately held, within the project vicinity which meet the program criteria of the project. This can be an exhaustive task that identifies whether these tracts of land can serve as the site for the course. Often they can be eliminated one by one, but on rare occasions, they qualify.

When the regulators eventually agree on the proposed site and golf course layout as supported by scientific, golf and artistic documentation, then onsite mitigation for environmental impacts is the measure used to compensate for alteration of the site's existing wetlands. This is the last resort offered by environmental law. Many states have a predetermined mitigation ratio for various types of wetland impacts, such as grading, filling, tree canopy removal, flooding and conversion.

Building mitigation areas must be dovetailed with the site's earthwork and the phasing of the project, in order to be properly built and adapted to the site's substrate, local hydrology and golf. The ecological consultant is the key team player in producing detailed construction and planting plans to create a wetland.

Equally important is the earthwork and shaping contractor's experience in not only moving earth and shaping golf courses, but also constructing wetland mitigation systems. Once the project is completed and fully grown in, the mitigation areas must be surveyed and inspected to ensure compliance with the permit conditions that require fully functioning and successful wetlands. The ecological consultant and permit authorities closely monitor this work.

The transition areas between wetlands and open-water areas are strictly regulated, with jurisdictional setbacks that can extend inland from 25 to 200 feet, representing additional planning obstacles. These buffers vary from state to state and wetlands to wetlands, depending upon the resource value of the particular ecological system. For example, trout streams typically have wide buffers attached to their corridors. When a golf course layout may affect the habitat that supports a protected species it is necessary to prove to the agencies why tree clearing and grading within these buffers is required to meet the playability demands of the golf course.

Wildlife habitats that are truly sensitive are quickly becoming a tricky regulatory issue in site planning because the resource is difficult to quantify and qualify during the site inventory, research and documentation phase. This, and wetlands, issues will be two of the most difficult tasks facing government, the scientific community, and the developer in years to come.

In order for the developer to receive permission to commence construction of a golf course on an attractive, yet sensitive site, he or she must assemble a highly qualified, multi-disciplined consulting team that can assist the golf course architect in producing well conceived and scientifically supported plans. This can be an expensive and time consuming process, but it is essential for successfully planning and building a golf course in today's environmentally aware society.



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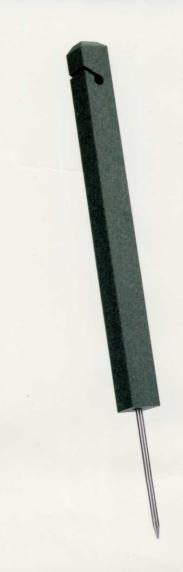
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CHANGING THE COURSE OF GOLF.

Brent Wadsworth points to integrity in accepting builders' Rossi Award

By MARK LESLIE

EW ORLEANS — Citing him for "single-handedly inventing" the course construction business, Golf Course Builders Association of America (GCBAA) President Bill Kubly presented Brent Wadsworth the 10th annual Donald A. Rossi Award here, Feb. 18.

Speaking at the GCBAA awards dinner, Kubly said Wadsworth Golf Construction Co. has "stood out like the Empire State Building among two-story buildings. In an industry as fragmented as ours, Brent Wadsworth has managed to keep his company at the top of the industry as long as the industry has been around... Without him, many of us would not be here tonight. It is time that we, the golf course builders, honor our best."

The Rossi Award honors the memory of the former executive director of the association.

Golf course architect Arthur Hills said of Wadsworth: "His employees and friends know



Brent Wadsworth

that he will encourage them, challenge them, sometimes needle them and at other times put you on the spot. And even, at times, he will exasperate you. Yet he is beloved to everyone who knows him.

"One trait stands out, and that is his integrity. You know always that he and all his employees are going to do every last thing they can to make every job as

good as it can be. His company has always prospered, but prosper or not, each course is impeccably done and sometimes at a loss of a great deal of money."

Brent and his wife, Jean, also established The Wadsworth Golf Charity Foundation three years ago to give grants that make "the characterbuilding attributes of the game more accessible to more people, with the ultimate goal of making the world become a more honorable, gentler place."

"It seems he has been fostering those goals durng the 40 years that I have known him," Hills said.

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Gary Grigg, left, with Robert Trent Jones Jr. at GCSAA conference.

GCSAA past president joins Jones Jr. company

By MARK LESLIE

NEW ORLEANS — Gary Grigg has joined Robert Trent Jones Jr.'s Greenscape Ltd., which will make a major effort to restore Robert Trent Jones Sr. golf courses around the world.

As opposed to contracting, the new venture is primarily a service, providing Grigg, shapers and supervisors to construction sites in conjunction with the firms installing irrigation, drainage, etc.

"We will package each deal according to the needs of the owners," Jones Jr. announced at the GCSAA conference here. "We will continue doing a select number of new courses worldwide, as we always have. Gary and [course designer] Al Furber will supply a service of shapers and supervisors to the projects under construction. But secondly, we want to continue the legacy of my father, who started in the '30s, and carry on our work and the family tree. The brand name Robert Trent Jones is a recognized name. To maintain the integrity of his philoso-

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Best Builders MacCurrach, Miller cite employees

By MARK LESLIE

NEW ORLEANS — Allan MacCurrach III of MacCurrach Golf Construction, Inc. accepted the annual Golf Course News Builder of the Year Award, and Louis Miller of Golf Development Construction the Best Small Builder of the Year Award during a banquet held

here by the Golf Course Builders Association of America (GCBAA).

The award-winners were determined following surveys taken from golf course developers, architects and superintendents on projects completed in 1999.



Allan MacCurrach

Louis Miller

MacCurrach, who three years earlier won the Best Small Builder Award, thanked the Lord and the "many, many people" who have been helpful to MacCurrach Golf.

His Jacksonville, Fla.-based company, he said, "has really been blessed. We used hard work to survive. We have trans-

formed that hard work into success. It's an extra compliment that developers, architects and superintendents like our work."

Among his employees, he cited "Twin Towers"

Continued on page 14

Ultradwarfs:

Know the positives and negatives, says Kloska

By MARK LESLIE

NEW ORLEANS — Know your golfers, is perhaps the most crucial advice when considering installing one of the new ultradwarf Bermudagrasses.

Though superintendents looking for a 9-1/2 to 10 roll on their Stimpmeter might jump at the chance to plant the ultradwarfs on their courses, perhaps their golfers want a less-slick surface, said Rob Kloska of Jupiter Island Club in Hobe Sound, Fla.

Kloska spoke on "Choosing Ultradwarfs for Greens," drawing on his own experience. In June 1998 he planted all seven varieties on one green: Champion, Tifeagle, Floradwarf, MS Supreme, Mini Verdes, along with the standard dwarf Bermudas Tifdwarf and 328. Champion and Mini Verde were developed in Texas, while Tifeagle hails from Georgia, Floradwarf from the University of Florida and MS Supreme from Mississippi.

The new ultradwarfs, Kloska said, offer many advantages, but those may be negated by disadvantages — notably the

need for intensive maintenance and their intolerance to shade.

Kloska listed a number of grow-in and maintenance tips for superintendents choosing ultradwarfs. But first, he suggested weighing certain factors, including the importance of a uniform root zone, and excellent irrigation and drainage.

"Older greens," he said, "are not designed for these [fast] Stimpmeter readings. Increased green speeds also mean fewer cupping areas."

Shade and lack of air movement will be the most difficult problems if the ultradwarfs are planted, he said, adding: "And if you have adequate staff and can do intensive care, it will be an easier transition. For us, it was not difficult, but for other people it will be."

Extra walk-behind greens mowers will be needed, and a good mechanic is important because more sharpening and grinding is required. "He will have to maintain a cutting height of .145 and as low as .110 or .100 inch," Kloska said.

Continued on page 20

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Wadsworth

Continued from page 13

Wadsworth said that since he formed his company in 1958, the cost of new courses has risen from \$100,000 to millions.

"These past 50 years have brought many opportunities," he said. "Proof of that is right here in this room tonight. This great game is fundamentally why we are here. It is the foundation of our existence. It is wonderful that so many people can play this game throughout their whole lives. It's an intensive game, a devoted game..."

Wadsworth, who once called architect's renderings "cartoons," added a couple of goodnatured digs at architects.

"Builders now have to accept a new meaning for the word 'responsible,' " he said. "It means 'pin everything you can and anything you can on the builder.' "

"But we need them and we need each other," he added. "Think of it this way: They are designing today's golf courses that are going to be tomorrow's rebuilding opportunities."

Asked recently what was needed to start a course construction business. Wadsworth joked that he answered, "Four things: a ruler to measure an owner's pockets for his ability to pay for the work; a level to make sure the grades are uneven so architects can tell you what you are doing wrong; a crystal ball to know when to run for cover from a natural disaster; and a pocketful of cash to cover the losses you are going to incur regardless of all the trust you put into people's intentions."

Wadsworth cited the GCBAA's original organizers, whom he called "bold people who understood a need for a growing industry." He singled out Jim Kirchdorfer, the one remaining founding member in the 28-year-old organization, and Perry Dye, who financially kept it alive when it was in trouble in the late-1980s and early 1990s.

And he thanked his employees who, he said, are the best. "Your long-standing devotion to my business principles are recognized, and I will always be thankful to you," he said.

"Most importantly," he said, "please remember: first, the game of golf, support it. Second, the builders association, support it. Third, be patient, be persistent and be what the game is all about — perform in a gentlemanly manner. If we follow those thoughts we have a bright future."

Arnold's last hurrah at GCBAA

NEW ORLEANS — The Golf Course Builders Association of America dinner here marked the last major function for outgoing Executive Vice President Phil Arnold, who is leaving to start his own golf photography business, Golfscape Photography, in Chapel Hill, N.C.

Outgoing President Bill Kubly of Landscapes Unlimited credited Arnold as the driving force behind the GCBAA's growth, over the last nine years, from 60 to 280 members and from a revenue of \$50,000 to \$500,000 per year.

Best Builders: The best you can be

Continued from page 13

Brian Almony, the general manager, and Tom Webber, a project superintendent, along with senior construction superintendent Chris Lapanto and superintendents Doug Seldon, Jeff Tourangeau and Chris Kleinsmith.

Meanwhile, Louisville, Ky.-based Miller said, "This is just an incredible honor from *Golf Course News*."

He paraphrased astronaut Chuck Yaeger as saying, "If you like to do a job, some day you get to be real good at it."

And he added that his "inspiration from the beginning came from Brent Wadsworth," president of Wadsworth Golf Construction Co.

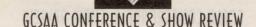


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Grigg, Jones Jr. to 'refresh' Jones Sr. golf courses

Continued from page 13

phy ... we want to offer those courses that want to maintain that brand name an opportunity to upgrade, remodel, refresh."

Indeed, Jones Jr. will proactively contact all the Jones Sr. clubs and offer them his services. "We will ask that they not put in new irrigation systems or

make other changes without thinking of the authenticity of the course," Jones Jr. said. "Gary will take the lead with the restorations. We need him to help the club and superintendent, to give them a comfort level."

Grigg, who has overseen construction of 24 courses including Jones Sr.'s Lodge of Four

Seasons at Lake of the Ozarks in 1970-75, will be responsible for the renovations. The former president of GCSAA supervised construction of 16 courses during 10 years with Kindred and Co. of Houston. Among those was the Jones Jr.-designed Sentryworld Golf Course in Stevens Point, Wis. And he most

recently renovated the 36 holes at Royal Poincienna in Florida, while serving as the club's superintendent.

"This will be an exciting and rewarding challenge," Grigg said. "I have so much respect for the Jones family and golf course architects in general and what they have contributed to the game of golf ...

"I intend to do whatever is necessary - agronomic consulting, greenkeeping consulting, grow-in..."

Jones Sr. has designed more than 500 courses, and Jones Jr. pointed out that if his firm, RTJ II, and Greenscape restore one percent a year, "that would be sufficient to keep us busy."

Jones Jr. related his restoration efforts to the controversy over who can best restore Donald Ross's designs and those of other classic architects.

"If my father's two sons and their team aren't his most authentic 'understanders,' then who is?" Jones Jr. asked. "It's our intent to try to authenticate Jones Sr.'s style."

His brother Rees, whose Rees Jones Design has also remodeled some of their father's work. is not involved in this business.

Jones Jr. pointed out that he worked for his father at the height of his career - at Spyglass Hill [in California] and Mauna Kai [in Hawaii], and ran errands at Baltusrol in the

"I obviously absorbed the philosophy," he said. "With Gary and his knowledge of all the technical issues, we have a lot to offer.

Jones said he may alter some of the playing characteristics to recognize the changes in equipment. "For example," he said, "we might put a bunker out at 280 [yards from the tee] instead of 250, where he was putting them. But it will have the same look. And it will be in the bracketed form, or whatever form he was using at that particular time.'

The Joneses have all the old Jones Sr. plans in a library in Ft. Lauderdale [Fla.].

"The great golf courses are built in the field," Jones Jr. said. "You can do architectural wonders with earth-moving equipment today that is dramatic and catches the attention of periodicals, but sometimes you can't maintain it. So the Joneses have always had three basic points of view: strategic design, technical consistency (drainage, drainage, drainage) and maintainability."

Meanwhile, RTJ II intends to design about eight new courses a year, instead of the 15 or 16 of the past.

"I intend to be more handson," Jones Jr. said. "I agree with [architect] Bob Lohmann, who said architects have to get back to giving service in the field.

Also, Jones Jr. also announced that designers Furber and Bruce Charlton now own equity in the company, and it has formed an alliance with course builder Weitz Golf.





ed from summer stress, too.

to fight off disease. The key to a successful summer stress control program is to make your first application of SIGNATURE" earlybefore turf begins to undergo stress. Then, keep adding SIGNATURE" to your fungicide tankmix every two weeks throughout the hot summer months. Remember the summer of '99, and keep your turf green and healthy with the one-of-a-kind performance of CHIPCO® SIGNATURE." It makes a difference you can see.



GCSAA CONFERENCE & SHOW REVIEW

Hetrick: Certification a crucial issue

Continued from page 1

recognized right along with the architect.'

Hetrick said the GCBAA certification program rivals that of the Golf Course Superintendents Association of America. "If I develop a golf club, the first thing I'm going to do [when searching for a superintendentl is see if there is a certified golf course superintendent I can get. But that's not the way things are done in the golf course construction industry. My objective is to get everybody [in the association] certified and get the architects to hire certified builders."

Hetrick recently replaced Executive Vice President Phil Arnold, who left after nine years with the builders organization to start his own golf course photography firm.

"The builders association has made huge strides since Don Rossi started the organization and Phil Arnold picked them up," Hetrick said during a recent interview at the GCSAA International Conference and Show.

"I admire Phil's ability to get so much done and defer praise to others," said Hetrick, who also noted the work done over the years by Arnold's assistants, Susan Monk and Molly Heiser. "When Phil announced his decision [to leave GCBAA], I jumped in with both feet."

Hetrick, 50, grew up in northwestern Pennsylvania. He played his first round of golf in his early teens with a borrowed set of wood-shafted clubs, much to the amusement of his golfing buddies. "That might have been a defining moment for me, Hetrick said. "I became determined to learn more about the game and play better."

Hetrick spent four years in the Navy before enrolling at Duquesne University. After school, he worked as an assistant pro and enrolled in the PGA Apprentice Program. He also caddied on the Ladies Professional Golf Association Tour for such noted golfers as Jane Blaylock and Iako Okamoto. Hetrick carried the winning bag at four LPGA Tour stops.

"When you're a caddie, you lose all sense of your own performance," Hetrick recalled. "The score you get at the end of the a round may not be at all indicative of how you performed. A 69 is a 69 and a 79 is a 79. Sometimes that's hard to swallow. Your life is out of your control."

Eventually Hetrick gave up caddying, completed the apprenticeship program and worked as head pro at clubs in Florida, Texas and Arizona. But a bad back forced him out of the golf pro side of the business.

"That's when I met a young

course architect who was sent to the West Coast to make Art Hills famous, Keith Foster," he said.

Through his friendship with Foster (the two served as best man at each other's weddings), Hetrick learned the nuts and bolts of course architecture and construction. Under Foster's tutelage, he was an assistant superintendent at Walking Stick

Golf Club in Pueblo, Colo.; assistant construction superintendent at The Hyatt Hill Country Resort in San Antonio, Texas; project superintendent at The Legacy in Thailand: and design associate on a number of projects working out of Foster's St. Louis office.

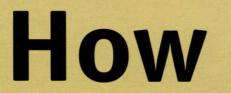
"I coordinated a great project in Euless, Texas, called Texas Star," Hetrick said. "Keith energized a city that many used to jokingly call 'Useless.' No one thinks it's useless anymore."

When Foster decided several years ago to slow the growth of his business, Hetrick accepted a marketing position with Jacklin Golf. Hetrick, Eric Nelson and Jim Connolly represented the seed company in its dealings with course architects and builders.

Hetrick said his knowledge of architects, and how they make things happen in conjunction with builders, were important

factors in the GCBAA board selecting him from a strong field.

While his long-term goal is greater recognition for his employers, his short-term goal is to move the association from its present headquarters in Chapel Hill, N.C., to his home in Lincoln, Neb. Hetrick offered Monk and Heiser the opportunity to stay with GCBAA and relocate to Lincoln, but they chose to remain in North Carolina.



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> the tines come out of the ground, the Flexi-Link pushes the tine leg forward into position for the next downward stroke.

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produce as many as 900,000 holes per hour in a coring swath of 57.5 inches.

The Aercore 1500 can



Woodhead, new officers take posts

Continued from page 1

ors were Ken Mangum of the Atlanta Athletic Club and Jon Maddern of Elk Ridge Golf Course in Atlantic, Mich.

Sam Snyder VIII of Hercules Country Club in Wilmington, Del., resigned his director position, effective at the conclusion of the 2000 Conference & Show,

with one year remaining in his term. Tim O'Neill of Country Club of Darien (Conn.) was appointed to serve Snyder's remaining one-year term.

Mark Woodward of Dobson Ranch Riverview Golf Club in Mesa, Ariz., will serve the second year of his two-year term in 2000-01.

One additional director will be appointed to serve the remaining one year director position created with the election of Wallace as Secretary/Treasurer.

In other GCSAA news:

· Although the final audited figures have not be determined, unofficial attendance figures for the Conference & Show include

registered education seminar attendees, 7,903 (surpasses record of 6,999 in 1999); attendees, 21,686 (record of 22,623 in 1999 Orlando [2000 marks 4th highest all-time]); exhibitors, 757 (surpasses record of 740 in 1999); exhibition space: 267,000 square feet (surpasses record of 246,500 in 1999).

How do the Conference & Show attendance totals compare to a decade ago (1990 in Anaheim)? That year, 17,071 attended, with 534 exhibiting companies and 170,000 square feet of floor space. Twenty-five years ago (1975 in New Orleans) 4,861 attended.

· Todd Barker, golf course superintendent at Fore Lakes Golf Course in Taylorsville, Utah defeated Paul lett of Pinehurst No. 2 (N.C.) Resort by paring the second playoff hole of the 50th GCSAA Golf Championship in Moblie, Ala. Barker and Jett both recorded first-round scores of 73 at Kiva Dunes Golf Club and second-round totals of 76 at the Magnolia Grove Falls Course to go to the sudden death playoff with five-over-par scores of 149. It was a bit of deja vu as Barker won his first GCSAA title in 1995 at Monterey, Calif., while Jett was also the runnerup. Barker's father, Vaughan, was the 1977 GCSAA Golf Champion. The vounger Barker also is the 1997 Utah state amateur titleist.

· Chief Executive Officer (CEO) Steve Mona has been selected to serve on the Golf 20/20 Conference Steering Committee executive board along with Jim Awtrey (PGA of America); Joe Beditz (National Golf Foundation); David Fay (USGA); Tim Finchem (PGA TOUR): Michael Hughes (NGCOA) and Ty Votaw (Ladies Professional Golf Association).

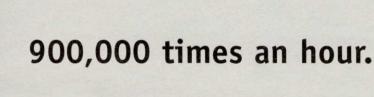
The conference, to be conducted Nov. 17-19 at the World Golf Hall of Fame, brings together the golf industry to address the future of golf in a strategic manner, with an emphasis on accelerating the growth over the next 20 years and creating new avenues of access into the game.

• GCSAA will have a presence at the 2000 Kmart 400 NASCAR race, June 11 at the Michigan Speedway in Brooklyn, Mich. Chad Little's No. 97 car, sponsored by John Deere, will feature the GCSAA lettermark and logo on the trunk of the Roush Racing Team vehicle.

 Representatives from the National Football League (NFL) and Major League Baseball (MLB), plus grounds directors from 43 NFL/MLB franchises met at the 2000 GCSAA Conference & Show.

Executives attending included MLB Executive Vice President of Baseball Operations Sandy Alderson, NFL Assistant Director of Game Operations Tim Davey and NFL Players' Association Regional Director Clark Gaines. Sponsored by Toro and TURFACE, the Professional Sports Turf Symposium exposed professional grounds directors to the products, services, education and research that has been em-

Continued on page 20







Powered by an 18-hp Kohler engine, the Aercore 800 can punch up to 582,400 holes an hour in a coring swath of 31.5 inches.

on the hole top. This is accomplished by the speed at which the tine rams operate and the Flexi-Link design.

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Woodhead, GCSAA move ahead

Continued from page 17

ployed by the golf industry.

• Former U.S. Open champion Jerry Pate and Kohler Co., CEO Herb Kohler were elected to the positions of GCSAA Foundation Board of Trustees chair and vice-chair beginning in August.

Former USGA Executive Committee member Ray Anderson will rotate off the board, with his spot being filled by Thomas Chisholm, vice president of automotive marketing with Eaton Corp. The "Investing in the Beauty of Golf" endowment campaign has reached the \$3.7 million mark, with a goal of \$5 million (increased last year from the original \$3.5 million target).

A new GCSAA Foundation mission statement was also approved: "The GCSAA Foundation enhances the game of golf through funding applied research and advanced education in golf course management.

The remainder of the GCSAA Foundation board of trustees includes GCSAA representatives Woodhead, Witt, Wallace, Fearis and Mona as well

as course architect Tom Fazio, former PGA of America President Joe Black, Toro Co. Vice President Michael Hoffman, and PGA Tour Senior Vice President of Communications Bob

• Iowa State University claimed the title at the sixth annual Collegiate Turf Bowl Competition conducted at the Conference & Show. It was the second consecutive honor for the school.

The winning team is advised by Dr. Nick Christians, professor of agronomy and featured students Kirk Golinghorst, John Lavelle, Aaron Patton and Chad Wilson. The event was a two-hour test requiring a written Q & A, math problems, and identification of soil, seed and weed samples. Students from Michigan State and Kansas State were second and third, respectively.

- Earlier this year, GCSAA membership topped the 20,000 mark for the first time.
- The 72nd International Golf Course Conference & Show is set for February 12 - 18 in Dallas.

Ultradwarfs reach new goals and offer more challenges

Continued from page 13

He said the "positives" of the ultradwarfs are numerous:

- When cut at the right height, its density is excellent.
- Its denser grass allows for a smoother surface.
- In some cases it eliminates overseeding. "But I caution you not to use that as a selling point," he warned, "because the money you save there must be used in other places, like for additional walk mowers, sand, fertility..."
- It allows 419 Bermudagrass to be grown on collars without encroachment into the greens. "That's an excellent, excellent characteristic," Kloska said.
- It moved lower. "If you have Snowbirds who want fast greens even in the winter, this is an option." he said.
- It will maintain its color in cool weather, when soil temperatures get down into the 50s, "whereas with Tifdwarf you see discoloration in the 50s," Kloska said.

On the negative side, he listed:

- Accelerated thatch build-up. "I highly recommend that you be proactive about this," Kloska said. "Watch nitrogen levels and take care of cultural practices aerification and top dressing.
- Much slower ballmark recovery because ultradwarfs do not grow laterally.
 - · Intensive maintenance.
- · Very poor shade tolerance.

To grow in the ultradwarfs, Kloska suggested:

- Sprig heavily: 30 bushels per acre. "In 10 days we were verticutting and mowing," he said. "Get the height of cut down to 1/8 inch as soon as possible. We did it in eight weeks."
 - Spike frequently: twice a week.
 - · Top dress lighter and more fre-

quently: twice a week.

- Fertilize more frequently: every three to four days instead of once a week.
- Consider buying a water injection aerifier. "It's very important," Kloska said.
- Mixed Nitriform and coated potash. "It will help you wonderfully."

Kloska's management tips included:

- Do more grooming instead of deep verticutting.
- The N-K ratio should be 1:2 or 1:3 in the summer and 1:5 in the winter.
- In the cold weather, aerify twice a week.
- Use finer fertilizers. "In some cases, the grass is so tight, fertilizer has a hard time getting in," he said. "You will do lighter and more frequent top dressing. We have gone so far as putting sand out with a rotary spreader. Even at that, we water heavily that night and hope it gets the sand down in."
- Because of the impact of the turf's density on water infiltration, a water aerifier is "extremely important."
- Aerify with smaller tines more frequently in the summer.
- Remember that ball marks heal more slowly.
- Monitor the surface temperatures of greens in the summer. "Remember you are top dressing every week and there is a lot of sand on top of that green. Also, you're moving low at .150 or .130," Kloska said.
- Watch for disease, particularly during tropical weather patterns, and especially on stressed turf. The disease will show up where stress is occurring shaded, scalped and heat-stressed areas.



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Much Less Thatch Buildup Than The Other Superdwarfs

Thatch buildup is highly detrimental to greens. It produces grainy putting surfaces, inconsistent ball roll and can result in a sub-surface micro-climate which is conducive to disease and organic layering. Thatch also makes it more difficult to establish and maintain uniform stands of overseeded grass. TifEagle not only produces less thatch than the other superdwarfs, it's very forgiving when subjected to aggressive management. In fact, TifEagle can tolerate 2 to 3 mowings per day at heights as low as 1/8"with no loss of stand density. Insist on TifEagle.

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Ryan rolls out new GA-60 aerator series

The new Ryan GA-60 PT and updated GA-60 aerators are designed to deliver efficient, quality aeration on golf course tees, greens and fairways and sports fields or other large turf areas.

Manufactured by Textron Turf Care and Specialty Products, the Ryan GA-60 PT is PTO-driven and requires a 25to 45-PTO-horsepower tractor. The



The Ryan GA-60 aerator makes tracks

Ryan GA-60 is powered by a Cushman 33-hp liquid-cooled engine and towed by a Cushman Turf-Truckster or Jacobsen system vehicle. The 60-inch coring width of the GA series aerators makes them highly productive, up to 1.1 acres per hour.

Eight independent aeration heads contain 24 individual coring tines for high-quality results. Both have coring patterns of 3.75 inches by 3 inches or 3.75 inches by 6 inches, with tine penetration up to 4 inches.

Other features include spoon, coring, solid and VenTine tines and a quint tine option with turf hold-down and depth-adjustment rods, located at the top of the unit, to help the operator monitor coring depth during aeration.

For more information, contact 888-922-TURF.

Deere adds lightweight mowers

The new John Deere 3215B and 3235B lightweight fairway mowers perform sharper cuts with improved grass-clipping dispersal for healthier fairways.

A new ball joint and yoke design for standard cutting units improves the grass catching performance on both fairway mower

models. The 3235B machine maintains the rotate-for-service feature on the ESP cutting reels. A new bedknife-to-reel adjustment, coupled with a new triple pump, increases the cutting power and function. In addition, the standard micro-lap backlapping with reel speed control provides state-of-the-art sharpening for a clean, precise cut. The new fairway tender conditioner and rear-roller power brush attachment improves grass clipping dispersal when mowing fairways. As



John Deere's lightweight 3215B fairway mower.

a result, the rear rollers will be free of material buildup, less clumping will occur and the fairway will experience less thatch buildup. The mowers feature a 31.5-hp engine on the 3215B and a 38.5hp engine on the 3235B. Electric fans reduce the noise levels for less disruption on the course.

For more information, contact John Deere Inquiry Department, PO Box 12217, Research Triangle Park, NC 27709





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NEW PRODUCTS FROM THE GCSAA SHOW



The Verti-Drain 7007.

The new, versatile Verti-Drain 7007

Redexim Charterhouse introduces a new deep time aeration model, the Verti-Drain 7007. The 7007 has the walk-in-front versatility and maneuverability for the superintendents who only use pedestrian machines on their greens. The 7007 also incorporates the convenience of ride-on ability to quickly get operators to the next green. The unit deep aerates and cores down to 6 inches deep.

For more information, contact 800-597-5664.

LESCO ready with NOVEX fertilizer line

LESCO introduces a new line of controlled-release fertilizer called NOVEX.

By maximizing the nitrogen best suited to growing quality turfgrass and minimizing the nitrogen that is of little value, NOVEX brings agronomic and economic efficiency to the professional turf maintenance market. The NOVEX products are classified as aminoureaformaldehyde. What makes the technology unique is its ability to

N-VEX.

decrease the inefficient quick-release unreacted urea and the very slow-release hot water-insoluble nitrogen, while increasing the highly efficient controlled-release mid-range nitrogen segments.

The result is a line of fertilizers offering optimum single-season nutrient release, a very low potential for burn and a greater fertilizer investment return. NOVEX is formulated as a totally homogeneous, uncoated product offering consistent nutrient release. It is available in both a fairway and greens-grade particle size.

For more information, contact 440-333-9250.

Jake's PGM 19 offers smooth cut

The new Jacobsen PGM 19 walk-behind greens mower features a narrow 19-inch cutting width for a smooth, uniform finish even on highly contoured greens.

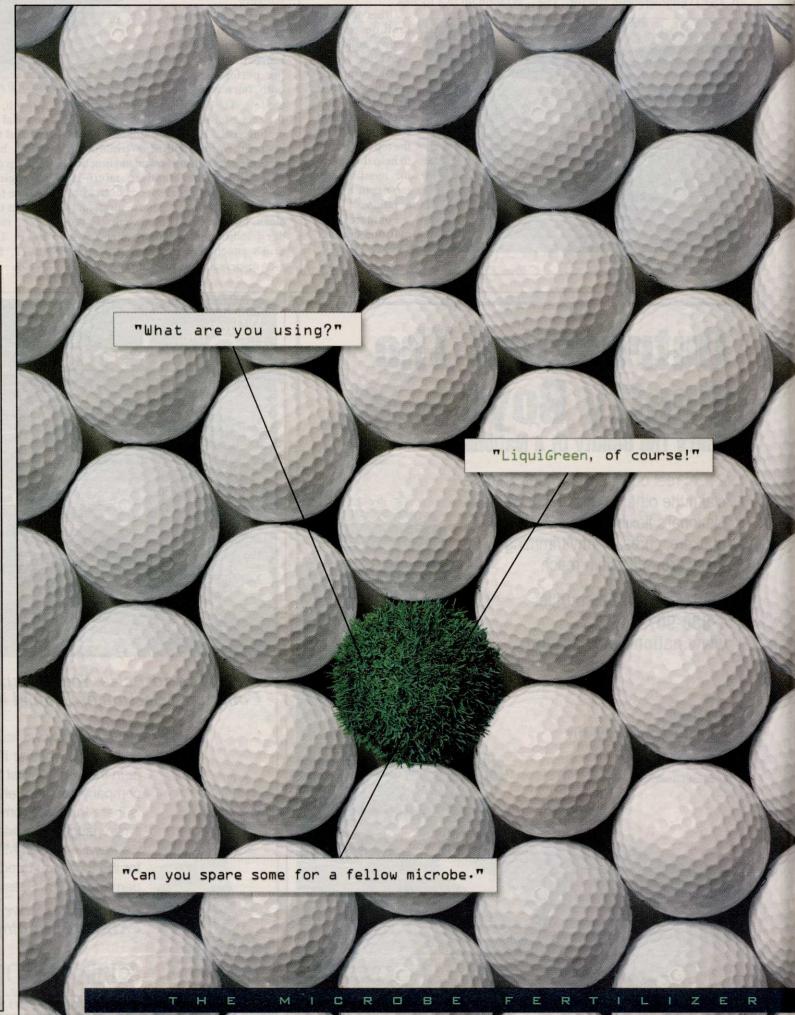
A .205-inch cutting frequency and electronically balanced 11blade reels offer a cut down to 5/ 64ths of an inch. Designed with a precision-machined, cast-aluminum drive drum, cast-aluminum side frames with beveled bottom edges and a choice of aluminum- or steel- grooved front rollers, the PGM 19 eliminates surface marking and delivers tournament-grade results. To increase green speeds by up to 25 percent without decreasing cutting heights, the patented Turf Groomer turf conditioner is

offered as an option on the PGM 19. For increased comfort and reduced hand fatigue, the PGM 19 features an operator-presence control with a padded, ergonomically designed bail. Band brakes are used for positive control on slopes and secure trailer transport. Improved operator visibility makes it easy to check clipping levels.

For more information, contact 888 922-TURF.



The Jacobsen PGM 19.





Standard Golfs drag brush transport unit.

Drag brush unit eases transport

Standard Golf Co.'s drag brush transport unit allows quick movement from green to green during top dressing. Mounted on the utility vehicle tilt box, the transport unit lowers the drag brush for use when the box is raised to the dump position. When the box is lowered to the down position, the drag brush is lifted off the turf and is ready to transport to the next green.

The Drag Brush is designed for use with Standard Golf's 52000 drag brush and the 52050 extensions and includes all mounting hardware, chains and assembly instructions. For more information, contact 319-266-2638.

IMPROVED FORE FUNGICIDE

The Rohm and Haas Co. introduces Rainshield, a new formulation of FORE fungicide. The patented, new technology improves FORE's ability to resist wash-off due to heavy rains or irrigation. This improves the product's efficacy, without the need of using a spray adjuvant. FORE Rainshield offers curative control of brown patch, gray leaf spot and Helominthosporium leaf spot and is labeled for treatment of pythium blight, dollar spot, slime and snow mold, rust and algae. Rainshield is available as an 80 percent wettable powder or in 1.5-pound water soluble pouches. For more information, contact 800-987-0467.



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creates thicker and healthier turf. Healthier plants stand up better in high



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And that adds up to a better

looking, better playing golf

course for your golfers. Plus,

LiquiGreen is as safe to use as it is hard-working. It does not burn - it has a salt index that's 8-9 times less than other nitrogen sources; you could virtually triple the rate with no adverse effects! It also stays put. There's very little leaching with LiquiGreen; no nitrates will be showing up in the water table.

Ask any microbe....



The Ever-White cup liner.

Par Aide's no-paint cups and stakes

Par Aide introduces Ever-White aluminum cups and Recycled Plastic rope stakes. The Ever-White cup is aluminum on the outside, but the inside wall holds a bright white plastic sleeve - which means no more painting because there's no paint to chip. The sleeve stays right in the cup during play but is easy to replace when needed. There's still the classic aluminum sound when the ball drops in.

Par Aide rope stakes are made of recycled plastic. They, too, never need painting. It's easy to string rope through, and the open slot allows for stakes to simply added or removed. The stakes come in lengths of 12-, 18and 24-inches with a 5/16-inch thick stainless steel spike.

For more information, contact 888-893-2433.

Self-adjusting reel from Bush Hog

Bush Hog introduces the Victory reel, a new reel that delivers a consistently high-quality cut over months of use without operator or mechanic adjustments. The new patented design greatly reduces the frequency of backlapping and virtually eliminates the need for adjustments. It also eliminates inconsistent mowing performance that can result when adjustments of conventional reels aren't made as bed knives and reel blades wear. The Victory reel's V shape creates two support points between the reel and the bed knife on each side of the leading edge. The two support points create a spring system and maintain perfect reel to bed knife contact without operator or mechanic adjustments

For more information, contact 334-874-2700.

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BRIEFS



ENVIROTECH HIRES CROWE

ENID, Okla. — Envirotech Services, an engineering consulting firm, has hired M. Kevin Crowe as its representative in the Eastern United States. He will be handling the firm's golf course consulting in that area, helping golf courses come into compliance with



M Kenin Crowe

environmental and safety and health regulations. Crowe, a resident of Augusta, Ga., was formerly the course superintendent at Bonita Bay Club East in

Naples, Fla., as well as assistant superintendent in training at Augusta National Golf Club. He earned an associate degree in environmental horticulture from Abraham Baldwin Agricultural College. Crowe is a member of the Georgia and Everglades golf course superintendents associations.

IOWANS ELECT APPEL PRESIDENT

DES MOINES, Iowa - Russ Appel of Briggs Woods Golf Course in Webster City has been elected president of the Iowa Golf Course Superintendents Association. He and a new slate of officers were elected at the 66th annual Iowa Turfgrass Conference and Trade Show held here, Jan. 24-26. Joining Appel are Vice President Troy Martinson of Sioux City Country Club; Northwest Director Stephen Roseberry of Sibley (Iowa) G&CC; Central Director Don Portwine of Ames (Iowa) Golf and Country Club; and Northeast Director David Roe of Garner Memorial G.C. in Cedar Rapids. Serving in the second year of a two-year term are Southwest Director Ron Stephan in Indianola; Director of Association Affairs John Ausen of Hyperion Field Club in Johnston; and Southeast Director Joyce Hamilton of Wahkonsa Country Club in Durant.

EQUIPMENT, ENGINE COUNCIL MEETS

CLEVELAND — The Equipment & Engine Training Council will hold its 4th annual meeting in Cleveland on April 9-11. The meeting's purpose is to address the critical shortage of technicians in the outdoor power equipment industry. For more information contact the EETC at 512-448-1788.

WEB SITE GOES ON-LLINE

GREENTRAC.COM, a web site pertaining to turf installation and management, has debuted.

Seven Lines of Defense

Canadian project uses set of conservation techniques

By CHERYL REGO

NTARIO, Canada — Environmental concerns ride high at the site of any golf course development, and now a developer here is using what it calls the Seven Lines of Defense to combat environmental concerns. The Seven Lines of Defense are conservation techniques that address concerns such as water runoff, loss of nutrients and leaching of pesticides.

Some of the techniques featured in the Seven Lines of Defense have been already been incorporated into new golf courses, and many of the techniques are leading the industry. Two of them are particularly interesting.

- By lining the greens, tees and inlets to wetlands with klinker ash stone, a hydro-generation waste product, the developer hopes to remove additional phosphorous runoff.
- It also plans to plant a harvested species such as poplar trees in the constructed wetlands which will remove unwanted components by bio uptake.

The notion of using klinker ash on the course has an interesting start. Klinker ash is a byproduct from the coal-fired generating stations of Ontario Hydro. Hydro was looking for a way to get rid of the klinker ash, and with some research



Vito Cirone, one of Burnsides employees, is planting in the field.

found that it could be used as bulk fill and that it attenuates and binds phosphorus.

Phosphorus is a major concern for the Lake Rosseau Beach Resort. The resort is located in the Muskoka Lakes region of the province, a watershed area of great environmental interest. Phosphorus encourages algae blooms in lakes. The idea to incorporate klinker ash stone came from Michael Michalski, a biology consultant who had done research on the ash. Experiments are now being done to determine the life span of klinker ash's phosphorus-ab-

Continued on page 28

Niche and native grasses may be an answer for some

By PETER BLAIS

ROCKPORT, Maine — In the near term, superintendents cannot live without pesticides, fertilizers, irrigation, etc., according to Skip Lynch, director of Seed Research of Oregon's Golf & Sports Turf Division.

But in the long term, by going to low-maintenance/high-resistance niche and native grasses, superintendents can drastically reduce their use of these inputs.

"It's been working in England for 400 years," Lynch told those attending the recent Maine Golf Course Superintendents Association annual conference here. "They don't irrigate, fertilize or spray pesticides. Because of that, they have grasses that have adapted to those management extremes."

Why change?

Today's demands on courses are growing, Lynch said. Input costs—i.e. fertilizers, irrigation and pesticides—are going higher and higher. Demands for late- and early-season play as well as Augusta National-like conditions are escalating. And despite the "Brown Is Beautiful" campaign designed to lower golfer expectations, golfer demands mean living turf is being pushed to its limits.

More challenges loom on the hori-Continued on page 32



The future is now in maintenance building complexes

By MARK LESLIE

HARROGATE, England — Maintenance "barns" of the past are shedding that identity as modern technology, forward-thinking space planning and environmentally conscious superintendents transform their work areas into "turf-care centers," or "natural resource management centers."

That was the word from Master Greenkeeper Terry Buchen, an American who told an audience at BIGGA Turf Management Exhibition (BTME) about "Maintenance Facilities of the Future."

Indeed, parts of these facilities of the future already exist at some high-end private and public facilities in the United States. The highly traveled Buchen took bits and pieces of a number of maintenance complexes to present a composite from which greenkeepers could draw and to which they could aspire.

Continued on page 30

British & Int'l Show Review



OF PRESIDENTS PAST AND PRESENT

New British & International Golf Greenkeepers Association Chairman Elliott Small of Tulliallan in Scotland, center, visits with Golf Course Superintendents Association of America President Dave Fearis, left, and GCSAA past President George Renault III.

Watschke: Expect breakthroughs in turf

By MARK LESLII

HARROGATE, England — Fantastic advances in turfgrass breeding and genetics loom in the immediate future, but with this progress will come unheard-of challenges for greenkeepers, said Dr. Thomas Watschke of Pennsylvania State University.

"Innovations are only limited by the imagination, and believe me when I say that geneticists know how to dream," Watschke said in a talk at the BIGGA Turf Management Exhibition (BTME) here.

"Technology offers very seductive solutions. But what are the ramifications of the results?"

He was referring to one of the latest of a phenomenal string of new high-tech grasses that have included one Roundup resistant bentgrass and another possible Prograss-resistant bent.

Dr. David Huff, Watschke said, has produced a semidwarf-type annual bluegrass that is superb but without seed

Continued on page 38

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7 Lines of Defense tackle environmental questions

Continued from page 25

sorbing properties.

Jim Firth, manager at Burnside Golf Services, the developer, said the ash might need to be replaced in 20 or 30 years.

The use of poplar trees to remove available nutrients off-site is linked with klinker-ash functions. Research in land-fill

cleanup has shown that phytoremediation — techniques using plants to clean up groundwater — is very effective. Rapid-growing plants like poplar trees suck up a lot of water and heavy metals when they grow.

Phyto-remediation has been applied a bit beyond an experimental level for the past five years. In fact, it is now possible to calculate how many gallons of water per year a poplar tree can "drink."

Firth and his team have modeled a unique method to maximize the use of klinker ash and poplar trees. They have quantified how much water will move throughout the golf course using HELP (Hydrologic Evaluation of Landfill Parameters), a landfill technology.

All areas where water passes throughout the course will be lined with klinker ash. The water will be stored in ponds bordered by poplar trees. Using phyto-remediation research, the team will determine how many poplar trees are needed around the ponds. Firth said poplar trees were chosen because they grow very quickly and absorb great quantities of water. Once the trees have matured, they can be cut up for firewood or just be moved to a safer area outside the watershed.

This method demands a lot of klinker ash. But since the ash is free from Ontario Hydro, the developer only pays for trucking costs.

Nevertheless, using klinker ash may not be the cost benefit it appears.

"We haven't quantified what we need, but if we need big volumes," Firth said. "The trucking costs might be 20 percent of the golf course. If the source of the ash were close to the site, the cost would drop."

Research from the University of West Virginia shows that using coal ash is cheaper and as effective as conventional methods.

Firth said the development of the Lake Rosseau Beach Resort presents the first time that all seven Lines of Defense have been incorporated into one project. They include:

- proper use and application of fertilizers, which prevents misuse or possibilities of accidents:
- a reduction in fertilizer use by using slow-release fertilizers and natural vegetation:
- possible annual contribution of nutrients is less than the permitted assimilative capacity of the natural environment because research shows that, in most cases, 5 percent of applied fertilizer is lost and frequently less than 1 percent is lost;
- composting of grass clippings further removes up to onethird of the free nutrients normally lost to the surrounding environment; and
- by directing under drains and surface flows to constructed wetlands, greater treatment of runoff from the golf course can be achieved.

Scott Martin, the national coordinator for the Audubon Cooperative Sanctuary System of Canada, said that using klinker ash in combination with fast-growing trees is important for the area.

"Muskoka soils are typically shallow because it is on the Canadian Shield and runoff happens even more easily than in other areas," said Martin. "The Seven Lines of Defense look very good to me. It looks like a great way to start.

"Two really good things here are the construction of artificial wetlands. Naturally, wetland plants take up a lot of heavy metals and different contaminating chemicals and at the same time the planting of poplar trees, phytoremediation, is good. That is a great combination of practices."



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AILEY, Idaho - Since breaking into the golf business as a 24year-old superintendent at a ninehole executive facility in the Milwaukee area, Stephen E. Maas has advanced in

The certified golf course superintendent is now working at The Valley Club here, an 18-hole private facility which opened in July 1996. The road to The Valley Club, which began in Milwaukee,



the profession.

continued for four years as superintendent at Southglen Country Club in Littleton, Colo. He then earned a twoyear turfgrass certificate from Penn State University during the off-season and in-

terned as the assistant during construction and grow-in at Country Club of Castle Pines. Since then he has been heavily involved in construction, including superintendent posts at Coeur D'Alene in Idaho and on projects in southern Illinois and Missouri.

Tools of the Trade... at Maas' The Valley Club



The Valley Club's maintenance shop includes a chain hoist (foreground), second-floor mezzanine storage and work area above the offices, a fireproof storage cabinet and 10-by-10-foot garage door.

Greens Mowers: 3 Toro 1000, 3 John

Tee Mowers: Jacobson Greensking IV. Toro Greensmaster 3000

Fairway Mowers: 3 Toro 5300D Rough Mowers: 2 Toro 216D, Ransomes Jaguar 6150, Toro 325D, Toro 4500D

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Aerifiers: Vertidrain 7316, Ryan Renovaire, Toro HydroJect 4000

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Grooming Reels: None

Tournament Speed Roller: Set for

Jacobson Greensking IV Reel Grinder: Foley Accu 610

Bedknife Grinder: Foley Accu 610 Irrigation Pump Station: Flowtronics PSI (2400 GPM)

Irrigation System: Cirrus

Golf Car Fleet: 45 Club Car electric Flagsticks: Standard Royaline 8-foot with tube-lock swivel

Computer & Accessories: Dell Optiplex GX1

Primary herbicide: Trimec 899 Primary pesticide: Dursban Pro Primary fungicide: Engage 4F

Primary slow-release fertilizer: IBDU Square footage of the maintenance building(s): 6,000 square feet

Annual rounds of golf: 18,000

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Future is now in maintenance complexes

Continued from page 25

The parameters for Buchen's modern and futuristic turf-care center for an 18hole course include:

- · "While maintenance buildings in the past were situated in the middle of the golf course, the modern way of thinking is to have them on the outside so that deliveries don't bother golfers," he said
- The area normally needed is .81 to 1
- The buildings range in size from 372 to 1,116 square meters.
- "The goals and objectives are to store all the maintenance equipment inside to prevent damage from the sun and moisture, and have a good environment to work on the equipment and for the em-
- · Cool-season courses will have heated and cold storage. Warm-season courses also will have heated storage, but many times they have a three-sided carport for cold storage.
- · The conceptual floor plan provides for proper traffic flow - a crucial decision for the greenkeeper to decide.

The mechanic's shop of the future will range in size from 100 to 280 square meters. Its amenities will include:

A hydraulic lift for riding equipment that can lift from 2,000 to 4,000 kilograms; a hydraulic lift table for smaller equipment and walk-behind mowers which is capable of lifting about 900 kilos; workbenches that are 91 to 106 centimeters high and are topped with 6.3-mil-thick metal and which have storage space underneath.

√ Numerous air and electrical outlets for electric and air power tools.

V Overhead, retractable hoses for lubrication, air and water,

An overhead hoist and block and tackle.

Remote control-operated garage doors that are at least 4 meters high and 4 meters wide.

Skylights and excellent fluorescent

A parts room with adequate shelving and excellent lighting.

√ A heated and air-conditioned mechanic's office with a window into the shop area and sealed off so the mechanic can make phone calls in a quiet environ-

√ Record-keeping, including a computer to keep service records, parts inventories, purchase orders, etc.; file cabinets for record keeping; and bookcase storage for service, shop and parts manuals for machinery.

√ A grinding and sharpening area, sometimes in a separate room, that contains bedknife and reel grinders.

√ An exhaust fan and fresh-air ventilation and a dust-collector system.

A welding and acetylene torch area that contains safety curtains to protect the eyes of nearby workers; welding table with vise and storage underneath; threephase electric outlets throughout; Y extension cords so welders can be mobile; exhaust fan and fresh-air ventilation; and excellent lighting.

A heated- and cold-storage area for maintenance equipment, with a garage door at least 3 meters wide and 3.7 meters

"This is really important in new facilities," Buchen said. "There is more and more electric equipment today, and a lot more to come, so having separate outlets with separate circuit breakers is crucial."

√ Miscellaneous storage rooms for tools, paint, course accessories, grass seed, and irrigation and drainage parts.

√ A spray-paint booth.

Employee areas, Buchen said, will boast showers, locker rooms, kitchen, vending machines, lunch room and meeting room. The lunch room may have two to three microwave ovens, a stove and oven, toaster oven, a refrigerator or two, kitchen sink, electric drinking fountain, the crew assignment board, a large hand-washing sink, a television for audio-visual training, along with a VCR and DVD players. A pay telephone, time clock, bulletin board, rainsuit storage area and even a washer and dryer will be a standard.

Safety requirements include Right To Know wall displays with material safety data sheets; hazardous communication plan wall display; a walkout-tagout program; local, state and federal work posters; emergency telephone numbers; safety training video notebooks; and an emergency evacuation plan.

Future first aid kits will include a defribillator, oxygen bottles, eyeglass goggles, ear plugs and safety goggles.

In the States, Spanish is becoming the unofficial second language on golf course maintenance crews, and so all safety signs are becoming bilingual, Buchen said.

New maintenance facilities of the future, Buchen said, will have:

- · Soil test and disease identification rooms.
- · A microscope and soil test kit.
- · An irrigation technician's office with a computer irrigation controller, and irrigation system computer parts and supply
- The head greenkeeper's office with a weather computer, grounds management operating system computer, Internet access, three-quarter-sized toilet and shower, and a conference table for meeting with key staff members.
- · The assistant greenkeeper's office with a blueprint room, daily operation record-keeping, and all the fertilizer and pesticide records. Sometimes it will be shared by the spray technician.
- · A reception area fully equipped with a computer, fax machine, photocopier, telephone voice mail, paper shredder and two-way radio.
- · Storage, utility and equipment clos-
- · Utilities including single- or threephase electricity, natural gas or propane for hot-water heat and furnace, domestic water, sewer, three to six telephone lines and cable television for the Weather Chan-
- · An employee car park typically with one car parking space (3 meters wide and 6.1 meters long) for each employee.
- · An equipment staging area outside the maintenance building, where mechanics can check out the equipment and the employees can jump right on it to go to work in the morning.
 - A trash dumpster area.
 - A loading dock for lorries to unload

Continued on next page GOLF COURSE NEWS



This hydraulic lift has a lifting capacity of between 4,400 and 8,800 kilograms, so it can lift all maintenance equipment except the heaviest loader/backhoe tractors.



The future is now

Continued from previous page supplies.

- A 140- to 232-square-meter pesticide and fertilizer storage and rinsate building that sometimes stands alone. It is equipped with spill containment, a 24hour-a-day exhaust fan, fresh-air vents and explosion-proof lights. It is heated and cooled and has a fire sprinkler system because of the volatility of the pesticides.
- · Fire extinguishers, emergency spill management and bilingual safety signs.
- An area next to the pesticide buildings to store spray and granular application equipment.
- · Three storage tanks for rinsate to wash the pesticide and fertilizer application equipment. The tanks will range in size from 380 to 760 liters. Drainage grates and submersible pumps will ensure that all the water is reused and filtered by filters that are changed daily.
- · A 93- to 232-square-meter fertilizer storage building.
- · Used oil storage and rinsate equipment wash racks. Unleaded petrol and diesel fuel storage tanks, ranging in size from 1,892 to 3,785 liters, will have such safety requirements as emergency fuel

shutoff switches, fire extinguishers and bilingual safety signs.

- New oil storage, in either 113- or 208liter drums, with spill containment beneath them.
- · Soil storage buildings made of brick, with sidewalls, and a roof. The floor surfaces will drain toward the front of the building, so that if any moisture does get in, it surface drains. Storage will include greens top dressing, top soil, tee and fairway top dressing soil, bunker sand, divot soil mix, mulch and bark, drainage gravel, and, in the Northern climates, road salt and calcium chloride.
- · Greenhouses for in-house propagating of annual and perennial flowers, trees and shrubs, clubhouse interior plants, and turfgrass experiment plugs. Turfgrass nurseries, often at the maintenance complex, will vary in size from 140 to 465 square meters. The tee, fairway and rough nursery, often located on the golf course, will ranger from 465 square meters to almost half a hectare.

"Many new facilities," Buchen added, "have turf student housing - literally small apartments that are furnished and have no cost for the employee. It actually helps the club by providing security through the employee."



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



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Niche and native turfs are the answer in some places

Continued from page 25

zon in the form of additional government regulations.

"[EPA chief] Carol Browner is not our friend," warned Lynch. "Restrictions on fertilizer, limits on irrigation water and reductions in emissions and waste are on the way.

"Why do you think Toro and

Jacobsen are making electric greens mowers? Emissions, emissions, emissions."

There is also a growing demand for non-chemical solutions to turf problems — i.e. good neighbor policies, the Audubon Cooperative Sanctuary Program, removal of certain families of pesticides.

"We've already lost mercury, PCNB is a target and certain fumigation techniques are going away. The reality is, we need to change our way of thinking," Lynch said.

These changes will require developing new grassing strategies and golfer acceptance of less-than-perfect conditions. "You cannot sustain Augustaquality conditions on 16,000 courses in America," Lynch said. "We need to develop a more intimate relationship with Nature by bringing native and naturalized areas closer to play, thereby reducing the amount of maintained turf."

This is where niche and native

grasses enter the picture.

Niche grasses are traditional turf types that suit a certain management regime and cultural practices. Colonial bentgrasses, velvet bentgrasses and fine fescues are three examples commonly used in the Northeast.

Native grasses are plant materials that are indigenous to an area, such as big blue stem, Queen Anne's lace and Indian head.

They also include grasses introduced hundreds of years ago, like the red fescues Spanish friars planted in the Southwest as a forage grass in the 1500s.

NICHE GRASSES

Colonial bentgrasses are bunch grasses. They are fine textured, apple-green in color, and

'[EPA chief] Carol
Browner is not our
friend. Restrictions on
fertilizer, limits on
irrigation water and
reductions in emissions
and waste are on the
way.'

- Skip Lynch

establish quickly. They are tolerant of sandy, gravelly soils with low fertility requirements and fairly high disease resistance. They also have low irrigation

"The problem with Colonials is that you can kill them with kindness," Lynch said. "The more water you dump on them, the worse they perform. They are excellent fairway and tee turf and can be mowed to a quarter-inch. They have good wear tolerance and blend well with fine fescues and poa annua. They can help you get through icy conditions and low-fertility, low-water, zero-pesticide regimes."

Velvet bentgrass — long a staple in the Northeast — is often as effective as the As and Gs being specified into many of today's courses, Lynch said. Velvet bentgrasses are stoloniferous and have an ultra-fine texture with a leaf width that is half of A4.

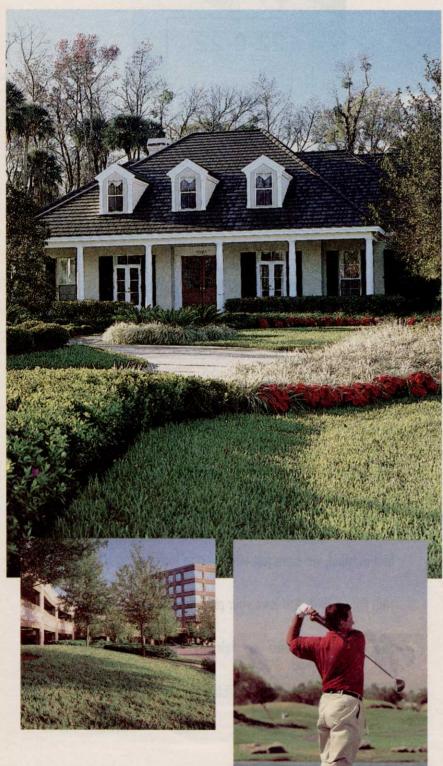
If managed properly, they are very disease resistant, have a true green color, are tolerant of most soil types (especially low pH), require little nitrogen and need little water.

They are suited to tees, greens and fairways, are the most shadetolerant of all bentgrasses and can withstand low mowing heights.

Fine fescues are a grossly under-used grass, Lynch noted. Fine fescues include chewings,

Continued on next page

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UFFALO, N.Y. - On March 9, the New York State Turfgrass Association (NYSTA) will present its Western Regional Conference, a one-day seminar designed to share with grounds managers the latest information, research. and techniques.

In addition to the educational sessions, this one-day conference will include a trade show with vendors representing various interests.

Seminars will include:

· General Session Weather or Not, Stan Levine, National Weather Service Forecaster; Using Weather Conditions to Predict Pest Outbreaks,

Native, niche turf

Continued from previous page

hards, creeping reds and sheeps. They are also low-maintenance/ low-fertility grasses.

"You can do just about anything with fine fescues that you can do with Kentucky bluegrass," Lynch said. "They are excellent in shade and blend well with bents.

"A mixture of five pounds of chewings fescue with a pound of bent can re-establish an area in six weeks. As you lower the mowing heights, the chewings fescues mow out and give way to the creeping bentgrasses that are starting to establish themselves. They can also be used in conjunction with natives."

NATIVE GRASSES

Besides requiring little maintenance, native grasses are prized for their aesthetic qualities, Lynch said. Their seed heads, fall color and diverse texture make them attractive

Natives are best used in outof-play areas and as accents around tee boxes, specimen gardens and slope stabilization areas.

There are several keys to establishing native grasses, Lynch said.

"Don't cultivate too deeply, otherwise you'll bring weeds to the surface, especially in areas that were formerly pasture," he explained. "Don't prep the soil down more than 2

"Minimize pre-planting fertility regimes to less than half of what is used in in-play areas because natives will suck up the nutrients as quickly as they can find them.

"Keep seeding rates low. The idea is to give each individual plant enough room to establish itself.

"And finally, be patient. It takes three to five years to establish a mature-appearing area. If you're expecting results in a year, you'll spend a lot of money and be very disappointed."

New York Turf Assn. seminars planned

Dr. Michael Raupp, University of Maryland.

· Build Your Skills - Basic Turf Soil Management, Joann Gruttadaurio, Cornell University; Turfgrass IPM, Kevin Trotta, North Rockland CSD; Weed Identification and Control, Joann Gruttadaurion, Cornell University

· Lawn & Landscape -Advances in Integrating Biological Controls Into Plant Health Care, Dr. Michael Raupp, University of Maryland.

• Golf — Turfgrass Disease Review (Including New Diseases Such a Gray Leaf Spot), Dr. Peter Landschoot, Pennsylvania State University.

• Environmental Issues -The Audubon Cooperative Sanctuary System & Stewardship Where You Live, Work, and Play, Joellen Zeh, Audubon International; DEC Certification Regulation Changes, Ed Hanbach, NYS DEC; Dow Does 48-Hours Notification Affect Your Business.

Bob Ottley, One Step Lawncare; Legislative Process/Current Legislation, Pat Hooker, New York.

Farm Bureau; 48-Hour Notification: Working With Your Legislator, Michael Maffei CGCS, Back O'Beyond, Inc.

Conference hours are from 8 a.m. to 3:30 p.m., with registration beginning at 7 a.m. For more information, call NYSTA at 800-873-8873, 518-783-1229,



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Saving floor space in welding operation

By TERRY BUCHEN

APLES, Fla. - With the goal of storing sticks of various types of metal in a secure, out-of-the-way location in the shop area, Olde Florida Golf Club has added an overhead storage rack above its welding unit and workbench.

Shop and equipment manager Kim Ellis built the unit in about three hours, and the cost was under \$50 for materials, said superintendent Darren Davis.

The rack is 20 feet long to accommodate that length piece of metal, if needed. There are five down rods, all with support bars, so smaller pieces of metal can also be stored. Metal trusses, or purlings, run lengthwise on the ceiling, where they are spot welded to the "I" beam. The down rods are bolted to those trusses

Due to the pitch of the roof and "I" beam, the down rods are different lengths so the bottom of the rack is level with the floor (not the 1-to-12 pitch of the roof). The end down rod (closest to the side of the building) is 4 feet in length while the end one (closest to the center) is 5 feet. The support bars that hold the metal are 24 inches long; 12 inches on both sides of the down rod. Of the 5 total down rods, the three closest to the center of the building have three separate racks made from the support bars. Due to the slope of the roof, the two down rods closest to the garage doors only have two racks so that the bottom remains level with the floor," Davis added.

"The racks formed by the support bars are 12 inches apart (up

lowan supers honor Schilling

DES MOINES, Iowa - The Iowa Golf Course Superintendents Association (IGCSA) has honored Dennis Schilling of Pheasant Ridge Golf Course in Cedar Falls as Superintendent of the Year.

Meeting at at the 66th annual Iowa Turfgrass Conference and Trade Show here, Jan. 24-26, the IGCSA also presented the Assistant Superintendent of the Year award to Roland Trimble and the Distinguished Service Award to Mike Gehl of Fillmore Fareway GC in Cascade, and Dean Fagerlind, who has retired from the Waterloo Parks Department.

The Charles Calhoun Writing Award was presented to Tom Lavrenz, director of golf for the city of Cedar Rapids.

Over \$5,000 in scholarships were awarded to students in turf programs at colleges and universities across the state.

and down) and the down rods are 5 feet apart. The down rods (metal extend-

4-inch-thick angle iron. The support bars (metal welded to the down rod to create a shelf for the metal) are 1-by-1/

ing down from the

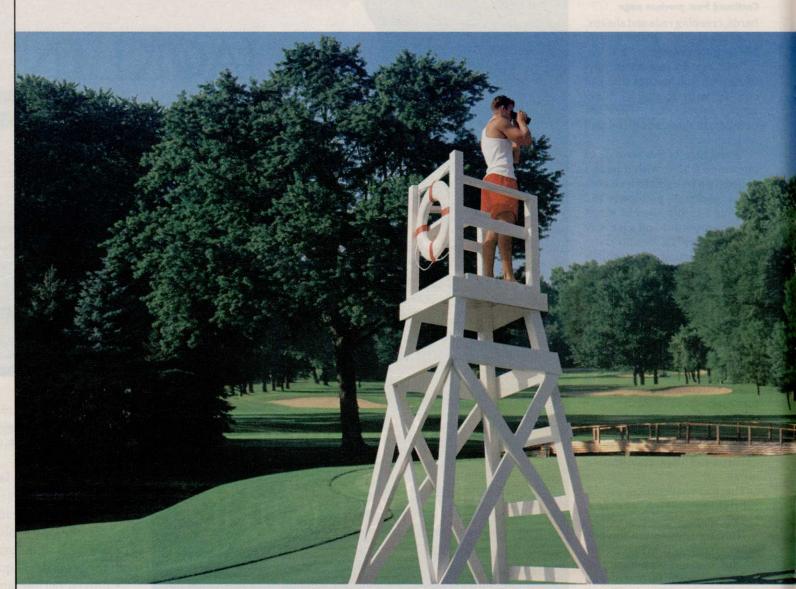
ceiling) is 1-1/2-by1/

4-inch-thick angle iron. The end two down rods have 1-by-1/4-inch thick angle iron attached to the end to form a containment system for the metal and

they are attached with a clevice and cotter pins," Davis concluded.



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Laving down the Finn Additive System

New method makes hydroseeding viable

By LYNN TILTON

CINCINNATI, Ohio - The simple addition of micronutrients to the seed mix has transformed hydroseeding into a method that could help change golf course construction and renovation and overseeding.

Gone is the need for straw mats or blankets. Gone is the

expense of laying turf, the worry about survival, green-up or weeds.

That's because the slurry the hydroseeding machine sprays down is a sticky thick mulch containing ingredients for best germination, including germination enhancers, fumic acid and other soil amendments, readily available nutrients from soluble fertilizer at recommended rates, liguid lime to adjust soil pH and a beneficial microbial bacteria product.

With just a single pass, a crew of two can establish or re-establish turf successfully - and economically.

"With this system, you can establish new grass for as little as 1.5 to 2.5 cents per square foot," said Al Schrand, consumable products manager for Finn Corp. here. Prior to joining Finn two years ago, Schrand spent four years as a turf consultant.

"The benefits of hydroseeding within the golf course industry are numerous," he said. "While hydroseeding still is a learning curve for many superintendents, it's a great way to seed and overseed areas they thought couldn't be reached.'

"How do you seed a major slope?" he asked. "The standard practice is to lay down a straw mat and staple it in place. That is very labor-consuming and costly. With hydroseeding, you merely have to spray a bonded fiber matrix mixture that sticks, prevents erosion and encourages germination."

Called the Finn Additive System, it takes just one hour to learn how to do it, Schrand reported.

"Then comes practice, knowing what to put in the machine and how to get the best results,' he added.

Schrand cited a Midwest golf course built over a landfill. "The superintendent was going to use sod, especially around tees, greens and bunkers," he said. By going with this hydro-seeding system, he saved 75 percent in costs. He needed a quick fix, which was why he was thinking of sod. But a germinating seed is a much healthier plant than sod.

"Also, with seed you don't get that dropoff associated with sod," he added. "Hydroseeding is a linear, complete, uniform germination practice."

"Any time you grow something new, you need microbial bacteria," Schrand said. "Organics. That's what we're doing. We're also supplying erosion-control products which include a tackifier and a wood fiber mulch. What the application crew needs is an application machine with mechanical agitation, which gives equal dispersion during spraydown. A jet-agitated machine is not able to pump this slurry."

That's because the slurry is precisely that. When placed on a piece of cardboard, for example, it will stick in place, with no oozing or sliding.

Continued on page 36





trol, it pays to play it safe.

pre-emergence application. And there has never been any indication of weed resistance to RONSTAR* Plus, unlike DNA herbicides, RONSTAR* does not inhibit new root growth. So, there's nothing to prevent your turf from growing fuller, lusher and stronger throughout the season. Remember, when it comes to weed control, it pays to play it safe with the time-proven perfor-

mance of CHIPCO® RONSTAR®

Big names move to famous clubs

PEBBLE BEACH, Calif. -The latest in a series of job moves by well-known golf course superintendents is that of Pebble Beach Golf Links first assistant Eric Grevtok to the head superintendent position.

Greytok succeeds Mark Michaud, who took the post at Southampton, N.Y.

Several other well-known superintendents have moved on recently, leaving famed golf courses for other well-known facilities.

Paul Latshaw moved from Congressional Country Club in Bethesda, Md., to Winged Foot replacing Bob Alonzi. Alonzi had gone to Fairview Country Club, but soon left in favor of Fenway Golf Club in Scarsdale,

Meanwhile, Oakmont (Pa.) Country Club's Mark Kuhns is in new digs at Baltusrol.

Pebble Beach's Greytok is a former first assistant superintendent at Congressional Golf Club and Merion Golf Club, and once

New method making hydroseeding more viable

Continued from page 35

"It will stick to the ceiling," Schrand said. "Before this breakthrough, hydroseeding was just a mix of seed, mulch, fertilizer and a bunch of water. Crews were spraying rivers.

from that. What this system sprays out is a thick, moist mulch material, with everything held in suspension. When it hits it sticks, gives good uniformity of germination, no pockets or voids.'

How steep a slope can this system handle?

Schrand said: "We've actually done concave slopes. That is why when this stuff germinates it grows instantaneously and very uniform. We are not promoting weeds, which can be a problem with a straw or hav mulch.'

How quickly does growth oc-

"We just finished a big film shoot on a yard that was 4 weeks old and it looked like an established lawn," he said. "Grass grows very erect, like bristles on a toothbrush. There is no laydown like you get with sod.

Schrand explained that success comes because at the time of mixing, which takes from 15 to 25 minutes depending on the size of the tank involved, the seed is soaking up the hormones, vitamins and nutrients.

"Then it's sprayed out with a soft, wet, very protective mulch material," he said. "Further, it takes just one or two people to hydroseed and they can cover from 3,500 square feet to an acre per tank load.

The key element to success is water, he said, adding: "If you have irrigation, you're going to have excellent results. The seed, put down at recommended rates, is evenly dispersed. From the machine, an operator can reach at least 250 feet with no problems, and some have done as much as 400 feet, thanks to extra hose."

He reports there's no cleanup because the system uses all biodegradable products. "The wood products and tackifier enhance microbial activity and people can walk on it after the first mowing," he said. "Some courses look like established lawns in just four weeks."

Asked about the economics of this system, Schrand mentioned a superintendent who had a \$16,000 bid for sod, but got those areas hydroseeded instead for \$5,500.

"Further," he said, "the grass was more erect and thicker than in the places where he had used sod. This system gives the seed everything it has to have, except soil temperature and irrigation. But, the fumic acid in the mix can realistically warm the soil by 3 degrees."



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Rounding up rattlesnakes: a desert within a desert

By BOB SPIWAK

I n late autumn when snow covers the ground, many golfers from north-central Washington State travel to the desert to play golf. But they don't go south, they head north into the Canadian desert. Canadian desert?

Following highway 97, the Sonoran desert ends its northward journey from Mexico in the Okanagon Valley of south-central British Columbia, and in this valley lays a string of courses which are open for play most of the year. Along with golf, the moderate climate yields rich fruit harvest, a plethora of wineries and a burgeoning retirement industry, luring both Canadians and Americans.

It is just over the international border, at 27-hole Osoyoos Golf and Country Club, where golf course superintendent Mike Harrison plies his trade, conquering such odd chores as rattlesnake roundups.

Head pro Terry Graham's wife Gail is a regular on the LPGA Tour.

At Osoyoos for over a decade, Harrison oversees a crew of 13 in-season.

Each nine holes has a name: Park (built in 1972,) Meadow (1982) and Desert (1994) — and each layout reflects its name. The nines are rotated almost daily, with one reserved for nine-hole players.

Harrison, 41, received a two-year turfgrass degree at Kwantlen College in Vancouver and belongs to the British Columbia, Canadian and American superintendents' associations.

The course used to be open all year, shutting down the temporary winter greens only for the occasional snowfall (the region gets less than 9 inches of precipitation a year). But with increased play, Harrison and the management of the member-owned course decided to close from Dec. 15 to the end of January.

"Too many people not waiting for the frost to leave had some bad results,"



Osoyoas Golf and Country Club in British Columbia, with Lake Osoyoas in the background.

Harrisonsaid, speaking of the all-year play.

The town of Osyoos owns the 220-acre parcel containing the course and leases it to the club for a dollar a year. As part of the agreement the course irrigates with effluent water from the town's settling ponds in the middle of the course. While the water is plentiful, said Harrison, it does create problems. It comes from the purification process high in chlorination and sodiums. Over the years, these have wiped out most of the pine trees and thinned the turf on the greens. For the latter, Harrison has begun to use fresh water while hand-watering the putting surfaces.

Maintaining a heavily played desert course has its own problems. More than 55,000 rounds a year are played, but by law the effluent cannot be applied during the day when people are playing the course. And in summer these days can exceed 100 degrees.



Superintendent Mike Harrison in the desert – the Canadian desert — at Osoyoas G&CC.

The automatic sprinklers kick on after play, and Harrison's day begins at 5 a.m. during the summer



months, usually, except when somebody discovers a broken line, or a plugged sprinkler, or the myriad other events that can crop up and require immediate attention.

"With a little luck," Harrison smiled, "I can be out of here by 2 in the afternoon — with a little luck."

He portrays the course as "a desert within a desert." By edict, the desert areas on the Meadow and Desert nines must be preserved.

"This makes things a lot easier in that there is less wall-to-wall maintenance," Harrison said. "On the other hand, players will hit balls into the sagebrush and antelope bush (the only vegetation off the course) and crash through them, breaking them."

He points to a sage plant, maybe 3 inches across its trunk: "This thing is over 200 years old. That's why we isolated it and offer the free lift (from a large circle around the plant) for the golfers. Even with that, a lot still thrash around."

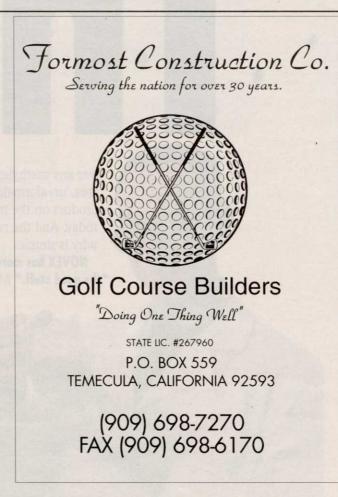
RATTLESNAKE ROUNDUP

Another unique aspect of Harrison's work is rounding up rattlesnakes. "We're not allowed to kill them by law," he said, "so when we get a complaint we have to go out, capture them and release them elsewhere. Two years ago we had a major infestation, but usually not too many are around ... at least not seen."

The popularity of the region is determined by its moderate climate which has its origins in the Coast Mountains of British Columbia. These effectively block incoming weather from the Pacific and with the aid of lesser ranges west of Osoyoos hoist the incoming moisture over

Continued on page 39





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Grasses to break barriers

Continued from page 25

heads. To produce those seed heads the next step is genetic manipulation that will allow that particular cultivar to produce seed at a commercial level without giving up the other traits that are invaluable.

"We need a terminator gene," Watschke said of the process. "What will be required go turn on and turn off genetically engineered response? That will be the challenge... We don't want to end up with something we do not know how to manage."

Therein lies the question of ramifications of at least some of the up-and-coming turfgrasses, but others of these new breed will turn heads in a good way, he said. For instance, the bentgrass that is resistant to Roundup and the one resistant to the annual bluegrass control Prograss. And the genetically engineered rooting ability, which will be on-line by the middle of this century, "will be phenomenal," Watschke added.

Turfgrass breeders and geneticists are making progress in various arenas — from compaction resistance to wear and shade tolerance, non-thatch producers, and dwarfism, he said. Perhaps none of these, however, is as fascinating as "allelopathy," the capacity of one plant to suppress the growth of another. Most of the time this is due to roots, but sometimes from the trailers that come out of the leaves.

"This offers tremendous potential to the whole arena of herbicides, or better still, manipulation of plant competition between one grass and another," Watschke said.

"We have clear evidence that there are certain perennial ryegrasses that suppress annual bluegrass growth. It has long been known that quack grass suppresses the growth of all other grasses," he said.

"Geneticists should go after this one with gusto."

Watschke spelled out the progress in other areas:

• Compaction resistance. "We spend a lot of time managing turf to resist compaction," he said. "We have wonderful tools and equipment to deal with it. Yet every time we want to do something about compaction it gets in the way of people using the facility. There are a couple of plants — knot weed and goosegrass—that have extraordinary capacity to tolerate compaction. They can maintain respiration of the roots under a very low oxygen diffusion rate."

Physicists have known for a long time that these plants have that capacity, he said, but nobody knows why.

"How transferable is that trait?" he asked, adding, "Scientists are looking at the question, can we put these qualities into other grasses?"

• Shade tolerance. "We tend to line up fine fescues and others as shade-tolerant grasses. We want to get grasses to do more than they can do," he said.

For instance, Watschke said, "poa trivialis has extraordinary shade tolerance. How tough is it to transfer that to poa protensis? Then you would have shade-tolerant bluegrass, and we don't have to worry about areas where we have shade on the surrounds or in the rough...

"I personally don't think it will be that big a trick to impart shade tolerance to grasses that don't have it." • Wear tolerance. Vast differences in wear tolerance are sometimes observed within a genus. The same scientific method of transference should work with grasses as well, Watschke said.

• Dwarfism. Huff's research has pinpointed some plants of annual bluegrass that grow less than half an inch in three months.

"What does that mean in regards to wear tolerance? What

does that mean for improvement potential?" Watschke asked. "We will be looking at a turf that is marvelously dense, fine-textured, produces almost felt at the surface—like a billiard table. But, if it doesn't wear well, what have we got?

"Although dwarfism and fineness and density have appeal, we have to be concerned with the downside at the same time."

Continued on next page

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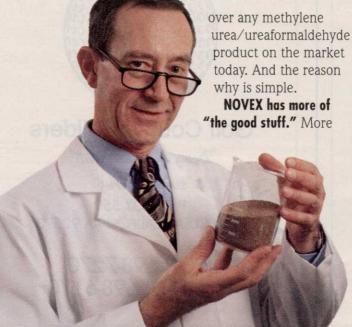
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Nitrogen Characteristics





Mike Harrison: Desert superintendent

Continued from page 37

the valley, across the moderating influence of Lake Osoyoos and into the territory to the east. Lacking this topography, it can be relatively balmy at the course while in Omak, Wash., a mere 50 miles south, a major snowstorm might be in progress.

The area's popularity has resulted in acres of condominiums

and private homes south of the course, and a building boom in the area of the town.

In addition to the water-purification chemicals, the residents use water softeners, Harrison said. These use salt which add yet more sodium to the mix.

Ruefully Harrison noted: "There are better products out there [for water softening] but they're more costly by four times."

Pointing to a browning pine, he added, "We had a dead pine analyzed and there were 67 parts per million sodium in its tissue. That's 15 times normal."

But Harrison is not discour-

"This is a great place to grow grass," he said. "Over the last two years we only had five or six days of snow, and it wasn't cold."

Beside growing grass, the

crew cuts cups and moves the tee markers daily. Bunkers are power-raked five times a week. Although the greens are cut daily, Harrison has the cleanup cut done only three times a week, explaining that the compression of the triplex mowers around the curves exacerbates the effects of the sodium in weakening the turf.

HORSE TRIALS

One day annually, in May, the South Okanagan Horse Trials come to Osoyoos G&CC. There is a course of jumps (permanently placed) and other objects, very large objects, that are used on land equestrians share with the course. On this day, the configuration reverts to the original 18 holes, a process that takes six hours to set up and another six to reconfigure.

"Actually," Harrison grinned, "it isn't bad as it sounds. In fact, I enjoy it."

POSSIBLE 36 HOLES

Addition of another nine holes is being considered at Osoyoos

There are more people moving into the area, more people coming from The States to play here," Harrison said, perhaps lured by the fact the Canadian dollar in October was worth \$1.47 U.S. There are 200 privately owned and 50 rental golf cars at the course.

Will Harrison be up to the challenge of yet another nine holes?

"Oh yes," he said enthusiastically. "Each problem is a challenge, and really, there aren't too many major problems that crop up. The membership is great. I get very little pressure. I love living here and so do my wife and children."

Future grasses

Continued from previous page

· Non-thatch producers. This, Watschke said, is a problem.

"Some of our best grasses are thatch producers," he said. "In this part of the world you have a lot of fine fescues that are thatch producers. They have seasons in which they grow for 12 months, and yet for another period of growth there are such cold soil temperatures that you have very low background-level microbial activity. Even though you have a pH that is adjusted and a top-dressing program, you still get this accumulating thatch just because of their growing environment, coupled with lack of microbial decomposition.

Meanwhile, scientists are trying to breed cold tolerance into warm-season turfs and heat-tolerance into cool-season grasses.

"Under those circumstances the challenges will be far greater than a lot of the other things I've mentioned," Watschke said. "This gets tricky, when you take metabolic issues that have complexity of genetic control. To unravel all of that and make it work is difficult.

"However, the Japanese have had early success in transferring such traits from Zoysiagrass to cool-season germplasm."

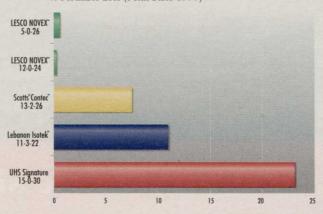
Turfgrass management, he said, "will only get worse in terms of how complex the issues are that you are going to have to deal with. Genetic engineering is not going away."

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North Shore's Dinelli chosen for Scotts Excellence Award

Continued from page 1

be." It was given at the recent International Golf Course Conference and Show here.

"All these awards, Environmental Steward, Scotts Tradition of Excellence or what-have-you, are always a group effort, starting with the support of the board at North Shore Country Club,'

Dinelli said. "They allow us to express our creativity. As far as getting projects implemented, my cousin, Jerry Dinelli Jr., and the crew who all grew up together get them done.

Dinelli referred to his crew of seven who all worked for his father, Joe.

Joe and his brother, Jerry

Dinelli Sr., both worked for their father, Frank, who passed on the tradition of innovation in their family. Joe invented the power rake for sand traps and sold it to International.

Jerry Sr., the superintendent at nearby Northmore in Highland Park, worked with a computer company to create and in-

stall the first-ever computerized irrigation system.

Asked how important ingenuity is to his profession, Dinelli said: "The basics in turfgrass management remain pretty constant. The important thing is the innovation to make it more efficient and environmentally friendly. We need to continue

'All these awards ... are always a group effort, starting with the support of the board at North Shore Country Club.'

Dan Dinelli

moving forward, whether toward more environmentally friendly chemicals and fertilizers, or machinery that applies water in an efficient manner.'

In nine years at North Shore, Dinelli has built a reputation for excellence in maintenance not only on the golf course but also through his personal contributions to the profession.

Certified in the Audubon Cooperative Sanctuary Program in 1998, North Shore is recognized for its Integrated Pest Management (IPM) and biological pest management. The club was a regional winner in 1998 and a Mid-Continent Region winner in 1999 and 2000 of the Environmental Steward Award from the Golf Course Superintendents Association of America (GCSAA).

Personally, Dinelli was instrumental in the Chicago Peregrine Release program, which successfully reintroduced the peregrine falcon to the Chicago area. He also supported the effort to ban the pesticide fenthion, used for nuisance bird control, and served on the board of directors at Alexander Stillman Nature Center in Barrington, Ill.

Dinelli, along with the North Shore Country Club, is also involved in turfgrass research. In 1997, a putting green was built at the club to evaluate bentgrass varieties for sponsors GCSAA, the U.S. Golf Association and National Turfgrass Evaluation Program. The green is still in use.

In conjunction with the University of Illinois, Dinelli has conducted research on composts used on turfgrass, and, he serves on the Illinois Turfgrass Research Review Committee.

Sharing his experiences with students and peers is also important to Dinelli. Each year, he teaches a seminar on golf course management at Harper College and has been involved with the college's Park Management and Horticulture Advisory Committee for the past 15 years. His writing has been published in various publications.

Selection for the Scotts Tradition of Excellence Award was based on several criteria: teaching and mentoring experience; leadership; environmental responsibility; research and innovation in cultural or management practices; and professional involvement. The selection committee was composed of officers of the GCSAA and John Johnson, vice president of sales for Scotts Professional Business Group.

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The American Society of Golf Course Architects (ASGCA) has introduced its first-ever Suppliers Directory on CD-ROM — an interactive, electronic version of the group's printed directory. By using the CD-ROM directory, people in the golf industry can quickly search and select information on more than 90 product and service providers, including contact information on the 139 member architects of the ASGCA. Data once submitted by suppliers in printed format, is now electronically scanned and categorized under one or more listings including: Irrigation System and Equipment; Seed, Sod & Nursery Products; Consultants & Professional Services; and Golf Course Builders. From the supplier listings, users can also link directly to live URL's (web site addresses) and can send email directly to key individuals. The electronic directory will be published annually. The CD-ROM can be ordered by sending a check for \$25 (U.S.) to the American Society of Golf Course Architects, 221 North LaSalle St., Chicago, Ill. 60601.

TPC LAS COLINAS REDO NEARS COMPLETION

LAS COLINAS, Calif. - TPC Four Seasons Resort Las Colinas is nearing completion on Phase I improvements. Nearly one-third of the \$3 million worth of improvements has been completed since the plans were announced last March. The work has been led by course architect Jay Morrish, the original designer of the TPC.

HARBOTTLE'S BANBURY OPENS

EAGLE, Idaho - BanBury Golf Club, designed by John Harbottle III, has opened for play here. Located on the Boise River, the 18-hole course is part of the BanBury Meadows realestate development. It is operated by Tradition Golf, a new company owned by PGA of America member Jerry Breaux superintendent Clint Travis.

PRESIDIO CONVERTS TO BENTGRASS

SAN FRANCISCO — Arnold Palmer Golf Management has begun converting existing greens to bentgrass at Presidio Golf Course. The conversion began last October and will conclude in early 2000. Currently, the course's putting surfaces are poa annua.

Superintendent Sapochak's first golf course design called a hidden gem

By PAUL L. KAUFMAN JR.

▼ EORGETOWN, S.C. — About 30 miles south of Myrtle Beach lies Winyah Bay Golf Club, a hidden gem opened a year ago as the first design effort of former golf course superintendent Matt Sapochak.

Sapochak had honed his design skills as a shaper and construction superintendent for Pete and P.B. Dye at Debordieu Golf Club in Georgetown and Prestwick Country Club in Myrtle Beach, and had done a substantial in-house renovation while superintendent at Deertrack Golf Course in Surfside Beach.

The current general manager of Winyah Bay, Sapochak said: "When I had the opportunity to design Winyah Bay, I

Continued on page 54



Winyah Bay Golf Club ssouth of Myrtle Beach is receiving international acclaim.



Austria's venerable Innsbruck-Igls Golf Club faces major renovations.



before (inset) and after renovation.

Matthews busy at home and abroad

VILLAGE OF IGLS, Austria - Golf course architects Matthews & Nelhiebel have begun their first European project: design of renovations to the Innsbruck-Igls Golf Club, in the Austrian Alps here.

America's Bruce Matthews and Vic Nelhiebel traveled to Austria at the invitation of the club's agronomy consultant, Josef Leinauer of Peiting, Germany. Leinauer is a pioneer in the use of combined subsurface irrigation and drainage systems for golf greens and athletic fields.

Innsbruck-Igls Golf Club is one of the older courses in Austria, founded in 1935 as a mnine-hole course. Its 18-hole course in nearby Rinn lies on the forested lower slopes of the Patscherkofel Mountain, site of the 1964 and 1976 Winter Olympics downhill ski venue. In fact, the community of Rinn's local ski slope crosses several holes. From almost anywhere on the course, there are views of the Inn Valley below and 10,000-foot Alpine peaks beyond.

Nearly all members of the club prefer to walk the course, despite the challenging terrain. Played from the championship tees, Innsbruck-Igls measures 5,945 meters, with a par of 71.

The initial design renovation focuses on improved bunkering and green visibility, as illustrated by the 12th Wildbach hole, a 345-meter par-4, playing uphill. Because of the sidehill locations and surrounding fir forest, drainage of spring water and defining the fairway limits in

Continued on page 52

Austin course recreated from memory

By FRANCES G. TRIMBLE

The task was straightforward: Take readers of a club history back in time to 1924 and show them a golf course that has not existed in its entirety since the late 1940s and, to the best of anyone's knowledge, was never represented on a scorecard or in the local newspaper.

Without the recreation, modern golfers would have difficulty believing that the course where teaching legend Harvey Penick once caddied, and early Southwest Conference golf championships were contested, once featured tee shots over a now-bustling north-south thoroughfare called Red River Street. The holes on the east side of Red River were replaced by a shopping center in the early 1950s, after the course was sold to the city of Austin. The land west of Red River remains a nine-hole municipal layout known as Hancock Park.

All agreed a recreation was historically important, though golfers who played the course in the 1920s and '30s were in

Continued on page 53

GOLF COURSE NEWS March 2000 43



Pierman to run Frontier's Southeast division

NORTH PALM BEACH, Fla.

— Veteran course contractor
Jerry Pierman has joined Jones
Mills, Pa.-based Frontier Construction Co. as vice president
of the firm's new Southeastern
Division, based here.

Pierman brings 30 years of diverse experience to Frontier, along with a presence in the Southeastern, Caribbean, Central and South American markets. Frontier has contracted to build 11 new holes for designer Steve Nicklaus at Ibis Golf & Country Club in Palm Beach Gardens, Fla.

"We couldn't be happier to have someone of Jerry Pierman's caliber on board," said Nick Scigliano, president of Frontier Construction Co. "I've already seen how his skills, experience and reputation have positively affected our organization. I'm confident his addition will give Frontier a credible foothold in the Southeast."

Pierman spent nine years, beginning in 1972, as treasurer and vice president of the Jack Nicklaus Companies before becoming vice president of a major international course contractor. He then served as manager of Tom Fazio's design firm, leaving to become general manager of development at Pete Dye's Old Marsh Golf Club in Palm Beach Gardens, Fla.

In 1987, Pierman formed a course construction partnership responsible for several projects, including two Jack Nicklaus de-- New Albany (Ohio) signs -Golf Club (GC) and Sycamore Hills Country Club outside Fort Wayne, Ind., and The Arthur Hills Course at Old Trail GC in Jupiter, Fla.. In 1990, Pierman bought out his partners and formed Pierman Golf Co, which went on to build, among others: Ron Garl's Indian River Country Club in Vero Beach; The Medallion Club for Jack Nicklaus II in Columbus, Ohio; The Legends of Indiana, a Jim Fazio layout in Franklin; Scott Miller's Bentwater Country Club in North Houston, Texas; and Saddle Brooke GC, a Keith Foster design in Tucson, Ariz.

During this time, Pierman also served two years as president of the Golf Course Builders Association of America and spent six years on the organization's board of directors. In 1995, Pierman was president of his own construction management consulting firm, JL Pierman International and Associates, whose recent clients include Ruitoque Golf & Country Club, a Golden Bear Design in Bucaramanga, Colombia, and Blake Tree National Golf Club in Houston.

"I'm excited to be back in the course construction business full-time," Pierman explained.

"As I've gotten to know Nick, I'm increasingly impressed by his philosophies regarding what it takes to build a solid company that does quality work."

Frontier's recent project list includes 18 new holes at the Ted Robinson-designed Los Suenos Resort, a Marriott-managed property on Costa Rica's Pacific coast; Links at Spring Church (Pa.), which will open for play this spring; a renovation with Ault Clark & Associates at Lawrence Park Golf Club in Erie, Pa.; and a renovation with Ron Forse at Sunnehanna Country Club in Westmont, Pa., an A.W. Tillinghast design and longtime host to the Sunnehanna Amateur.

BURNS' SEBASTIAN HILLS SET FOR SPRING OPENING

XENIA, Ohio — Sebastian Hills Golf Club is growing in, with a late-spring opening expected. Burns Golf Design designed the course as well as the initial master planning of the surrounding real estate, and Hunnicutt Golf built the course. The par-72 course will be somewhat unusual, with a par-35 front nine, featuring three par-3s, and a par-37 back nine, featuring three par-5s. Sixty-five sand bunkers provide beauty and challenge to the layout. Streams, and four lakes will come into play on 14 holes.





Architects recognize Spain's Ortiz-Patino

SAN ROQUE, Spain — Valderrama Golf Club owner and President Jaime Ortiz-Patino, will receive the 2000 Donald Ross Award from the American Society of Golf Course Architects (ASGCA) at the society's 54th annual meeting in Newcastle, Ireland.

The ASGCA's most presti-

gious honor, the Donald Ross Award is presented annually to an individual who has made significant contributions to the game of golf and the profession of golf course architecture.

"Mr. Ortiz-Patino has become a highly regarded figure in the golf industry because he has given a great deal of his time and talent to emphasizing the importance of environmental stewardship and preservation of the traditions of the game," said ASGCA President John LaFoy.

Among the highlights of Ortiz-Patino's career was the opportunity to host the 1997 Ryder Cup. Prior to the Ryder Cup, Valderrama played host to nine editions of the PGA European Tour's Volvo Master, and has since hosted the World Golf — American Express Championship. Valderrama is the only international golf course to become fully certified by the Audubon Cooperative Sanctuary System for Golf Courses.

VALDERRAMA DECLARATION

Recently, Ortiz-Patino and officials from the world's top govern-



Jaime Ortiz-Patino

ing bodies of golf joined forces to endorse the Valderrama Declaration on golf, environment and sustainability. The initiative was signed to promote environmental awareness and encourage sound environmental practices for golf courses and other sports facilities.

Held in November at Valderrama Golf Club, the meeting was the first-ever U.S.-European Golf Environment Summit, and it brought together members of the United States Golf Association Turfgrass and Environmental Research Committee, Royal & Ancient Golf Club of St. Andrews and national ecology officers from several European golf federations.

The declaration, which is also supported by the International Olympic Committee, United Nations Environment Program and World Wide Fund International, establishes a proactive perspective on the golf community's role in initiating and supporting environmental education, research and conservation programs.

The declaration states the golf community's support of the practices and principles of the Audubon Cooperative Sanctuary Program in North America and the Committed to Green initiative in Europe. These are two related programs designed to promote environmental awareness and encourage the implementation of sound environmental practices on golf courses.

STORIED LIFE

The grandson of mining baron Simon Patino, Ortiz-Patino led what many would consider a storybook life: raised in a fourstory castle; educated in the finest schools; and even raced sports cars until his father convinced him to give it up.

An avid tennis player, Ortiz-Patino's talents earned him spots in both the French and Italian Open tennis tournaments before a shoulder injury eventually forced him to redirect his talents to skiing and golf.

Ortiz-Patino's interest in the game dates back to around 1956 when he caddied for Dai Rees in the Italian Open. In lieu of a bag fee, Rees presented Ortiz-Patino with tickets to the 1957 Ryder Cup at Lindrick in England.

In 1985, Ortiz-Patino and other businessmen purchased Las Aves Golf Club in Sotogrande. He later changed the name to Valderrama.

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New 18-hole Colorado course to include island green, open in 2001

Andy Johnson design set to begin final seeding this spring

By BOB SPIWAK

IRESTONE, Colo. - Preliminary seeding on tees and the driving range beganlate last year at Coal Ridge Golf Club north of Denver. The 18-hole, 7,100-yard championship course near the town of Firestone is scheduled to be ready for play in the spring of 2001, with final seeding to begin early in 2000.

Designed by Andy Johnson, the course contains six ponds, the largest of which is 15 acres, according to owner Tom O'Malley. A natural centerpiece, the pond is home for number 4, an island par-3 of 145 yards from the blue tees; number 3, a 525yard par 5, and number 16, a very short par-4 of 292 yards.

"The lake seemed to be a natural convergence point where a lot of holes could come together," said Johnson. The 16th offers a choice of going for the green over the water or laying up with a long iron to the fairway along the

lake and then a short iron to the pin. "The bets are getting higher by 16," Johnson said. "And it offers risk and reward, or prudence and safety.'

This hole is indicative of the strategic versus penal nature of the course, noted Tom O' Malley, who also shares project manager duties with Troy Weidner. "We designed the course to have fewer penal shots, like forced carries and blind shots, in favor of a strategic philosophy. It is a design rich in risk versus reward with a number of different routings making for an interesting and enjoyable round of golf.'

Coal Ridge, which may have a name change by opening day, offers five sets of bluegrass tees ranging from 7,100 yards from the tips to 5,400 from the forward markers. The greens are a 50/ 50 mix of Penncross and Providence bentgrasses with bluegrass and ryegrass fairways in an 80/20 mix. The course is nurtured by a fully automated 1,400-head Toro system, which includes



Coal Ridge Golf Club in Firestone, Colo.

A natural centerpiece, the pond is home for number 4, an island par-3 of 145 yards from the blue tees; number 3, a 525-yard par 5, and number 16, a very short par-4 of 292 yards.

fertigation, 19 satellites connected to a central computer, and a weather station. R&S Costruction of Phoenix did the shaping, which included moving more than 500,000 cubic yards of earth.

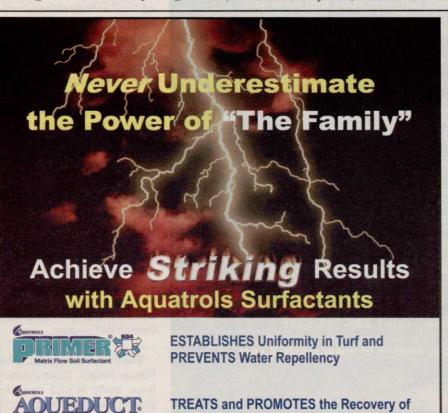
Both owner and architect said there were no major environmental roadblocks to the project. Although there are wetlands on the property, O'Malley said that by working closely with the Army Corps of Engineers, crossings of these areas presented little problem. Johnson noted that the total wetland impact was under 12,000 square feet. "There was," he said, "a brief time where protection of a certain type of mouse appeared to be of concern."

O'Malley pointed out that a new type of decking, called IPE wood (from Brazil) was being employed on the bridges. "This is like ironwood," he said. "Most other places have traditionally used yellow pine, and there have been problems with deterioration. With two 200-foot long bridges and numerous other creek crossings, we wanted something more durable. The IPE is guaranteed for 40 years. Of course, it's so new that there isn't any around that's 40 years old."

Coal Ridge, the working name for the course, is subject to change by the time it opens. A prime consideration is a name which will be compatible with an attractive logo. Johnson thought that a heron-oriented name was being considered (among four others) as the big birds are plentiful around the

Intended as a daily-fee venue, the course is surrounded by 200 acres, 175 of which are zoned residential. The other 25 are commercially zoned, and O'Malley, a part owner of Killarney Hills in River Falls, Wis., stated that the Coal Ridge property would be for sale with or without the course.

Asked if he was at liberty to divulge the cost of the Colorado project, he replied, "very expensive."



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Maxwell, NGF team up on ADA-compliant design

SMYRNA, Tenn. — Maxwell Golf Group's golf course design division has been working with the National Golf Foundation (NGF) to design a project that will meet the guidelines of the Federal Americans with Disabilities Act. (ADA).

When funding is approved, the nine-hole course will be an addition to the city of Smyrna's existing 18-hole Smyrna Municipal Golf Course.

"From the day we first spoke with the NGF and Hal Loflin (Smyrna Municipal's golf profes-

Schmidt-Curley to design Calif. desert layout

HEMET, Calif. — Heartland Village LLC, consisting of Heartland of Seattle and MSK Development Group of Carlsbad and Landmark Golf Co. of Palm Desert have signed a contract to develop an 18-hole golf course at a new 665-acre active adult community near Hemet's western border.

Groundbreaking for the golf course community, which is approved for 1,775 homes, and the golf course is expected to take place in early 2000.

"This is a great piece of property for a golf course," said Ernie Vossler, president of Landmark Golf. "The natural topography is perfect for a course that offers dazzling vistas and challenging holes," he said. "I've had my eye on the property since 1982."

Schmidt-Curley Design of Scottsdale, Ariz., has been selected to design the course.

"This property has the same terrain as PGA West, the La Quinta course we designed with Pete Dye," said Brian Curley, a principal in the firm which has been involved in the design of many Landmark courses.

"It will play a lot like PGA West," Curley noted. "It has a rock-strewn mountainside with a natural water course transitioning to a gently sloping plain. The isolated mountainside gives to the opportunity to create several holes that are framed by rugged rock formations from tee to green. The gently sloping areas provide the setting for lots of water features."

The par-71 layout will measure 6,706 yards.

"But we're putting the emphasis on playability," Curley said.
"We're very conscious that a lot of our players will be seniors."

The golf course will be open to the public, with special consideration given to residents of the active adult community for people over 55. sional/general manager)," said MGG senior design associate Nathan Crace, "we were excited about the prospect of being involved with such a proactive approach to making golf accessible to more people."

The proposed nine-hole addition will be an executive course to be used primarily as a facility for beginning golfers and juniors. The par-29 layout will have seven par-3s and two par-4s, a new lake, and a number of bunkers scattered throughout. The mostly wooded site will use gently rolling mounds to help contain shots, add aesthetic appeal, and delineate areas between holes.

"The size and configuration of

the property dictated that we create an executive-style layout," Crace said. "And that provided a perfect fit for Hal's vision of a beginners' short course. He asked us to look into the ADA compliancy issue because the course is down the street from one of only seven federal occupational therapy rehabilitation centers in the country, and he has the foresight to make this

one of the few golf courses which would be truly accessible to physically challenged golfers."

Crace said the next step is to secure funding for the project. The city is growing, with the strong support of its citizens and businesses, Crace said, adding: "I believe a facility such as this can only add to the quality of life the residents of Smyrna already enjoy."

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* 1998 GCSAA Plant Protectant and Fertilizer Usage Report. Product effectiveness for preemergence crabgrass control







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Lohmann Golf breaks ground in Virginia

RUTHER GLEN, Va. — Ground has been broken here at Mattaponi Springs Golf Club at Penola Station, Lohmann Golf Designs' first foray into the East Coast market.

Developed by The Bellemount Corp. of Beaverdam, Va., the 18hole Mattaponi Springs project has secured all the necessary permitting. Weather permitting, the course will open in the fall of 2001.

With LGD's assistance, Bellemount is building this upscale, daily-fee course in-house. The site here in Northern Virginia is heavily wooded, so current work centers on the clearing of 75 to 80 acres of forest, according to LGD senior architect Mike Benkusky, who added that dirt-moving/course-shaping should begin this spring.

Mattaponi Springs Golf Club at Penola Station will take shape on a piece of property laden with history. After emigrating to Williamsburg in the 1700s, the George family settled here in Ruther Glen during the early 1800s. They christened their homestead "Rose Hill" after the family's ancestral estate in the Midlands region of England.

Penola Station, whose moniker incorporates the local native-American word for cotton, was built in 1886 to serve Rose Hill Lumber Co., which commanded its own spur off the main northsouth line of the Richmond, Fredericksburg & Potomac (RF&P) Railroad.

Nineteenth-century remnants of the Rose Hill estate are still evident on the site: a main house, a carriage house, even a cemetery. Restoration of these artifacts will play a major role in the three-stage development of Mattaponi Springs. During Stage I, for example, the cemetery and carriage house will be refurbished; the latter will be emploved as the initial clubhouse. Stage II will include construction of the final clubhouse, overlooking the 9th and 18th greens. Stage III calls for renovation of the main house.

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First phase of Oakmont facelift now complete

OAKMONT, Pa. — Frontier Construction Co. has completed Phase I of a two-stage renovation project here at storied Oakmont Country Club, site of a record seven U.S. Open Championships.

Implementing a design by Toledo, Ohio-based Arthur Hills/Steve Forrest and Associates, Frontier handled construction of a unique short-game facility which features a 12,000-square-foot chipping green, three practice bunkers, several grass bunkers and a dedicated 2-acre fairway/rough hitting area.

The new facility will open for play this spring. Phase II of the project — which involves the wholesale upgrade of Oakmont's existing practice facility, including a new tee and target greens replicated from the championship West course — is scheduled to take place as early as next fall, after the 2000 playing season has come to a close.

"Practice facilities like this one are becoming ever more popular at private clubs, mainly because a higher amenity standard has been set by new upscale daily-fees and resorts," said Nick Scigliano, president of Frontier Construction Co. "But it's not easy for older, established suburban clubs like Oakmont to find the space for these practice areas. That was Hills' challenge with this project, as the topography was severely sloped and limited. In fact, an existing maintenance road had to be rerouted to create the necessary space on the property."

Once this was achieved, Hills and Frontier succeeded in creating a practice facility that tests all aspects of the short game, while mimicking those greenside design elements found on the club's famed West Course.

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Golfplan changes name to reflect new partnership

SANTA ROSA, Calif. — Golfplan, The Ronald Fream Design Group has officially changed its corporate identity to Golfplan/Fream and Dale, reflecting the new partnership status of vice president and senior golf course architect David Dale.

Fream formed Santa Rosa-based Golfplan in 1972; the firm has since designed more than 150 courses in 52 countries around the world. Dale joined Golfplan in 1988, fresh out of Washington State University,



David Dale

where he earned a bachelor's degree in landscape architecture.

"Ron had me on a plane to Asia within six months," recalled the 38-

year-old Dale, whose course credits include Guam International Country Club and Sparrebosch Clifftop Estate & Country Club, Golfplan's new design perched on Africa's southernmost tip. The first nine at Sparrebosch is now open for play; the second nine is scheduled to open in June.

Dale also served as lead architect at Eagle Ridge Golf Club, a layout that opened last fall in Gilroy, Calif.

"I'm really excited about our new focus on the U.S. market, where we now have several projects in the planning phase," said Dale, who will spearhead Golfplan's first two East Coast projects - Ocean View Golf Course in Norfolk, Va., and Shore Gate Golf Club in Oceanview, N.J. - both of which will break ground this spring. "Our work abroad has consistently earned a great deal of attention for its quality and invention. Trouble is, not many American golfers have seen them. I'm confident our current crop of U.S. projects will finally show people here in the States just what our firm can do."

In addition to his East Coast projects, the Missoula, Mont., native is overseeing Golfplan's full-scale renovation of Santa Barbara (Calif.) Golf Club. Dale"s design at Bonari Kogen Golf Club — an18-hole project in the highlands outside Numajiri, Japan — will open for play June 3.

Meanwhile, his work continues at the opulent Nine Bridges Country Club, a \$15-million Gleneagles homage on Cheju Island, South Korea.

"In my view, David's design work measures up to any golf course architecture being produced today," said Fream, 58. "Our new partnership is recognition of his years of outstanding service to Golfplan. With this move, he now has a more tangible stake in how we do business."

Renovated Norman track opens for business at Florida's Doral

MIAMI — Having survived Y2K, the Southeastern United States was hit on Feb. 15 with "GWC" madness — as in The Great White Course at Doral Golf Resort and Spa.

Greg orman's latest design is the Southeast's first "desertscape" golf course and presents some distinctive and challenging features.

The Great White was constructed on the parcel of land where Doral's White and par-3 Green courses formerly existed. The new course complements the Blue Monster, home of the Doral-Ryder Open, with its tournament-caliber, championship conditions.

"The Great White is one of the most unique courses we've designed," said Norman. "We took a small parcel of 83 acres and designed a tournament golf course measuring more than 7,100 yards. That is what I'm most proud of. In addition, we designed a course that Florida golfers will really appreciate. It's different than any course in the Southeast. It has many of the same characteristics as a desert Southwest golf course, but in place of cactus, we have palm trees."

The course's desert design features a landscape of tightly packed coquina sand, accented with traditional South Florida foliage, including more than 2,400 native palm trees. The trademarks of the Great White are a series of pot bunkers that are characteristic of the courses Norman played growing up in Australia. There is no rough on the course, with coquina sand used in all the transition areas to separate the holes.

The 130-acre course features gently sloped, well-guarded greens, more than 222 pot bunkers, 20 acres of water and four different types of turf, including zoysiagrass, Tidwarf Bermudagrass, Tifeagle and GN-1.

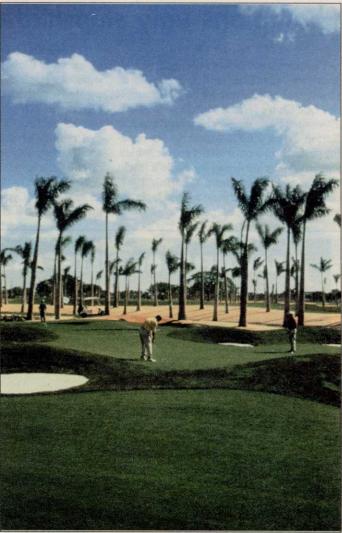
The design allows the golfer to use the three major skill sets of the game: distance, accuracy and touch.

The par-72 layout, featuring water on 14 holes, has the only triple green in south Florida: holes 11, 13 and 17 each share a putting surface that spans more than 25,000 square feet. The low-profile greens average 6,000 square feet, with the exception of the triple-green complex.

An 18,000-square-foot practice putting area is connected to the 18th green, a trademark Norman incorporated at his Medallist Golf Course in Hobe Sound, Florida.

Norman eliminated golf cart paths. Golfers have the added option of walking the course with or without the assistance of a caddy or using golf carts that can be driven on the coquina sand.

The Great White uses natural marshes and wet lands used as water drainage areas.



The Great White Course at Doral Golf Resort and Spa.

ARMSTRONG GETS NEW MONIKER

FRANCESTOWN, N.H. — Armstrong Associates, a golf course design and architecture firm headquartered here, has changed its name to Armstrong Golf Architects, LLC. As such, it modified its business structure from a sole proprietorship to a Limited Liability Company (LLC). In the past 10 years Armstrong Associates has provided planning and design services to more than 100 golf courses.





Champions ugly stepchild undergoing metamorphosis

By FRANCES G. TRIMBLE

The conversation between golf course architect Tom Fazio and Jack Burke of Houston about the remodeling of Champions Golf Club's Jackrabbit course began in 1986 when Fazio was working on a layout at Barton Creek Club in Austin. In the ensuing period problems with the course, which was originally designed by Fazio's uncle George and opened for play in July 1964, only got worse. Everyone agreed Jackrabbit became an "ugly stepchild."

The course, which according to a Champions Golf Club history was designed with "an Eastern look," has always rewarded length off the tee and an ability to turn the ball. It became particularly difficult when played in a north wind and Jackrabbit's greens, elevated and much smaller than the expansive surfaces found on the Champions' Cypress Creek, were difficult to hit. Other differences between Jackrabbit and Cypress Creek include housing along most holes and street crossings.

By the late 1970s, the course had moderately severe drainage problems, owing primarily to naturally flat terrain and a construction explosion that took place in the FM 1960 area north of Houston. What was a rural area in the early 1960s with one development, one service station, and one grocery market ,had become an anthill criss-crossed by major thoroughfares and dotted with subdivisions and malls.

On-course housing also affected Jackrabbit. Once dwellings were built, there was an added problem with real-estate property lines and out-of-bounds situations created by those lines. The atmosphere was claustrophobic once cart paths were built, although, for many years, Jackrabbit remained the only Champions layout with trails. When rains came, which they invariably do in Houston, play shifted to the course with paths, making a difficult maintenance situation nearly impossible.

Jackrabbit, which plays at 7,000 yards and some think is a more difficult test than Cypress Creek, became an after-thought. Several fairways were used for parking during tournaments. Members grumbled about conditioning. Yet, there never seemed to be a good time for a facelift.

Jackrabbit's moment has arrived. Phase I of remodeling will begin soon, according to course superintendent Charles Joachim, "in the first quarter of 2000."

The back nine of Jackrabbit will be remodeled and completed in late fall 2000 and work on the front nine will commence in early 2001. Joachim said nothing is being done to Jackrabbit "that isn't absolutely beneficial."

The superintendent, who has been at Champions since 1985, said: "Primary play areas will be moved away from out-of-bounds as much as possible. A drainage system will be established and the irrigation water storage capacity will be doubled. All-weather putting surfaces will be constructed; a modern irrigation system will be installed. Concrete service roads/paths will be connected. The best turfgrass will be planted on all primary playing areas."

Andy Banfield, the point man for Fazio Golf Course Designers, Inc., agreesd that all changes are improvements and that the overall plan is basic — fundamental.

"Deepening the lakes will create more topographical relief and more dramatic looking golf holes," Banfield said.

He is confident that visual separation of real-estate and golf areas can be achieved and that the changes to holes will encourage better golfers to use more strategy.

For instance, the 18th hole, now a shortish par-5, will become a long par-4. The green will be moved forward, allowing a lake on the golfer's right to be more of a threat.

The teeing ground for the 10th hole will be placed where the 18th green is now, and No. 10, a par-5 that doglegs to the left, will become somewhat longer. A lake that now sits rather inconspicuously behind the 10th green will be more apparent — not only on the 10th hole, but also on the par-4 12th.

Joachim agreed that the 12th, which was never long, became a "nothing" hole with the loss of a pine tree which threatened the right side of the landing area. The lake greenside left was little or no threat.

"After renovation," said Joachim, "the water will definitely be in play. At least half the pin placements will be behind the lake which will toughen the hole considerably."

Banfield and Joachim agree a dry creek that once crossed the property and drained the housing development west of Champions Drive, had become more of an eyesore than a water feature.

"When George Fazio came," said Joachim, "he wanted that creek to meander, to be like a bayou you might find in Louisiana that filled after rain and emptied in dry weather."

What was once a creek, has become, over time, a wide, grass-covered swale

Continued on next poge



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ANALYSIS		WT.	LBS/M	LBS/A	INGKEDIENT	ACTIVE/A	N	P	K	NITROGEN	PHOSPHOROUS	POTASH	SGN
5-5-25 w/.103% Dimension®	ATT5 DM5	50	3.50	152	Dimension®	.16	.18	.18	.88	1.95% Ammoniacal N 3.05% Urea Nitrogen	Ammonium Phosphate	Muriate of Potash	125
5-5-25 w/.25% Dimension	ATT5 DM50	50	3.50	152	Dimension	.38	.18	.18	.88	1.95% Ammoniacal N 3.05% Urea Nitrogen	Ammonium Phosphate	Muriate of Potash	125
10-5-25 w/ 50% Nutralene® & .103% Dimension®	ATT10 1DM5	50	3.50	152	Dimension®	.16	.35	.18	.88.	1.95% Ammoniacal N 3.68% Urea Nitrogen 2.56% SAWSN 1.81% WIN	Ammonium Phosphate	Potassiom Sulfate	125
18-4-10 w/ 40% Nutralene® & .164% Dimension®	ATT18 WDM5	50	3.50	152	Dimension*	.25	.63	.14	.35	1.56% Ammoniacal N 10.14% Urea Nitrogen 3.69% SAWSN 2.61% WIN	Ammonium Phosphate	Potassiom Sulfate	125
25-5-10 w/ 65% Nutralene® & .25% Dimension®	ATT25 5DM5	50	3.50	152	Dimension [®]	.38	.88	.18	.35	1.95% Ammoniacal N 8.83% Urea Nitrogen 8.33% SAWSN 5.89% WIN	Ammonium Phosphate	Potassiom Sulfate	125



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Berlin course gains nine-hole addition

BERLIN, Germany - Essen-based golf course architects Deutsche Golf Consult (DGC) are relishing the opportunity to create a unique extension at Berliner Golf Club Gatow. The existing nine-hole layout was built by the Royal Air Force in the late 1960s and has developed into a parkland layout typical of central -outhern England.

DGC was awarded the contract to extend the course to 18 holes and build more suitable practice facilities. Seven hectares of new land, in the shape of quarries and former open-cast mines. were made available. While offering versatile terrain, the quarries posed a problem of continuity for DGC architect Rainer Preißmann said: "If the former coal mine is to be used as a topographic world to experience, the design of the old golf course can only be conditionally integrated into the extension.

"By integrating the old golf course into both half rounds, the familiar golfing environment will suddenly throw up totally new challenges and turn the game of golf (on the entire grounds) into a distinctive experience."

Ugly stepchild

Continued from previous page

that is as straight as a yardstick.

The swale will revert to the feature that George Fazio once envisioned.

In the 30 years since the course opened, governmental agencies have been added to watchdog the area's water situation. One of those is the Houston-Galveston Subsidence District. Joachim said the district controls the amount of water Champions can use and attaches a surcharge when the amount is exceeded.

That is why the state-of-the-art irrigation system is going in and why the lakes are being deepened," he said.



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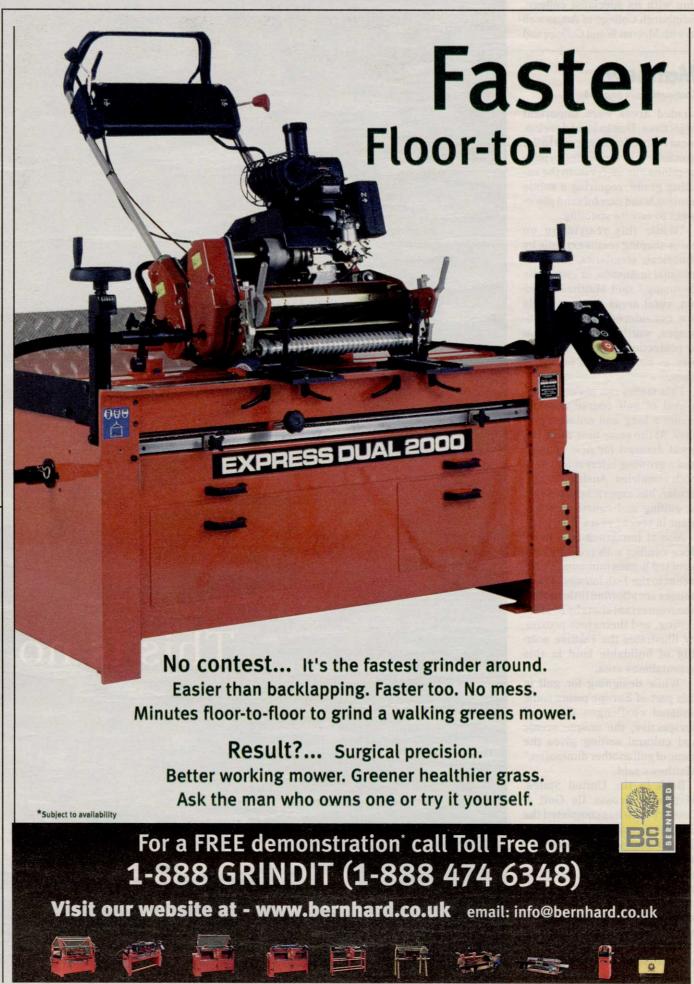
It is the dramatic contouring of the former coal reserve ground that will be immediately recognizable, Preißmann said.

"The pit will be particularly attractive from an aesthetic point of view and will, at the same time, have an explosive sporting effect once integrated into the fairway concept," he added. "This situation is certainly unique in Germany and can, therefore, become a trademark for the golf course of the Berliner Golf Club Gatow.

Work is due to start this spring.



Berlin Golf Club Gatow





British designers offer new architectural masters program

GUILDFORD, Surrey — The British Institute of Golf Course Architects (BIGCA) has developed a new Masters program in golf course architecture, extending its educational thrust into a degree-level qualification.

The degree course is to be established at Heriot Watt University in Edinburgh in conjunction with its specialist college, Edinburgh College of Art as well as with Merrist Wood College and

Elmwood College in Cupar, Fife.

The course, which will take the form of a nine-month diploma in golf course architecture, leading to a three-month Masters program, will be full-time residential. It will parallel, in its first stage, the present part-time/distance learning diploma operated by the BIGCA at Merrist Wood. This current two-year diploma course will also be expanded to take in a two-center field study program in both Surrey and Fife, giving students the chance to experience the historic links courses of Scotland.

BIGCA Educational Coordinator Ken Moodie was upbeat about the developments.

"It is a tremendous initiative

for the three educational establishments to have come together with the institute to establish this new degree program and develop the existing diploma course in a complimentary manner." he said.

Inquiries for educational services in golf course architecture have been received from three other universities — one each in Poland, Switzerland and China.

Grant aid for the education arm of BIGCA has been agreed by the Royal & Ancient, which has granted financial assistance for the next three years to a total value of £30,000. This is in addition to the £7,500 given for the further development of the BIGCA library. Toro and Barenbrug are similarly continuing their support with the ongoing Student Architect Award and Student Prize.

Matthews

Continued from page 43

shaded areas were important objectives. Due to local development restrictions, changes to the ground level were limited to plusor-minus one meter from the existing grade, requiring a subtle approach and careful sand placement to ensure visibility.

"While this restriction on earth-shaping seems extreme by American standards, it is not unusual in Austria, or especially Germany," said Matthews. "Often, rural areas and farmlands are considered cultural landscapes, worthy of preservation or protection in much the same way as our wetlands or shorelines."

This status can make the approval of golf course developments a long and arduous process. At the same time there is a great demand for new courses and a growing interest in golf in both countries. Austria, in particular, has experienced a boom in golfing and course development in recent years.

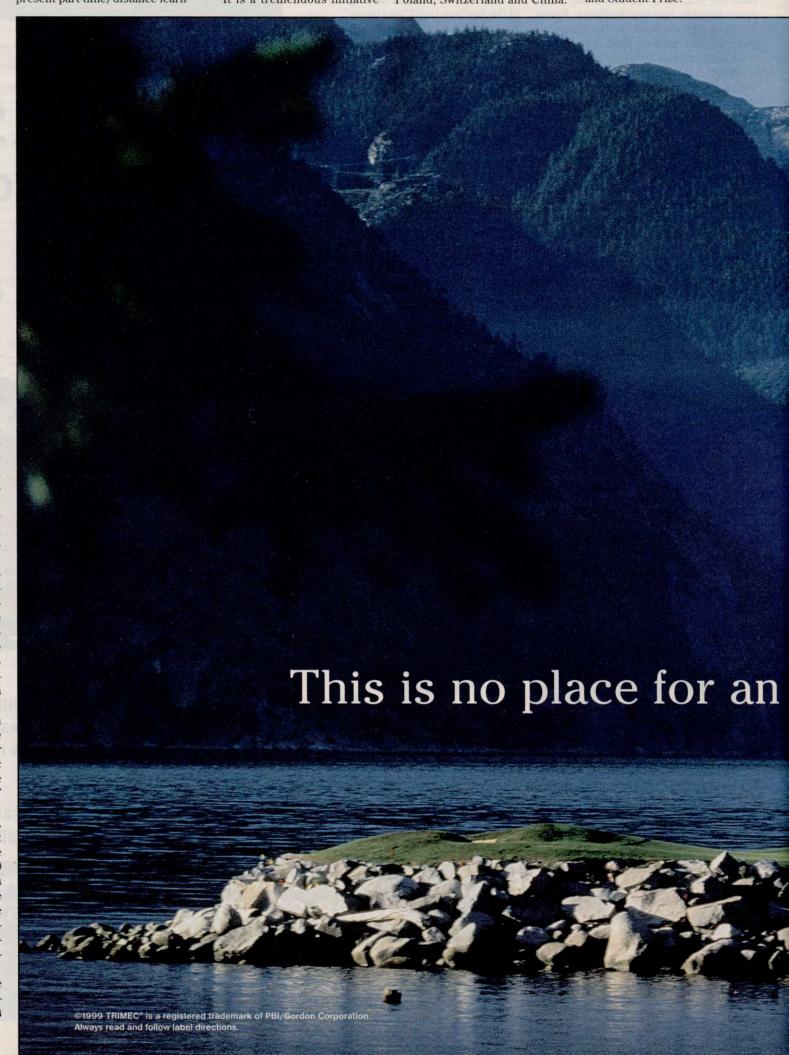
Also at Innsbruck-Igls, to reduce conflict with recently constructed homes immediately adjacent to the 18th fairway. These houses are afforded little protection from errant shots by in-place netting, and their close proximity illustrates the relative scarcity of buildable land in this mountainous area.

"While designing for golf in this part of Europe poses some unusual challenges from our perspective, the unique scenic and cultural setting gives the game of golf another dimension," Matthews said.

Back in the United States, Matthews Grosse Ile Golf & Country Club has completed the first phase renovations of its 1919 Donald Ross layout. Matthews was retained to design the project in a historically sensitive manner. The initial phase included the restoration of bunkers in the original style and format of Ross' design.

The club's greens committee and Matthews reviewed the his-

Continued on page 53





Tournament Players Club planned for Mexico City

By PETER BLAIS

MEXICO CITY — Construction is scheduled to begin late this summer on a PGA Tour Tournament Players Club golf course 30 miles northwest of the Mexici City.

Hurdzan/Fry Golf Course Design — in conjunction with professional golfer John Cook and PGA Tour lead designer Chris Gray — has completed the preliminary design for the 18hole, private/resort course scheduled to open in 2002.

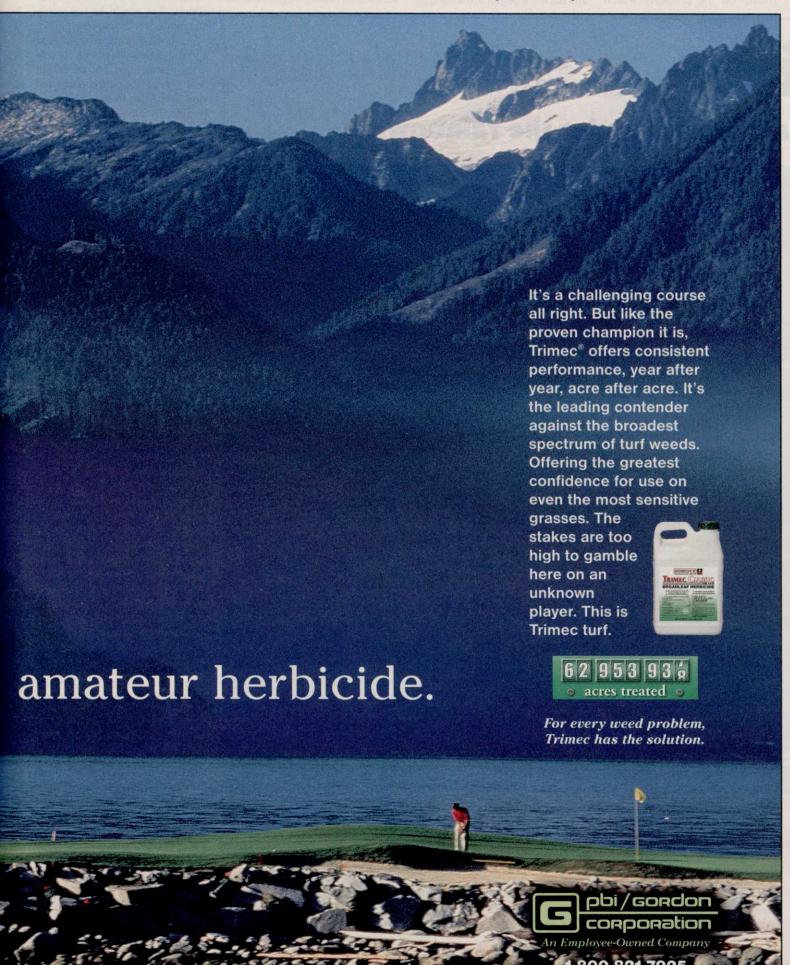
"The housing plan has been wrapped around the golf course," said Hurdzan/Fry Senior Design Associate David Whelchel. "They let us put the golf course where we wanted it, within reason."

Group IUSA, which has built several courses throughout Mexico, is the developer, according to Whelchel. The first phase of the TPC project will include the course, a hotel and commercial area. A second course is under consideration. Corporate villas are also planned in hopes of eventually landing a PGA Tour event, Whelchel said.

Whelchel said the property is located at 7,000 feet altitude, which should allow for plantings of bentgrass, ryegrasses and fescues, although the final turf selection has not been made. Bisecting the property are two small rivers, one of which has carved a bluff that will play an important part in the course design.

"On a clear day you can see two volcanoes east of the city," said Whelchel of the mountainside site. "We'll probably move more than a million yards of earth."

Cook's father, Jim Cook — who runs a tournament management firm and oversaw the Mexico Open — brought the Hurdzan-Fry team in on the project, Whelchel said.



Austin CC

Continued from page 43

The situation was resolved in part with oral histories from two surviving Austin Country Club members who recalled the layout, along with approximate yardages and course features. Still, the descriptions did not provide quite enough information for a draftsman to draw the holes on paper.

Enter Ed White, 1936 Walker Cup Team member and the University of Texas' first NCAA Individual champion.

Asked what he remembered about the course he played as a Texas undergraduate, White responded, "Want me to draw it for you?"

White's sketch was turned into a color rendering by Planned Environments, Inc., the firm that also did renderings of the second Austin Country Club location on Riverside Drive and the present-day Davenport Ranch layout.

Unfortunately, White never got to see the finished product. He died of cancer last fall.

Matthews

Continued from page 52

tory of changes to the course, beginning with the original plan. Using early engineering drawings and a series of aerial photographs from different eras, it was determined that the layout and greens were unchanged since the inception. However, as with most courses of this era, bunker shapes, sizes and locations had been modified or changed with time

The construction of the bunker project was completed in late fall of 1999 by TurfDrain, Inc. of Guelph, Canada. Overseeing the construction were project architect Howard Nauboris and superintendent Andrew Socie.

Grosse Ile Golf & Country Club's second phase construction will include drainage of six greens, fairways and roughs and a state of the art irrigation system. Work will be completed this year.

March 2000 53



Sapochak

Continued from page 43

jumped at it. I felt it was a chance that not a lot of people get in a lifetime. Plus, the possibility that it could turn into other design jobs, which I would love to do.

"Having worked for the Dyes and accumulated design and construction experience," he added, "there was never a doubt that I could build a great course on such a small piece of property and make it safe to play."

Winyah Bay Golf Club was an existing nine-hole course set on a portion of 85 acres along the picturesque Winyah Bay when owner George Marlowe approached P.B. Dye about redesigning it and adding nine holes.

Dye directed him to Sapochak, who set out to make his vision a reality on the property which possessed Southern magnolias, live oaks, towering cypress trees and mature dogwoods.

With limited acreage and resources, Sapochak knew a thoughtful design was needed. The first order of business was to lay out the course using as much of the original nine-hole layout as possible without making it obvious where the old course ended and his work began. He settled on

using four existing holes and six existing green sites.

Because the existing nine was predominately flat, Sapochak gutted out areas in the fairways to add roll and generate material to be used in other areas. He rerouted several holes and added auxiliary tees to gain length and add difficulty. All the bunkers were renovated, enlarged with smooth sweeping edges so none

had to be hand-raked. The traps were also ringed with emerald zoysiagrass to decrease the frequency of edging.

Sapochak knew the front nine only offered a hint of the spectacular vistas of Winyah Bay that the new back nine would possess. He set out to design nine holes that would unfold like the chapters of a great novel. Each one gets closer and closer to the climax that would be the unobstructed view of the bay.

The back nine meanders around and through wetlands on its way to the marsh front. The par-5 14th hole gives the first unobstructed view of the bay from a green surrounded by 200-year-old live oaks. The final hole is a tight par-4, bordered on the right by the bay and on the left by wetlands.

The modest length of the 6,055-yard par-70 track can be misleading.

"My philosophy was to create a shot-maker's course," Sapochak said. "People who hit good shots, not super-long drives, would do well. Someone who hits it long could post a score of 63 or 78, depending on how straight they hit the ball.

"Also, I wanted it to be fun to play. I wanted women and seniors to have as few forced carries as possible and the ones they did have to be short. I wanted every golfer to have the chance to run the ball up on the green from out of trouble, not to make it easy but to make it inviting for the player to go for the shot because they see an opening, not trouble."

The former superintendent aimed for versatility, wanting to accommodate "different looks around the greens, such as a manicured Pinehurst look or the heavy-roughed look of Firestone. Off the tee, golfers should be able to hit a draw or a cut on 14 or 15 of the holes."

Now, as general manager of Winyah Bay, Sapochak said: "It is a great feeling to have people come into the clubhouse and hear their comments about the course. Everyone seems to really like it, but the best is when men's groups come to play and, because of the length, they jump back on the blue tees although they're white tee players. It beats them to death. They come into the clubhouse and say, 'That's the longest 6,055-yard course I've ever played.' And I say, 'What do you think of it? Is it too tough?'

"I always get the same answer:
'No, you just have to hit good, solid, straight, smart shots.'"

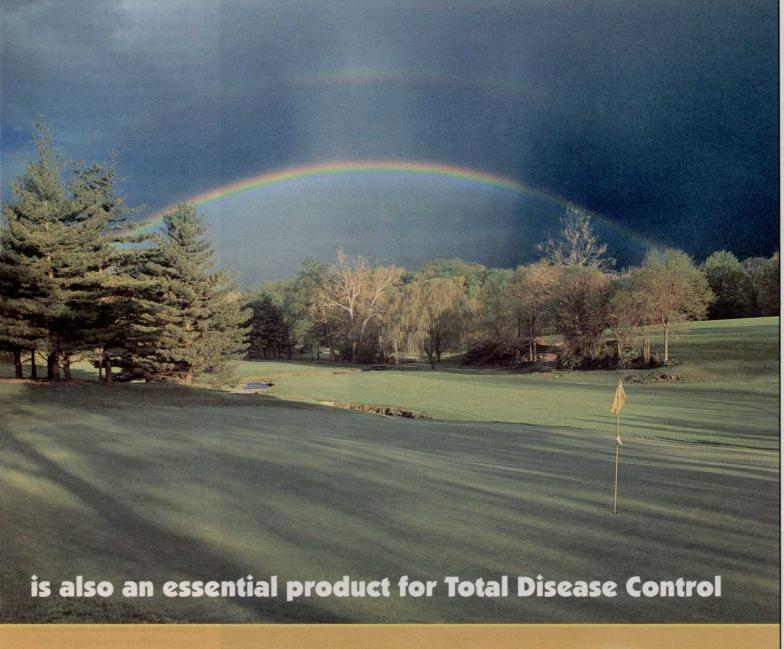
Nevertheless, the course remains a work in progress as Sapochak plans changes that would push the distance to 6,300 yards. All construction costs were kept very low, he said, and the course is maintained for less than \$350,000 annually.

O annually.

GOLF COURSE NEWS



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BRIEFS



TROON HANDS OUT AWARDS

TUCSON, Ariz. -- Troon Golf handed out several internal awards during its recent Troon Golf Management Conference 2000 here. Talking Stick Golf Club in Scottsdale was named Golf Facility of the Year; Kierland Golf Club in Scottsdale, Newcomer of the Year; Hal Akins of Legacy Golf Club in Bradenton, Fla., Superintendent of the Year; Laura Scrivner of Sheraton Tamarron Resort in Durango, Colo., Golf Facility Manager of the Year; and Westin Mission Hills Resort and Golf Club in Rancho Mirage, Calif., Most Improved Facility of the Year.

SERVISCAPE ADDS MICH. COURSE

JACKSON, Mich. - Lakeland Hills Golf Course has hired ServiScape Inc.



to manage its 18hole course here. Lakeland Hills was founded in 1968 and has been managed by the Gibson family since then, according

General Manager Maggie Gibson.

CLUBLINK CFO RESIGNS

KING CITY, Ontario, Canada -ClubLink Corp.'s Kim Robinson, the Canadian course management firm's senior vice president and chief financial officer, has given notice of his intention to resign his position to pursue opportunities with technology companies. He will remain at ClubLink through March 31 to ensure a smooth transition, and to complete the finalization of the company's 1999 year-end audited financial statements. Robinson has been with ClubLink since 1995.

..... IGM ADDS FLA. LAYOUT

LAKELAND, Fla. - International Golf Maintenance, Inc. (IGM) has signed a maintenance agreement with Highland Club at Highland Lakes, an exclusive golf course retirement community in Palm Harbor, Fla. The agreement gives IGM responsibility for maintenance of the golf course and for supervision of the facility's irrigation system for its common grounds. The 27-hole course at Highland Lakes was designed by Lloyd Clifton and constructed in 1980. Members have the option of playing the three, nine-hole executive courses in 18-hole combinations of their choosing.

ClubCorp, Weiskopf team up in Mexico

PUERTO VALLARTA, Mexico -ClubCorp has contracted with Tom Weiskopf to design a second course at La Vista Vallarta, a public-access property here.

The first course at La Vista Vallarta was designed by Jack Nicklaus. Construction of the Nicklaus layout is underway and should be completed by the end of the year.

The Nicklaus course is being built on rolling terrain along the property's highest elevation. The Weiskopf course will be built in the more rugged, dense jungle portion of the property, providing a marked contrast to the Nicklaus course.

Weiskopf, a professional golfer and

course designer, has designed 35 courses, including the Troon North and Pinnacle courses in Scottsdale, Arizona, USA; Zimbali Country Club near Durban, South Africa; and Loch Lomond in Luss, Scotland.



"The site is one of the most dramatic inland properties I've seen anywhere in the world," Weiskopf said.

Weiskopf course construction is underway and expected to open by April 2001.

ClubCorp's Latin American Group purchased the land, which spans more than 700 acres in the foothills overlooking Puerto Vallarta. In addition to the two courses, La Vista Vallarta is expected to include private real-estate and hotel uses.

Plans for La Vista Vallarta began more than two years ago. The deal represents the first time federal land has been sold to a foreign company in this part of Mexico, according to a ClubCorp statement.

ClubCorp also operates a second Puerto Vallarta property — Club de Golf Marina Vallarta, which features an 18-hole, Joe Finger-designed course.

Golden Bear adds Calif. track to portfolio

NORTH PALM BEACH, Fla. — Golden Bear Club Services has signed a multi-year management contract with Pasadera Country Club, a Jack Nicklaus Signature course located in Monterey, Calif.

Under the terms of the contract, Golden Bear Club Services will manage the entire club, which will include the Nicklaus course, practice facility, 37,000-square-foot clubhouse, and a swim and tennis complex. The 6,800-yard course has elevation changes of up to 350 feet and views of Monterey Bay.

The Robert Lamb Hart-designed clubhouse features an Old Monterey style architecture with a grand courtvard. The clubhouse will include multiple food and beverage outlets, men's and ladies' locker rooms, fitness center and spa, lap pool and golf shop. The swim and tennis complex will include multiple pools and five tennis courts.

Pasadera Country Club is the centerpiece of the Pasadera master-planned community, which will include 253 homes. The non-equity private club's golf course is scheduled to open this spring. The clubhouse and swim and tennis complex are scheduled to open this fall. The Jack Nicklaus grand opening event is scheduled for June 11.

Casper to improve and operate Maryland facility

VIENNA, Va. - Billy Casper Golf Management (BCGM) has been selected to provide turnkey management services to Deer Run Golf Club in Berlin, Md., located 11 miles outside the golf and beachfront community of Ocean City, Md.

BCGM's initial project at Deer Run is to undertake an estimated \$1-million capital enhancements program. Components of the program include completing the conversion of the original executive course into an 18-hole championship layout. The clubhouse will be transformed into a sit-down, indoor/outdoor cafe, and the golf shop will be upgraded in presentation and merchandise selection. BCGM anticipates the majority of the renovations to be completed by April 1, the start of the peak golf season on Maryland's Eastern Shore.

BCGM also announced that the new look at the facility, which opened in 1997, also prompted a name change to Deer Run Golf Club from the former Greenfields Golf Course.



DEL WEBB LIGHTS IT UP

The 5th hole on the new San Gorgonio nine at Del Webb's Sun City Palm Desert (Calif.) facility. The layout is a continuation of the original 18 holes, which were also designed by Billy Casper. The new holes feature six lakes and numerous date palms.

CMAA works with Audubon to improve club environment

ATLANTA - The Club Managers Association of America (CMAA) is partnering with Audubon International and the United States Golf Association (USGA) to offer member facilities a Full Facility Environmental Audit.

The program is built on ground work laid by the Golf Course Superintendents Association of America and USGA that ensures golf courses are managed in an environmentally responsible manner, CMAA Executive Vice President and Chief Executive Officer (CEO) Jim Singerling remarked during the recent CMAA Annual World Conference on Club Management here.

The CMAA audit, developed in cooperation with Audubon International, will address issues throughout the club facility including dining facilities, parking lots, roads, repair and maintenance facilities.

"This checklist gives you the equipment and guidance to perform an internal self assessment based on standard, widely accepted environmental management practices to measure overall environmental performance," Singerling said.

The audit will yield an overall facility score that will highlight strengths as well as opportunities to improve environmental management of the club.

Also during the conference:

· Singerling outlined a three-year Strategic Plan developed by CMAA and Moore & Associates based on research and interviews with association members. The first year agenda focuses on education - beginning with an effort to educate club boards about CMAA - and improving member education in Chief Financial Officer skills, leadership, regulatory strategies, board management, time management, supervisory skills for the non-CEO manager, and human resource management. The second year of the Strategic Plan calls for expansion of chapter education programs and

Continued on page 56

GOLF COURSE NEWS



NGF, VGM offer mutual membership discounts

JUPITER, Fla.— The National Golf Foundation (NGF) and VGM Golf have entered an agreement that will provide added value to their respective members. The 4,000 golf facility members of the NGF can join VGM Golf at a reduced rate while likewise, the 1,800 members of VGM Golf can join the NGF at a reduced rate.

Full benefits of membership in each organization will be provided under this agreement.

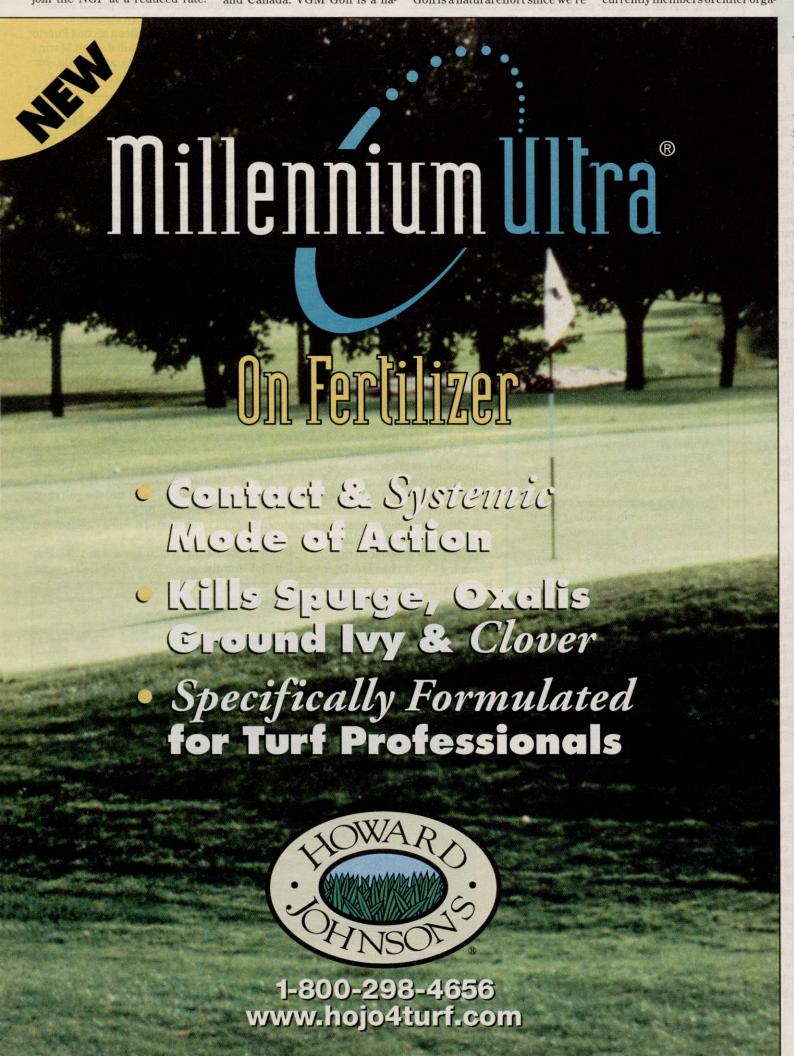
The National Golf Foundation is an industry trade organization that provides golf business research, information and consulting services to golf facilities and businesses in the United States and Canada. VGM Golf is a na-

tional buying alliance for golf facilities in the United States and Canada, providing discounts on more than 160 golf products and services used in every aspect of operating a golf facility.

Said Barry Frank, vice president of membership services for the NGF, "Partnering with VGM Golf is a natural effort since we're both trying to provide valuable products and services to our golf facility members — but in very different, yet non-competitive, complementary ways."

NGF and VGM Golf members who want to take advantage of the new alliance will be able to make one combined membership payment each year. Golf course owners and operators who are not currently members of either organization can join both at the same time and receive the same program advantages.

Additional information regarding the program can be obtained by contacting the NGF at 888-NGF-2500 or VGM Golf at 800-363-5480. Further information on the specific products and services provided by each organization can also be found at www.ngf.org and www.vgmgolfinc.com.



Yamaha helps NGCOA chapters

FORT LAUDERDALE, Fla. — Yamaha Golf Cars presented \$26,000 in incentive awards to chapters of the National Golf Course Owners Association (NGCOA) at the NGCOA annual meeting here.

The Yamaha Chapter Incentive Awards Program was created to reward NGCOA chapters that surpass goals for the sale or lease of Yamaha Golf Cars. Chapters that surpass their goal receive \$1,500 checks. The chapter with the most sales, and the chapter with the highest percentage of improvement, each receive checks for \$5,000.

The total volume award winner was Texas, whose members purchased a total of 1,273 Yamaha golf cars. The most improved chapter was Maryland, which went from zero to 155 golf cars sold. Chapters that met their sales goals for 1999 were California, Georgia, Maryland, New England, New York, Ohio, South Carolina, Sandhills (Pinehurst area), Texas and Wisconsin. Special awards of \$500 went to New York and California.

Over 13,000 Yamaha golf cars were sold or leased in 1999 through the NGCOA's Smart Buy Network, shattering projections and beating 1998's total by nearly 28 percent. In fact, the sales total has increased each of the past four years— 25 percent in 1996, 42 percent in 1997, 22 percent in 1998 and 27.5 percent in 1999.

CMAA

Continued from page 55

raising the bar on the standards for the Certified Club Manager program. The final year of the three-year plan will explore additional ways to improve the professional image of club managers.

• CMAA members elected officers and directors during the Atlanta gathering. Warren Arseneaux of the Poinsett Club in Greenville, S.C., was elected president; Sandra Frappier of the Fort Wayne (Ind.) Country Club was elected vice president; and Peter Tunsley of The Stanwich (Conn.) Club was elected secretary-treasurer. The results of the director elections were unavailable at press time.



NGCOA president

Continued from page 1

Golfweek magazine in 1974. Stine was never involved with the magazine other than serving on the board of directors. He purchased his first course (Sunair) in Haines City, Fla., in 1980, launched a golf course real-estate brokerage company (USA Golf) in 1984, and started IGM (a course maintenance firm) in the early 1990s.

IGM merged with Meadowbrook Golf Group in 1998. Meadowbrook, the parent company, now owns or operates roughly 100 courses nationwide.

"Ten years ago," Stine said, "we were talking about whether we should even let multi-course operators in [to the NGCOA] since we were supposedly an organization representing single-course operators. But we realized that multi-course operators had many of the same problems we did. And they brought strength to our organization in dealing with industry people.

"I know most everybody in NGCOA, worked with them for many years and come from a single-owner background. The goal of many people in the organization is to have multiple locations. [NGCOA Executive Director] Mike Hughes runs the organization and nothing is going to change."

During Stine's eight years on the NGCOA board of directors, the association's membership has risen from 1,200 to its current level of 4,000 members.

"I hope to continue the growth we've had in the past few years," the new president said. "The things we really want to concentrate on are player development and retention through the Get Linked marketing program, and to add purchasing benefits for everyone from multicourse to the nine-hole operators through our Smart Buy group purchasing program."

Get Linked is an extensive marketing campaign NGCOA makes available to members. Among the materials are professionally produced print and television ads that can be customized to a local market.

The Smart Buy program allows members to gain substantial discounts on a variety of golf course products through group-purchasing efforts coordinated by NGCOA.

Stine said the biggest change he has seen over the past decade is the influence NGCOA wields in conjunction with its allied associations — the Golf Course Superintendents Association of America (GCSAA), Professional Golfers Association, United States Golf Association, etc.

"The increased size of the organization has given us funding to hire more professionals to work on problems that all golf course owners have, rather than attacking these problems individually," Stine explained.

The NGCOA, Stine said, sees the superintendent playing more of a management role and working in conjunction with golf course property managers/owners in the planning process.

"The NGCOA has a lot of respect for the GCSAA and hopes to work more closely with it," Stine said. "Eight years ago, we had little communication with the allied associations. Now we're meet'Ten years ago we were talking about whether we should even let multi-course operators in [to the NGCOA] since we were supposedly an organization representing single-course operators.'

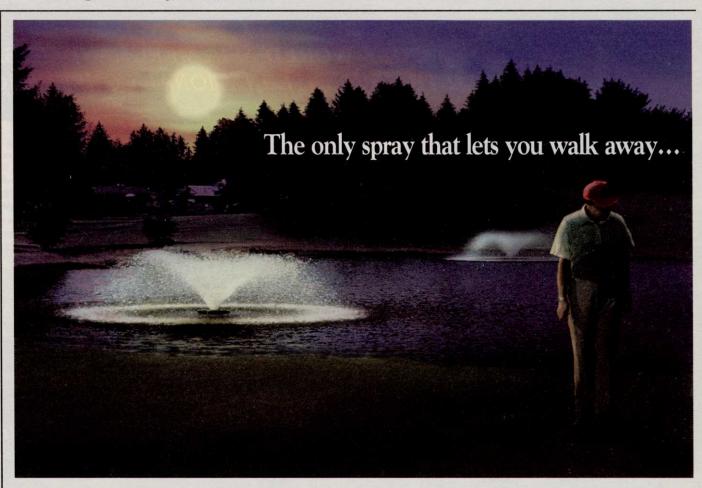
- New NGCOA President Bill Stine

ing with the GCSAA, having their members coming in to talk to us and giving educational seminars. We see GCSAA as an educational vehicle for our members and the superintendent being more of a financial manager of his department,

rather than just being concerned about the agronomic end of things.

"Today's superintendents are more educated and more entrepreneurial than they were 20 years ago. We see some superintendents who want to become managers and we [Meadowbrook] have moved them from superintendent to general manager positions... [Superintendents] play a much larger financial role in our business statement than the PGA pro

In other news, NGCOA members elected their board of directors during the Florida meeting. In addition to Stine, others elected to the board include Walt Lankau as vice president, Meriam Leeke as treasurer, and Mark Seabrook as secretary. Newly elected board members are Charlie Birney and Charlie Floyd.



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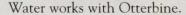
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GOLF COURSE NEWS March 2000 57

Mr. Rob Glucksman, Managing
Director, Witgang Far East: "Great show!
We enjoyed meeting our current and
potential customers at the 5th International
Hong Kong & China Golf Exhibition. We'll
be back again." - HONG KONG



"THE 6TH GOLF WORLD ASIA MERCHANDISE SHOW" &
"CHINA GILTS 2000 INTERNATIONAL CONFERENCE & EXPO"

Mr. Marshall E.
Whitehead II, Executive
Director, Marketing - Asia
Pacific, Interval International: "Just
a short note to say what a pleasure it
was participating once again in the Golf
Exhibition this week. Let me express my
sincere thanks and appreciation and to
congratulate you for an excellent job! Your
show is a first-class quality exhibition with
a personal touch that's added. I am
confident that each year will blossom
into a larger, if not more
sophisticated event than the
previous year."

Mr. Steven D. Plumer,
President, Forefront
Gott/Steven D. Plumer Design:
Gott/Steven D. Plumer Design:
Thank you again for having my company
Thank you again for having my company
Thank you again for having my company
Thank you again for having my long Kong
Thank you and we will exhibit again next year.
The hotel accommodation was spectacular and leacommodation was spectacular the hotel accommodation was spectacular well the hotel accommodation was year year.
The show was very for your and went as I expected. Thank you for your and went as I expected. Thank you for your and went as I expected. Thank you for your and went as I expected. Thank you for your and went as I expected. Thank you for your and went as I expected. Thank you for your and you goon in China."

December 1st - 3rd 2000

Guangzhou International Exhibition & Conference Centre, China

Mr. Howard Swan,

President. The British

President Golf Course

Institute of Golf Course

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BRIEFS



ZIRKLE HEADS UP RAIN BIRD MARKETING

AZUSA, Calif. — Matthew A. Zirkle has been named marketing manager

for the golf division of Rain Bird Sales, Inc. Zirkle will oversee the marketing and communications functions for the division. Prior to being named marketing manager,



Matthew Zirkl

Zirkle served as new business development manager in Rain Bird Golf.

RIVERDALE NAMES SCHUTZMAN, PHIPPS

GLENWOOD, Ill. — Riverdale Chemical Co. has named Lendel Schutzman as regional sales manager. His responsibilities will include promoting product sales in the turf, vegetation management, forestry and aquatic industries. Mark Phipps has been named Northeast regional sales manager. In his new position, Phipps will be responsible for sales and technical support for Riverdale distributors located in the Northeast and the development of new distributors within his territory.

PEROTTI JOINS JACKLIN SEED

POST FALLS, Idaho — Larry Perotti has joined Jacklin Seed/Simplot Turf & Horticulture as technical service manager. Perotti is responsible for answering questions from Jacklin Seed customers on such subjects as grass species and variety selection, and growth characteristics. Additionally, he provides backup technical and sales services for Jacklin Golf's three outside sales representatives.

NELSON TO LEAD SCOTTS TURF BREEDING

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MARYSVILLE, Ohio - The Scotts Co. has hired Dr. Eric K. Nelson to lead its turfgrass breeding efforts at the company's Oregon Field Station. As senior scientist and turfgrass breeder, Nelson will join Scotts' variety development group in its efforts to produce herbicide-resistant grasses and will conduct traditional plant breeding, drawing upon biotech-based gene sources. He will interact with scientists within Scotts and at universities across the country. Nelson most recently served as senior technical agronomist for JacklinGolf, where he provided agronomic assistance and technical communications for golf course architects, builders and superinten-

J.R. Simplot set to expand deal, inject \$20 million into Eco Soil

By ANDREW OVERBECK

RANCHO BERNADO, Calif. — Building on November's marketing and distribution alliance, Eco Soil Systems, Inc. and J.R. Simplot Co. have strengthened their relationship by entering into a multi-

faceted letter of intent. Under the agreement, Simplot would acquire \$20 million of a new series of Eco Soil preferred stock. Simplot would also agree to commence field trials of Eco Soil's proprietary products in agricultural markets. The deal also grants Simplot the option of acquiring an interest in Eco Soil's

Turf Partners subsidiary during the spring of 2001, depending on Turf Partners 2000 financial performance.

"Simplot is investing in the parent company," said Eco Soil President and Chief Executive Officer Bill Adams. "But they retain the option of converting that investment into Turf Partners or putting some additional money into the subsidiary to buy some level of shares. They have to make that decision in the next 12 months."

"We are interested in the BioJect and FreshPack products," said Hiromi Yanagisawa, senior vice president of marketing for J.R. Simplot. "But we need to look at it financially to see if it makes sense."

While a 12-month valuation period is unusual, Adams remains unfazed.

"Simplot is not sure whether they want to be fully invested in a distribution company," he said. "At this stage of the game it doesn't matter to us. We wanted to make sure they made a commitment to us since we had made a distribution commit-

> ment to them, and in addition, we have some technology that we wanted to shove into their agricultural markets and this was an easy way to do it."

> Building a relationship with a vendor also makes a lot of sense to Adams.

"The working capital helps, but the bottom line is that we

wanted to get closer to our major vendors because we have always presented ourselves as a value-added sales force," said Adams. "In the final analysis, it is all about positioning someone's product over someone else's. You have to have favorites and Simplot is one of them."

Concurrently, Eco Soil will be working to cut costs after losing \$11 million in the fourth quarter due to restructuring costs and operating losses in Mexico. While Eco Soil continues to expand its revenues — \$22 million in the fourth quarter — it faced overhead expenses of \$17 million in 1999. By streamlining operations and using the proceeds of the Simplot investment to retire debts, Eco Soil expects to trim 2001 costs to \$9 million.

"When you consolidate all the busi-Continued on page 62

AgriBioTech files Chapter 11; asset sale to follow

HENDERSON, Nev. — Citing low seed prices, high expenses and slow collections, AgriBioTech (ABT) has filed for Chapter 11 bankruptcy protection. The full-service turfgrass

seed company has been struggling to integrate the 34 companies that it has bought over the last four years.



According to

ABT's second-quarter report released Feb. 22, "The company has incurred significant operating and net losses since inception and has been unable to generate sufficient cash flow from operating activities to meet projected debt service and other obligations as they become due."

ABT reported a net loss of \$19.5 million for the second quarter ended Dec. 31, 1999, and posted losses of \$49.8 million in fiscal year 1999. The company's second-quarter sales were \$52 million compared to \$75.9 million in the same period last year, a decrease of 31.6 percent. As of Feb. 11, the company had outstanding debts of \$68.9 million. The NASDAQ National Mar-

Continued on page 66

Redexim to distribute Carraro tractors

By ANDREW OVERBECK

PITTSTON, Pa. — Redexim Charterhouse has entered into an exclusive marketing and distribution pact with Padova, Italy-based tractor manufacturer Antonio Carraro. Redexim Charterhouse has had a distribution agreement in Europe with Carraro since August 1999.

"The success of the European joint venture led us to roll out U.S. operations," said Philip Threadgold, executive vice president of Redexim Charterhouse. "Carraro was looking to get into the U.S. market and we offered the distribution."

The tractors will be distributed in

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Company

Astrazeneca

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Nat'l Golf Prop.

Lesco Inc.

Toro Co.

Textron Inc.

Dow Chemical Co. DOW

Family Golf Centers FGCI

Golf Trust of Amer. GTA



Cararro's TTR 440 in action

-18.90 22.83 31-48.94

18.1

4.04

12.38

38.14 32-47.5

18.16 90-141.5

10.01 35-73.82

14.17 14.5-25.75

11.76 12.25-19.5

the United States through Redexim Charterhouse's network of 47 distributors. Replacement parts will be stocked at the company's new warehouse facility in Pittston.

Range

0.72-10.125

18.38-27.75

28.5-39.5

Continued on page 66

Proj.5-yr

Earn. Growth

10.30%

9.20%

8 60%

8.80%

25%

12%

15%

N/A

12.5%

Golfsat plans to be one-stop online source for supers

By ANDREW OVERBECK

NEW ORLEANS — Looking to fill the Internet gap that exists in the golf course maintenance industry, Golfsat has launched its website (www.golfsat.com) and industry portal to golf course superintendents.

Golfsat Chief Executive Officer Mike Scott equates the site's unveiling to the Oklahoma land rush.

"Everyone is running to the Internet and is not sure where they are going," said Scott.



ike Scott

"The Internet has embraced this industry. There are a lot of manufacturer and distributor websites. But by and large there has not been a formation of e-commerce or a virtual community for superintendents. That is what we are creating at Golfsat."

Scott aims to get superintendents online, create a high-speed industry network and design and develop industry-specific software and content.

CONTENT

Registered Golfsat users can use the Golfsat search engine to locate information on turfgrasses and cultivars, diseases and insects, biological and chemical

Continued on page 68

*DATA PROVIDED BY VALUE TREND LINKS, LINKS FUND UP 11.48% IN '00, WWW.GOLFMUTUALFUND.COM

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GOLF COURSE NEWS 59

Golf Course News STOCK REPORT (2/24)*

Price 1/1/00 1/14/00

-20.36

-9.73

-20.00

6.27

-34.47

-5.88

5.72

-11.88

-20.61

106.375 -19.79

33.25

38.25

18

36.08

20.88

32.88

60.88

16

Symbol Stock %Change %Change P/E 52-week

-20.31

-23.68

-26.47

6.64

-32 52

-2.32

-9.61

-11.74



PTI unveils plans for Pursell Farms training facility

By ANDREW OVERBECK

SYLACAUGA, Ala. — Aiming to build better relationships with superintendents and end users, Pursell Technologies, Inc. (PTI) is building a new corporate headquarters, guest lodge, research and demonstration sites, and an 18-hole golf course and First Tee facility at Pursell Farms here.

"We wanted to do something to break us out of the pack, something to showcase and sell ourselves," said David Pursell, chief executive officer of PTI. "We want to tell the Pursell story, about the family-owned company and about the technology."

Pursell intends to bring in selected superintendents eight at a time to go through an all-expenses-paid two-day training process. Superintendents will stay on-site at a guest lodge on the property and attend a three-hour educational session at the newly opened PTI-Max theater, a space-age facility that looks out over the company's Polyon factory.

At the center of the training process is FarmLinks, an 18-hole, Hurdzan/Fry-designed course. Here, superintendents will be able to see Polyon products in action.

"The course gives us the ability to show them how the products work," said Pursell. "We can tell them



The master plan for 2,700-acre Pursell Farms.

when an application was made, how much was put down and do side-by-side comparisons with other products." Pursell envisions using golf cars fitted with GPS to guide superintendents through the course and provide application information.

While many fertilizer companies have built one or two golf holes or work with area courses to showcase products, Pursell thought it was important to build an entire course.

"We could have done what others have done and build a relationship with an area course, but we wanted to have full control over construction, course management and of the amount of play," said Pursell. "I do stuff up at Shoal Creek [Ala.] Golf Club and people are impressed. But how much of that is Shoal Creek and how much of that is my product?"

In addition to providing product information and training, the superintendent's visit to Pursell Farms will include a healthy dose of Southern hospitality. Visitors will have a plethora of recreational options at their disposal. Along with the golf course, there are several bass-fishing ponds, an 800-acre duck and deer hunting preserve and four-wheeling and hiking trails.

"This way we can get to know the customers and talk with them," said Pursell. "Once they are comfortable, they will let you know what they think about your products. This will help us to be a better company and be more responsive to end users needs."

Director of Professional Sales Dave Heegard is looking forward to using Pursell Farms as a sales tool. "This is sales made easy," said Heegard. "This lets superintendents know about the technology and that they are doing business with real people, not a distributor."

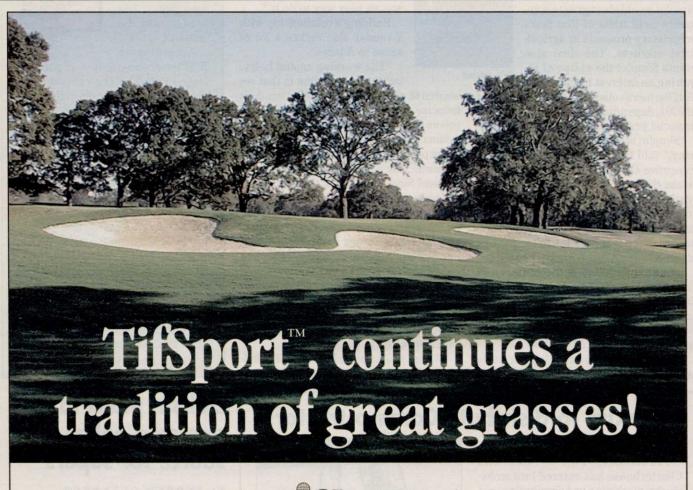
While he wouldn't disclose the total cost of the project, Pursell acknowledges that it is a risky concept.

"People may think I'm off my rocker. It would have been easy to take my money and stick it in my back pocket and continue bringing people out to the little house on the property and to find another spot in town for the headquarters," said Pursell. "But I wanted to follow this dream and invest in the future of this company."

Pursell believes that the company has the product to back up the risk that it is taking.

"We have new products in the line-up," he said. "We are waiting to clear regulatory hurdles on a coated pesticide technology that offers improved efficacy, greater retention and lengthened control."

Pursell anticipates that the corporate offices and guest lodge will be completed this fall and that FarmLinks will be open for play by mid-2002.



TifSport was developed by the USDA/ ARS and the University of Georgia, the same turf genetics group which also developed 419 Tifway, Tifgreen and Tifdwarf. These warm season grasses are highly regarded names on golf courses around the world.

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ing sports turf conditions: Intense cart and foot traffic, lower and more frequent mowings, and the ever-present threat of pest damage.

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- TifSport Offers Genetic Purity
- TifSport is protected by a USDA patent.
- Strong and Flexible Under Pressure

TifSport is available only through Tift 94 Growers Association, Inc.



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Aquatrols creates Robert A. Moore Fund

NEW ORLEANS — Aquatrols has established the Aquatrols Robert A. Moore Endowment Fund within the Golf Course Superintendents Association of America's Foundation. The fund will support research for growing golf course turf in environmentally sound ways.

Aquatrols established the fund with money obtained from the corporation and various family members. Aquatrols has made a commitment to maintain the contribution level of this fund through proceeds from the sales of Aquatrols turf-management products.

More than 45 years ago, the founder of Aquatrols, Robert Moore, recognized the value of improving water penetration into the soil and reducing the unnecessary waste of water. He developed and patented the first soil wetting agent technology and founded Aquatrols.

Since applied research

Continued on page 63

Tyler establishes Purdue scholarship

ELWOOD, Ill.— Bruce Jasurda, chief operating officer of Tyler Enterprises, Inc. has announced the formation of the Mentor Scholarship, a \$5,000 annual award to qualified students enrolled in Purdue University's turfgrass science option in the Department of Agronomy.

"This scholarship recognizes and honors those people in our industry who have made a positive impact on the lives of others by sharing their time and knowledge. It is also meant to encourage each scholarship recipient to become a mentor in their own right, as their career in turfgrass management evolves," said Jasurda.

Nick Strehle, a senior enrolled in the Purdue University turfgrass science option in the Department of Agronomy, was awarded the \$5,000 Mentor Scholarship at the Midwest Regional Turf Foundation luncheon in Indianapolis.

Strehle was awarded the schol-Continued on page 63 SUPPLIER BUSINESS

BLOOMINGTON, Minn — The Toro Co. has provided a \$150,000 leadership grant through the National Future Farmers of America (FFA) Foundation for the development of a turf studies program in high schools around the nation designed to address growing labor shortages in turf, landscape and golf course management. The program will be developed and conducted by the National Coun-

Toro establishes grant for high school turf studies program

cil for Agricultural Educators.

"Our customers tell us that one of the biggest operational problems today is finding trained professionals to handle the growth in the landscape and turf maintenance industry," said Kendrick Melrose, chairman and chief executive officer of Toro.

"The FFA program will help provide an excellent training academy to develop professional turf managers."

As a major sponsor of the First Tee program, Toro has created a link between the First Tee and the FFA to designate the courses as training labs for FFA turf management studies. Utilizing its network of distributors and dealers in the landscape and maintenance business, Toro will arrange career fairs, guest speeches and demonstrations for agricultural education students and FFA chapters.

"Through our network of customer relationships and industry partnerships, we can help put students in a position to succeed," said Melrose.



Eco Soil ready with e-commerce strategy

By ANDREW OVERBECK

RANCHO BERNADO, Calif. - In order to increase customer service to superintendents, streamline distribution and provide more visibility to its proprietary products, Eco Soil Systems, Inc. has launched a business-to-business ecommerce initiative. The company will launch the e-commerce strategy in several phases, beginning first with its Turf Partners subsidiary.

The system will give superintendents

access to products sold through the Turf Partners network, including many turf products offered by the J.R. Simplot Co. and Eco Soil's BioJect and FreshPack microbial products. Turf Partners has 70 salespeople/agronomists and distributes maintenance and proprietary products to 7,500 golf courses nationwide.

"The system is designed to be an integrated tool for superintendents," said Eco Soil Chairman and Chief Executive Officer William Adams. "Superintendents have a project philosophy. They have to schedule people and products and keep up with a big budget.

Eco Soil is designing the interactive program around this project mentality. Turf Partners salespeople will work with superintendents to develop an agronomic plan that will become the superintendent's daily schedule.

'When he comes to work, he turns that schedule on, and as a vendor we are connected into his plan," said Adams.

Through the integrated on-line, orderentry system, salespeople will continually help the superintendent build their program by showing them how to use products more efficiently and environmentally, ensuring that they have picked



the correct products for the project and supplying them with the products.

'Superintendents will enhance their credibility by having a partner who is capable of helping them build and execute a plan that makes them smarter, faster, cheaper and more efficient," said Adams. "We become a better vendor because we anticipate needs faster and sooner. Our whole purpose in this business is to preserve and enhance the job of the superintendent. We want them to keep their jobs and get a big raise."

Adams expects the salesperson/superintendent relationship to strengthen as a result of the new program.

"With the order-entry system, there are scheduled delivery days, so instead of coming around and asking for orders, salespeople can go out and see how projects are going. They can really be an asset now instead of someone who bugs you for an order all the time," he said.

Eco Soil introduced the system to its sales force in January. The company is now working to bring everyone through the program so they can access and build the systems themselves.

"Our sales staff is wildly enthused. A year ago they were afraid that we were going to kick them out and go direct," said Adams. "But it is just the opposite. We are trying to allow the sales guy to be an agronomic consultant."

Adams said Turf Partners will introduce the program one customer at a time and expects to have the system operational by this summer.

Eco Soil/Simplot

Continued from page 59

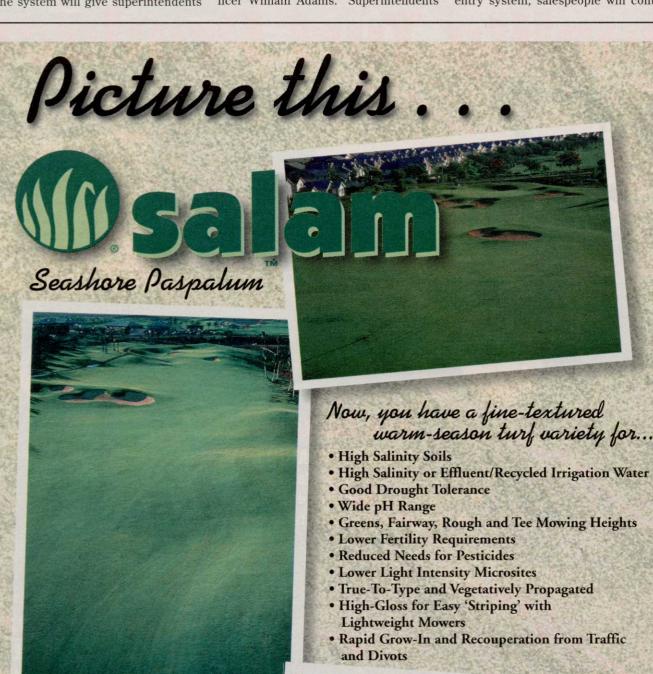
nesses that we bought you end up, instead of realizing all kinds of benefits, creating additional costs because in some cases you are building double systems," said Adams. "Because of the 12-month evaluation period, Simplot forces us to eliminate a lot of that overlap.

In the next year, Eco Soil could wind up not owning all of Turf Partners, but Adams said the company is still committed to the turf business

'We have a proprietary product line to sell in the turf business and we bought the distribution channel and started building that because we want to control our destiny," he said. "Hopefully, Simplot's share of ownership in Turf Partners will allow us to grow that market together."

Even during the evaluation period, Adams will continue to work at making Turf Partners a national player.

There are a couple of big markets that we have zero presence in. We have very little in the Southeast, Texas, Northern California, Nevada and the Middle Atlantic states," said Adams. "So we are going to try and pick up people where we can. And if there are some businesses that are there that are opportunistic, we could consider consolidating them this year or the next."



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By A. OVERBECK

SYLACAUGA, Ala. — Pursell Technologies Inc. (PTI) has entered into a long-term agreement with J.R. Simplot Co. to pursue the marketing of POLYON fertilizers and other PTI products to the professional turfgrass markets in the Northeastern, Mid-Western, and Southwestern states. Simplot and PTI currently have a joint-venture

PTI, Simplot pursue Polyon marketing agreement

arrangement to market fertilizer products to the professional turf and horticulture markets in the Western United States as well as Pacific Rim countries.

The newly expanded business arrangement combines Pursell's state-of-the-art coating and research expertise with Simplot's manufacturing and marketing ca-

pabilities.

"Simplot has wholly owned distribution and manufacturing points, but they don't have any technology," said David Pursell, president and chief executive officer of PTI. "We have the technology, but no distribution, so it makes for a perfect fit. I couldn't draw it up on a dry-erase board

any better than that."

The agreement is another in a series of strategic moves that Simplot is making in order to position itself as a global leader in branded turfgrass fertilizers and seed.

"We are fully confident that Simplot has the right plan in place as well as the staying power, to become a dominant global leader," said Pursell. Doyle Jacklin, president of Simplot Turf and Horticulture, confirmed that this agreement will be in fact a significant factor enabling Simplot to achieve its strategic position. Simplot may also market future PTI technologies such as controlled-release pesticide products currently under development.

Aquatrols Fund

Continued from page 61

and development has been of key importance to Aquatrols, the company has established the research endowment fund as a way to give back to the industry and recognize the contributions made by Moore.

The purpose of the program is to support applied research for optimizing the growing environment for golf course turf, with specific goals for increasing the effectiveness of applied water, fertilizers and pesticides and thereby reducing the total requirements. The goal is to develop maintenance practices that result in beautiful golf courses with minimal impact on the environment and consumption of resources.

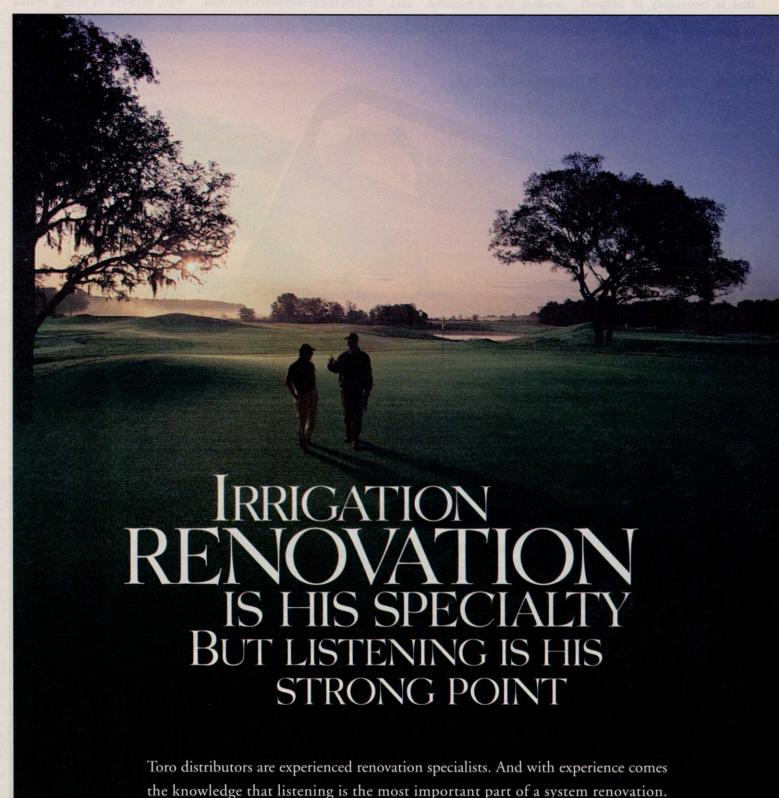
Any research proposal meeting the above purpose and the foundation's research submission and funding requirements is eligible for consideration as a grant recipient.

Tyler/Purdue

Continued from page 61

arship based upon his academic performance, his leadership in the student chapter of the GCSAA and his work experience in the industry. Strehle most recently worked as an intern with the golf course groundskeeping crew at the Wolf Run Golf Club in Zionsville, Ind. His previous two summers were spent as an intern at Miami Valley Golf Club in Dayton, Ohio, and as an assistant in the construction of the Kampen Golf Course at Purdue University.

The Mentor Scholarship is an annual award presented to students with high potential in the field of turfgrass management. The scholarship is intended to recognize the importance of those people who serve as trusted advisors during a person's lifetime and to encourage the recipients to become mentors as their career in the turf industry evolves.



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Andersons/ Scotts

Continued from page 1

and copyrights associated with the professional turf market. Scott's seed business is not a part of the transaction.

"With this acquisition, we have a national presence and we are going to build the infrastructure that is necessary to support that," said Richard Anderson, president of Andersons Processing Group.

Anderson declined to reveal specific figures, but said the combined company would have a strong market share in the higher-value N-P-K product lines of granular fertilizers and combination products.

"The compelling reason for us to do this is that much of Scotts product line is blended," said Anderson. "We bring regional production and distribution to the table, so there will be greater logistical efficiency. These combined strengths will increase our ability to respond to the market more quickly and bring a better line of fertilizers to the superintendent."

Citing low margins, production conflicts and distribution difficulties, Scotts has abandoned the professional turf business in favor of the lucrative commercial marketplace.

"The industry structure is such that [the professional business] is not financially viable," said Scott Todd, senior vice president for Scotts professional business group.

"There are an excess number of competitors, many of which are willing to compete on price. And you have a customer base, who, because of falling utilization on golf courses, have tighter budgets. Since Scotts products are at the high end of the quality spectrum, people say, 'Hey I'd like to use those products, but at the end of the day, I might have to use something that is a little lower quality.'"

Scotts professional products also come off the same production line as the consumer products, creating an internal competition for resources. Additionally, when Scotts changed to distribution last year, gaps in market coverage emerged that challenged the company's delivery efficiency.

"Any one of those three reasons has an impact, and when you line up all three of them together it is catastrophic," said Todd.

Andersons, however, remains confident in its market position.

"We now have a dominant position in the premium end of the spectrum. We are consolidating two product lines that cover the waterfront of products, brands and technologies that are needed for the golf and landscape market," said Anderson. "With this, in combination with our regional manufacturers, we will have the ability to compete more on price sensitive products that has been the case in the past."

The Scotts acquistion is an extension of Andersons' continuing growth strategy. Andersons currently has manufacturing facilities in Maumee, Bowling Green, and Pottstown, Pa., and Montgomery, Ala. While the company has worked to expand on the East Coast and in the Southeast in the past six years, it expects that this move will open up opportunities to expand westward.

"We have had a minimal presence on the West Coast and Scotts has had a much larger position out there, so we are looking to them to help guide us on things we need to do out west," said Doug Masters, national sales manager for Andersons.

More immediately, Andersons will be working with Scotts to sort out branding strategies.

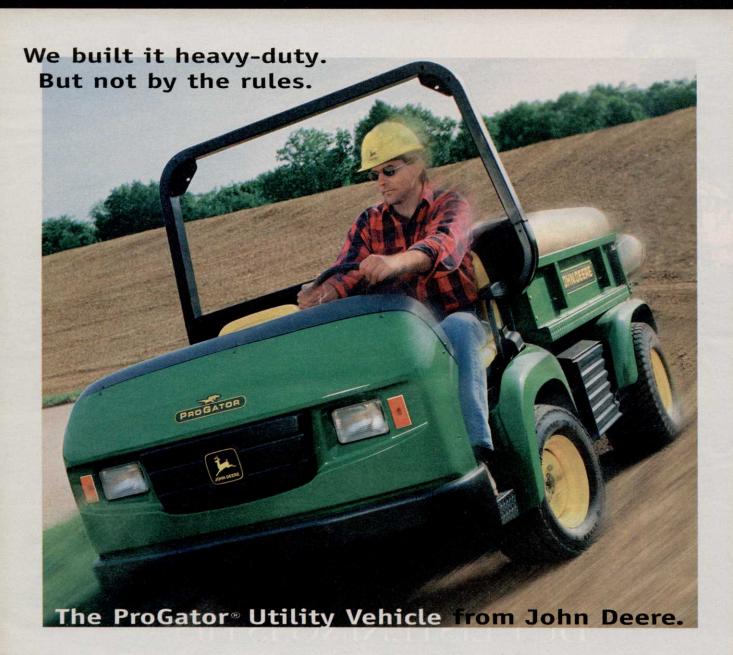
"We have the opportunity to offer a complete line of homogeneous and blending products," said Anderson. "We have a lot of work to do with the Scotts team and their marketing people to understand how to take that fundamental concept and create a comprehensive line."

Anderson will also work to integrate the two sales and distribution staffs.

"Golf is relationship-driven," he said. "The people are a valuable part of this transaction."

Sales and distribution will not change for the 2000 season.

The non-binding agreement must be approved by the boards of both companies and is expected to be completed by May 31.



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Nu-Gro Corp. to acquire Scotts Pro Turf in Canada

By ANDREW OVERBECK

BRANTFORD, Ontario — While Scotts is selling its U.S. professional turf business to Maumee, Ohio-based The Andersons Inc., fertilizer manufacturer The Nu-Gro Corp. has signed a letter of intent to acquire Scott's Canadian Professional Turf business

"We think we have a strong professional fertilizer line in Canada and Scotts has been a respected competitor for a while," said Greg Flanagan, chief financial officer of Nu-Gro. "Putting the two product lines together will be good for our business."

The task of integrating the two

product lines will not be nearly as involved as it will be for Andersons.

"The size of the Canadian market is about 10 percent of the size of the U.S. market, so it is a small part of the total deal," said Flanagan.

Nu-Gro, which has 250 employees and grossed \$130 mil-

lion Canadian in 1999 sales, will be taking on three Scotts salesmen and may build additional storage facilities, said Flanagan.

"This will add about 30 percent to our professional business," Flanagan said. "But we will be dealing with the same customers, so it will just mean adding a product line to the same distribution network that we've already got."

The Scotts acquisition will add an N-P-K line to Nu-Gro's product mix. "That will be a new addition," said Flanagan. "There may be some decisions that have to be made on products that overlap. We will talk to customers and see how things play out."

The boards of both companies must approve the acquisition, but Flanagan expects finalize the transaction in May.

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Consolidation hits fertilizer industry

By ANDREW OVERBECK

With The Andersons' acquisition of The Scott's Co. Professional Turf Business well underway, consolidation will be the watchword in the fertilizer industry in the months to come.

"I believe this will be the catalyst for consolidation in the industry," said Scott Todd, senior vice president for Scotts Professional Business Group. "It will allow for greater efficiencies, courses will buy from fewer vendors, the industry dynamic will be healthier and there will be a more stable supplier — which is ultimately better for the end user."

According to Richard Anderson, president of Andersons Processing Group, industry consolidation is not only inevitable, but overdue.

"The fertilizer business is behind the eight ball compared to other industries," he said. "The forces behind consolidation are supply-chain management, critical mass, volume, economies of scale and logistics."

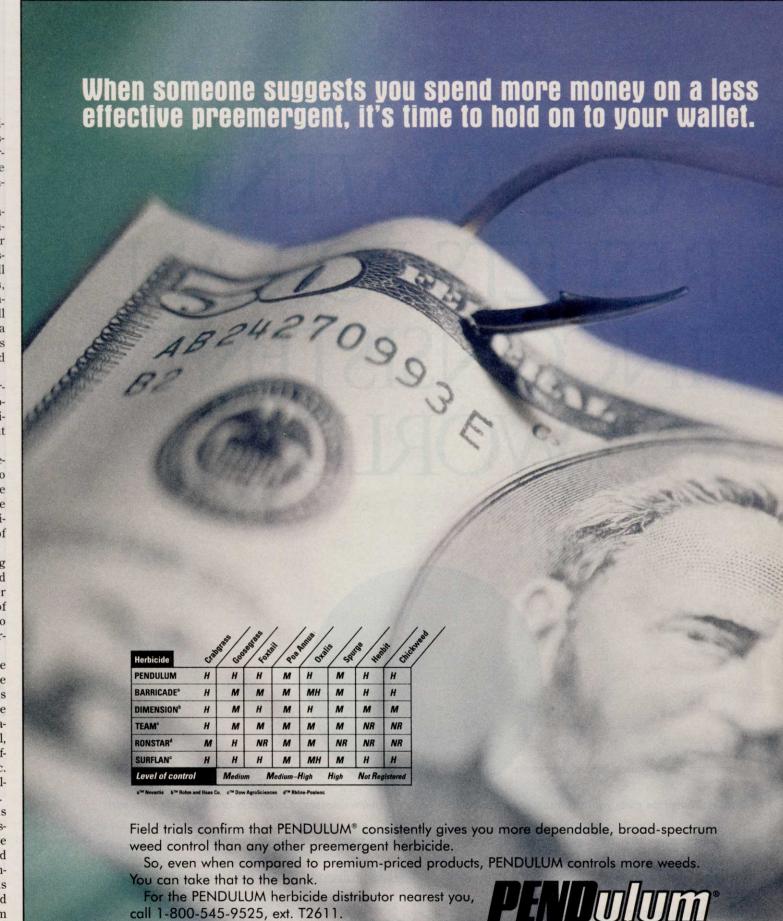
J.R. Simplot's impending agreements with Eco Soil and Pursell Technogies are further examples of this first wave of consolidation that is destined to change the structure of the fertilizer business.

"With Scotts abandoning the professional turf market, there is a foray of different companies trying to scramble around to see who is going to be the next national leader," said David Pursell, president and chief executive officer of Pursell Technologies, Inc.

Distribution changes and challenges are also to be expected.

"As time marches on, what is going to happen in this industry? There is going to be more and more consolidation and fewer and fewer truly independent distribution organizations and dedicated sales forces," said Eco Soil President William Adams. "When that happens, you don't have to sell everybody's product and you can narrow down to a few players in each category, allowing for more effi-

Continued on next page



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Redexim/ Carraro

Continued from page 59

By adding Carraro turf tractors to its existing product lineup of seeding and aeration attachments, Redexim expects to boost its market share.

"We can't compete head to head with the larger U.S. companies," said David Jenkins, managing director for Redexim Charterhouse. "We think the way to go is to find a niche and exploit it."

Carraro's tractors offer several unique design characteristics that make them highly specialized and versatile machines.

The tractors are high-powered units that combine horsepower (hp) with a trim design and high maneuverability. The tractors offer a number of technical innovations useful to turf professionals including ergonomic systems that permit the driver's entire control system - seat, steering wheel and all controls - to be reversed. This allows the tractors to convert to either push or pull attachments in just five seconds.

The turf series tractors include a small hydrostatic model, the medium-sized compact version and the large two-faced hydrostatic-mechanical machine. Engines range from 21 to 70 hp.

"The integration of their tractors with attachments designed in-house by Antonio Carraro, and interchangeable among machines in the same series enables them to perform an incredibly broad range of maintenance duties," said Threadgold.



ABT

Continued from page 59

ket has delisted the company's stock which last closed at \$2.31 per share, having fallen from its 52week high of \$10.81. The stock peaked at \$29.50 in June 1998.

At the crux of the bankruptcy filing is ABT's failed negotiations with creditor GE Capital. ABT was unable raise \$15 million in unsecured loans as required by GE Capital as a condition to providing a \$135-million revolving line of credit.

All members of the company's board of directors and all of its officers have resigned and U.S. Bankruptcy Court has approved the appointment of William A. Brandt as the person responsible for the day-to-day operations of the company. To assist Brandt in reorganizing ABT, the court has also approved the company's retention of Development Specialists Inc. (DSI).

Brandt, together with DSI and ABT's other professionals, have determined that it is in the best interest of the company's estates to sell the assets in one or more goingconcern sales as efficiently and expeditiously as possible, provided that sufficient financing for an orderly sale process exists. The company is in the process of preparing a bid-solicitation package.

ABT's arrangements for interim operating funds with its current lending group, led by Bank of America N.A., expired on Feb. 25 and a debtor-in-possession loan agreement is being negotiated from the same group of lenders.

Consolidation

Continued from page 65

cient customer service."

Efforts by distributors to combine their product lines, however, will create some interesting situations.

"Eco Soil is a distributor of ours," said Anderson. "When you consolidate the lines between competitors things get a little blurred. Are you competitor, or a partner? These are the dynamics that are playing out in real time."

Nonetheless, Anderson is up to the challenges that consolidation represents.

"This is great opportunity. We see it and we want to be a player and not on the sidelines," said Anderson.



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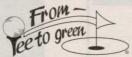
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Golfsat.com

Continued from page 59

manufacturers, distributors and other related products and services. Golfsat users can also access DTN satellite weather for regional or national forecasts. In addition, Golfsat offers configurable chat, enabling a superintendent to filter or identify a region of peers with which to communicate.

There are 1,100 manufacturers and 50,000 products represented on the Golfsat website. Superintendents can look up a manufacturer, click on the product, configure the order, select a distributor, get pricing and throw the product in the virtual "forklift." The product is then ordered via Golfsat's secure distributor interface.

Likewise, Golfsat has catalogued research publications from 42 universities and has several consulting professors under contract. "Universities lead the Internet online," said Scott. "But you would be challenged to go to a site and in a few minutes find where their turfgrass or horticultural research is.'

On Golfsat, superintendents can select a turf species and then choose from a list of insects specific to that turf. The site then links up to research relating to the pest and eventually to a product catalog page that suggests what to use to solve the problem and then places an order.

CHALLENGES

There are several challenges in launching Golfsat.

First, superintendents have limited computer hardware, 15 to 20 percent have no computer at all and only 10 to 15 percent have a computer with decent processing capabilities, said Scott. Those who already have computers and Internet access will be able to use the site for free.

Further, a very small percentage of superintendents has access to DSL or cable lines and only one to five percent have 56.6 modems.

To solve these problems, Golfsat is offering a hardware package to users that includes a fully equipped Pentium III personal computer and high-speed, broadband Internet access from anywhere in the nation using satellite, cable or DSL configurations. The package will cost \$29.95 a month and will be available this summer. Work on the satellite network is still being sorted out.

While Golfsat hopes to have direct access to a distributor's inventory, those agreements are also in flux.

"We have captured all the manufacturers' data. The challenges now lie with the distributors," said Scott. "We are on that road right now and if things start this summer we will begin to actively recruit other distributors and go through that conversion process."

However, if the interest shown at the GCSAA International Conference and show is any indication, signing on additional distributors and manufacturers will not be that difficult.

The manufacturer and distributor interest is something that we didn't anticipate," said Mike Trompeter, senior vice president of member and distributor relations. "The amount of top level people that stopped by and spent time with us understanding the program was very encouraging."

Continued on next page

Golf Course Marketplace

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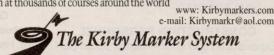
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- * For more information contact the GCSAA Education Office at 800-472-7878.

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Continued from previous page

A significant number of superintendents also registered for Golfsat at the show, said Trompeter.

GOING FORWARD

Golfsat will be tested at 200 beta sites in California, Arizona, North and South Carolina, and Florida this month which will be served by 12 distributors.

"We will work on flushing out bandwidth issues, but we expect that because of isolation and the limited availability of DSL, most golf courses will wind up with satellite connections," said Scott.

Golfsat is set to roll out nationwide this summer and Scott said the company is structuring itself to accommodate 70 to 80 percent of the nation's superintendents. "In the next three years, we hope to get to the 10,000 to 12,000 range," he said.



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