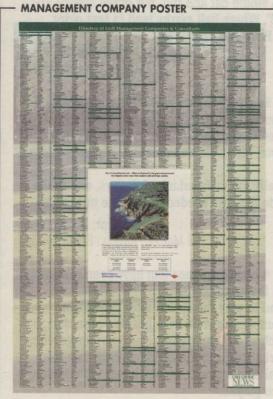
THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

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EPA close on reassessments

Agency working on possible use restrictions for three turf-related chemicals



GCN's annual management company chart on page 32.

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COURSE MANAGEMENT

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SUPPLIER BUSINESS

Chlorophyll meter technology close to market ... 31

PERIODICAL

Simplot, Budd make offer for ABT assets

By ANDREW OVERBECK

HENDERSON, Nev. - AgriBioTech (ABT) has reached an agreement in principle to sell its turfgrass seed assets and Professional Turfgrass Division to Kenneth Budd, former ABT president and chief operating officer, and Post Falls, Idaho-based J.R. Simplot for approximately \$65 million, plus assumption of liabilities. The two parties are also expected to assume ABT's obligations under contracts with its growers. The exact details of the Budd/Simplot deal were not disclosed.

For the past two months, Development Specialists Inc. (DSI) has been overseeing the reorganization of ABT and taking bids on the company's assets. DSI expects the deal to close by the end of June, but stresses that it must first be approved by the bankruptcy court and that competing bids may still be submitted by other parties.

Simplot has been aggressively expanding its reach in Continued on page 4



Arnold Palmer (foreground) and M.G. Orender at the groundbreaking for The Golf Club of North Hampton. Hampton Golf, Orender cater to beginners

By ANDREW OVERBECK

JACKSONVILLE, Fla. - M.G. Orender's new management firm, Hampton Golf, is moving ahead with its beginner-friendly club management philosophy.

The concept is simple," said Orender. "The first club I was a pro at, we had sluggish business, so I started a junior program. We started with six kids and grew to 160 kids in about three years. In that time, our gross receipts doubled and that happened because when you get kids out there, you get the parents involved too. I learned that if the beginner is comfortable and is treated well, they won't go anywhere else.'

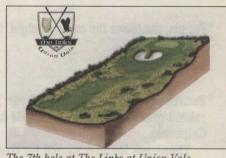
Continued on page 30

Irish golfers open new Stephen Kay links in New York

BV JAY FINEGAN

UNION VALE, N.Y. - A little touch of Ireland has sprung up in New York's Hudson River Valley, thanks to the financial backing of 500 golfers of Irish descent and the talents of golf course architects Stephen Kay and Douglas Smith. The Links at Union Vale, just now opening, undoubtedly ranks as one of the most unusual golf course development projects in recent years.

The par-72, 18-hole, links-style layout is the brainchild of the Irish Golf Association (IGA), comprised of about 30 clubs clustered in the New York metropolitan area. "Much like bowling leagues, these are Continued on page 24



The 7th hole at The Links at Union Vale.

EcoAegis changes modern Manufacturers eye total course hydroseeding rules

By A. OVERBECK

NORTH OXFORD, Mass. - Growing turf on bunker, tee and green surrounds was once a job that was best suited to sod. That, however, is changing

EcoAegis, a bonded hemlock fiber mulch and seed mixture, produced by **Canadian Forest Products**

(Canfor) of Vancouver, British Columbia, is becoming more widely used in steep sloped areas as a seeding agent and an erosion control device.

Hydrograss Technologies, based here, is the exclusive East Coast distributor of EcoAegis.

"We first used it on landfills. Engineers used it on 3-to-1 slopes in lieu of erosion blankets and had great success," said Robert Arello, president of Hydrograss Technologies.

EcoAegis combines hemlock fiber with a guar bonding agent creating a matrix cover that prevents erosion by absorbing the Continued on page 14 Global Positioning technology

By ANDREW OVERBECK

In today's information-crazed society, satellite-driven Global Positioning Systems (GPS) are becoming more widely used as the technology improves and costs come down. GPS systems are being used as navigational de-

vices by backroad weary and, yes, even 300 courses in States have insystems on golf age speedier players to pinshot distances



woods hikers, businessmen, golfers. Some the United stalled GPS cars to encourplay, allow point exact and increase

food and beverage revenues.

Not to be left out of the GPS revolution, large maintenance equipment manufacturers have teamed up with "clubhouse based" GPS companies to develop a total course solution that would bring the satellite technology to superintendents.

PARTNERSHIPS

John Deere acquired Boston-based Player Systems in Continued on page 32

What they're saying about **The New 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

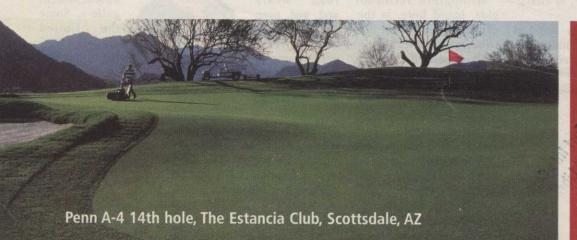
"Because of the short season at our 7,500 ft. elevation, we sodded our rebuilt greens with 42" wide rolls of Penn A-4 from West Coast Turf in California.

There, we found a source for rootzone sand that closely matched our own, and the long, wide rolls minimized seams. We re-opened 5 weeks after sodding, and dense, fibrous roots reached 10-12" in a matter of months."

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

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

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



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

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

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

> John Lof, Supt. Michelbook CC, McMinnville, OR

"Penn A-4 greens do not mean more work, more trouble, and do not cost more money to maintain. In fact, just the opposite may be true. We have found that they require fewer cultural practices such as vertical mowing and brushing.

In two years of managing Penn A-4, we have not observed any brown patch or dollar spot, and greens require limited amounts of fertilizer."

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

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

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

"We resodded high stress areas in our PennLinks fairways with Seaside II, and are very pleased with its performance. I selected Seaside II with improved dollar spot disease resistance and salt tolerance to address two major turf challenges; the coastal influence and potential sodium buildup from irrigation.

We find Seaside II a strong ally to our PennLinks fairways, and in the future, will slit seed with Seaside II where needed to enhance turf quality."

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

"We have 36 putting greens and 4 practice greens that have been converted from Toronto C-15 to Penn A-4 Creeping bentgrass.

When the greens were placed in play the spring after conversion, comments from our golfing membership were very positive even though turf maturity had not been reached. Putting trueness and turf appearance were among the positive remarks most often mentioned. Now that the putting surfaces have additional development, comments are the greens are superior to anything they've played."

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

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

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

Penn A-1	
Penn A-2	
Penn A-4	
Penn G-1	
Penn G-2	
Penn G-6	
Seaside II	
NuPenn Blen	C

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BRIEFS

SAN JOSE, Calif. — A federal judge ordered a halt to construction of Silver Creek Golf Course here, ruling federal officials failed to ensure that endangered species would not be harmed.

LAS VEGAS - Las Vegas' Southern Highlands Golf Club opened for play recently. The father-and-son team of Robert Trent Jones Sr. and Robert Trent Iones Ir. collaborated on the 7,381-yard layout, located 10 minutes south of the Las Vegas strip. The golf club is the centerpiece of a 2,300-acre master-planned community currently under development.

...

JAMAICA - The Ritz-Carlton has unveiled its new Club and Golf Division. It will operate its first course, The White Witch at The Ritz-Carlton Rose Hall, Jamaica, when the resort opens this month.

CHARLESTON, S.C. - The National Golf Course Owners Association has launched its web site at http:// /www.getlinkedplaygolf.com, where it provides information on the courses participating in its player development program.

EPA close to reassessments on three turf chemicals

By ANDREW OVERBECK

WASHINGTON - The Environmental Protection Agency (EPA), which is reviewing the registration of organophosphates under the Food Quality Protection Act of 1996 (FQPA), is close to rendering reassessments on three turfrelated chemicals.

On April 28, EPA released a revised risk assessment for trichlorfon, Bayer Corp.'s Dylox turf insecticide. On June 8, the EPA is scheduled to hold a technical briefing and announce the revised risk assessment on chlorpyrifos, Dow AgroSciences' Dursban insecticide. Bayer and the agency are also working on possible mitigation measures for fenamiphos, the popular turf nematicide, known as Nemacur.

DYLOX

While many in the industry are afraid that FQPA will lead to use restrictions, turf uses for Dylox appear to be in the clear.

"Most risks to loaders and applicators are not of concern," said the EPA in its revised risk assessment. "The registrant, Bayer Corp., has recently submitted generic and chemical-specific data pertaining to post-application exposure. The agency review of these data could impact the residential and occupational risk assessment for trichlorfon."

"The EPA has said in its evaluation, as it relates to golf courses, that there is no concern for workers who mix or apply the

product, no concern for workers who perform activities on the golf course and no concern for golfers," said Dr. Monty Eberhart, product safety manager for Bayer.

While Bayer and the EPA are still working on other potential use restrictions, Eberhart said they are pretty close to being in full agreement.

DURSBAN

The outlook for turf uses of chlorpyrifos also appears to be favorable.

"The EPA is focusing its concerns on residential uses of chlorpyrifos and that is being driven by what the EPA has categorized as exposures to children," said Tim Maniscalo, manager of government and public affairs for Dow AgroSciences. "There may be some proposed mitigation measures on use in and around homes."

Once the technical briefing is held in June, Dow and the EPA will go to work on the mitigation measures - a process that even now is in a state of flux.

"It is entirely possible that the registrant [Dow] may do something between now and then [the revised risk assessment]. If they felt there was some particular use or another that was especially problematic and they agreed to cancel

that use, it would change our own assessment," said EPA spokesman Mike Scott.

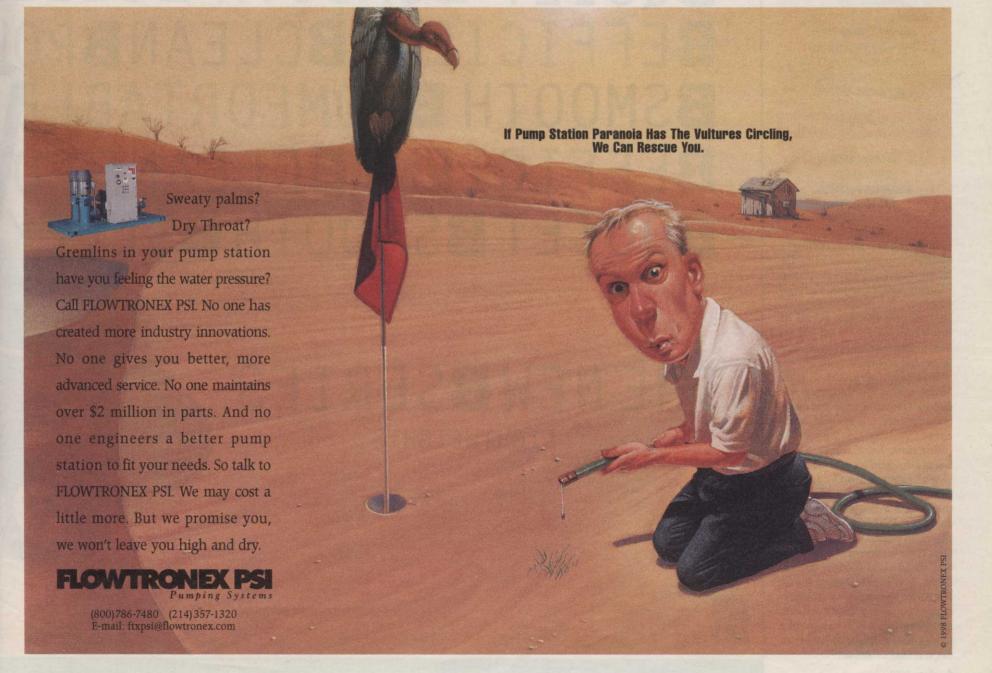
While Maniscalo doesn't discount working out a compromise with the agency, he said Dow still has a number of scientific problems with the risk data generated by the EPA

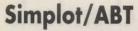
"We still have some serious discrepancies with the agency on science policies and until those are resolved, we won't

agree to anything," he said. NEMACUR

While Bayer is having good luck with Dylox at the moment, things are not looking good for Nemacur. The reassessment is now in stage five, risk management and mitigation measures.

"We are having some critical discussion with EPA and they seem to have concerns and we think those concerns are not well-founded," said Eberhart. "The EPA is looking to restrict use in golf [and has] worker exposure and runoff concerns. We are trying to convince EPA that those restrictions are not justified."





Continued from page 1

recent months, signing an exclusive distribution agreement for POLYON fertilizers with Sylacauga, Ala.-based Pursell Technologies, Inc., and agreeing to purchase Turf Partners, the distribution arm of Rancho Bernardo, Calif.-based Eco Soil Systems, Inc.

ABT brings a lot to the table, said Wayne Burk, senior vice president of Simplot Turf and Horticulture.

"We are looking for fits with our strategic growth plan," he said. "There are a few distribution businesses that we had an interest in and obviously from the seed side there are a number of varieties that have some real brand equity."

J.R. SIMPLOT ON THE MOVE

EARLY MARCH 2000 — SIGNS POLYON MARKETING AGREE-MENT WITH PURSELL TECH-NOLOGIES, INC.

LATE MARCH 2000 — AGREES TO PURCHASE TURF PARTNERS ASSETS FROM ECO SOIL SYSTEMS, INC.

MID-MAY 2000 — J.R. SIMPLOT/KENNETH BUDD PURCHASE BID ACCEPTED FOR ABT'S PROFESSIONAL TURFGRASS DIVISION.

DIVISIONS OF J.R. SIMPLOT

JACKLIN SEED BEST/APEX MEDALIST AMERICA JACKLIN GOLF

If the deal goes through, Simplot would pick up such distributors as Las Vegas Fertilizer, Phoenix-based Garden West and Florence, Ky.-based George W. Hill. Also in the mix would be top varieties like Loft's L-93 bentgrass, Palmer ryegrass and Rebel tall fescue.

However, even if Budd/ Simplot wins the bid they will conduct due diligence and could either submit a lower bid or decline.

For now, Burk remains cautiously optimistic.

"For example, Las Vegas Fertilizer is attractive to us because they were a big distributor of ours and they are a dominant player in that market," he said. "But their business is not what it was six to eight months ago, so there are some issues there. However, we are also in the process of acquiring Turf Partners, and if we can add a facility like Las Vegas Fertilizer to Turf Partners, it makes sense!" NEWS

By ANDREW OVERBECK

EUGENE, Ore. — The litigation between the Perennial Ryegrass Bargaining Association (PRBA) and Seed Research of Oregon (SRO) and Turf Seed, Inc. is slowly pressing forward here in the United States District Court.

The parties are still involved in depositions and the discovery of documents which are both scheduled to be wrapped up this fall. "After that, if a settlement conference doesn't work, then we will go to court and that could happen this winter," said Jim Carnes, PRBA executive director.

At the crux of the conflict, the PRBA alleges that the two seed companies acted unlawfully when they announced on the eve of last year's harvest that they would pay contract growers a price for Tournament Quality perennial ryegrass seed that was substantially less than the price set by the PRBA for the 1999 crop. SRO and Turf Seed, however, deny



these charges and have challenged the legality of the PRBA and accused the organization of violating anti-trust laws.

"This is one of the most important litigations in agriculture," said Carnes. "Whichever side prevails, it will have an impact on U.S. agriculture."

Continued on next page

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THE NEWBSERIES LIGHTWEIGHTS



Golf Trust's next World Scientific Congress planned

ST. ANDREWS, Scotland — Golf Trust's World Scientific Congress of Golf will be held at the University of St. Andrews here, July 23-26, 2002, and will again provide a forum for the international participation of both scientists and golf industry professionals.

Dr. Eric Thain, director of the

HNDEERE

Trust, believes the broad range of scientific disciplines guarantees a bright future for golf-related research. The Congress will again provide a focal point for the discussion of research results and issues, as well as their practical implementation.

"The objectives of the Congress are two-fold," Thain said. "First, to facilitate technical and scientific exchanges related to golf research between countries, institutions and individuals, as has been our trademark in the past. Second, to develop international cooperation and understanding between researchers and those in professional practice."

Since the 1998 Congress, the

Trust has dramatically increased its ongoing services to both researchers and practitioners, to include golf research newsletters, the bi-monthly publication *Golf Science International*, and access to library and database facilities. These are available through membership schemes specifically tailored for researchers and practitioners, respectively. They both enjoy the ben-

Excellence has a new letter. The new

John Deere 3215B Turf System I and the

3235B Turf System II take lightweight

fairway mowers to new heights of effi-

ciency, cut quality, and grass collecting.

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generation for improved power. (The 3235B

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new triple pump has 12-tooth gears for a

electric fan drive improves engine cooling

performance while reducing sound levels

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local John Deere golf & turf distributor.

And the cutting units can be easily

lower internal pressure drop and

improved flow dynamics. A standard

efit of funding from the Royal & Ancient and the U.S. Golf Association (USGA).

"We already have as members many of the leading figures in golf and science, and the Trust's objective is to embrace as many as possible of those endeavoring to make a positive contribution to the golf section, while finding enjoyment and satisfaction from personal achievement in the process," said Thain.

To publicize its membership opportunities, the Trust has been given support by many of the large golfing organizations around the world, including the Australian, American, British and European PGAs; the United Kingdom and Ireland Golf Unions; and the R&A and USGA. These include links to the Trust web site, a feature which is also being taken up by Golf.com.

"We fill a niche by providing authoritative objective information in a sector characterized by hype, that is clearly appreciated by our rapidly expanding membership," said Thain.

For further information, contact Valerie Melvin or Dr. Eric Thain at 44-0-1334-475560.

Dates set for int'l golf tourism convention

CADIZ, Spain — The 3rd World Golf Tourism Convention will be held at Montecastillo Hotel & Golf Resort here, June 22-26.

Speakers will address such issues as trends in the golf tourism industry, construction and development of golf resorts, international resort marketing, sponsorship of professional tours and leading golf tournaments, the golf media and its coverage of golf tourism.

For more information, contact Ramon Davila Consulting at tel. 956-29-33-16; fax 956-27-11-32.

PRBA lawsuit

The PRBA intends to fight this one out for the growers, said Carnes. "A lot of growers have either not been paid or have been partially paid," he said. "There has been a constant battle over the price of turf-type perennial ryegrass for the overseeding market for the last 30 to 35 years and it isn't going to get corrected when dealers fight over market share and reduce grower prices."

WHAT A FAIRWAY MOWER SHOULD BE.

SHARP BSTRONG RFULBPRECISE BCOMFORTABLE RFULBPRECISE HARP BSTRONG FULBPRECISE



GCNI teams up with Frankfurt golf show

FRANKFURT, Germany — Golf Course News International will serve as the official publication for the first Golf Course International, a trade show and conference which will be here Dec. 5-7 encompassing golf course planning, construction, maintenance and course and club management. Coordinated by Messe Frankfurt Ausstellungen GmbH of Wiesbaden, with GPI Golfprojection International as a strategic partner, the conference is anticipated as "a milestone in professionalizing the golf business in Europe."

"We believe this show, being held at a hub of world travel and with an impressive array of speakers and exhibitors, will become integral to golf development in future years," said *Golf Course News* Group Publisher David Premo. "As the newspaper for the golf course industry around the world, it is important for us to be involved."

The show will take place at the

Frankfurt Fair Grounds exhibition center, 20 minutes away from Frankfurt airport, where flights arrive daily from all international destinations.

One key conference topic, according to Messe Frankfurt Managing Director Thomas Schuetz, will be wastewater treatment and its re-use for irrigating golf courses — not only important for courses in dry geographical regions but also because of increasingly rigorous legal restrictions.



Working on

the premise that the economic aspects of golf have often been neglected, the conference will address what measures club managers can take to enhance efficiency.

Because of the need to promote the game, GPI Golfprojection International is initiating a new movement, "Europe Goes Golf," and will stress how to reach the enormous untapped numbers of wouldbe golfers.

Suppliers will attend from many countries, Schuetz added.

Golf Course International 2000 will provide a framework for workshops and half- and full-day seminars on golf course deisgn, planning, construction, maintenance and management. They will be organized "in close cooperation with industry consultants from the United States Golf Association and Golf Course Superintendents Association of America," organizers said.

TPI plans summer convention

SPOKANE, Washington — After a record-setting Midwinter Conference in San Antonio, Texas, Turfgrass Producers International (TPI) has shifted its sights toward its July 19-21 Summer Convention and Field Day here.

Some 820 turf producers and exhibitors from around the world came to San Antonio to advance their education, visit exhibitors and enjoy a Texas-style private party with country/Western star Tracy Bryd one night and a raging Zydeco band and crawfish boil the next night. TPI's exhibit area grew by more than 22 percent over last winter, with 72 exhibitors filling Adams Mark Hotel's special hall.

While in San Antonio, plans for the group's Summer Convention were finalized by committees of members, exhibitors and demonstrating firms. Maryland Ray, owner of Ray Turf Farms, will host the group's 33rd annual convention in Spokane that will feature formal education sessions, tours, social events and two days of on-farm equipment displays and demonstrations.

Information about exhibiting or participating in Spokane is available from TPI's website at www. TurfGrassSod.org or by contacting the TPI office at 800-405-8873, 847-705-9898, or e-mail Turf-Grass@MSN.com.

Texas, Turfgrass ternational (TPI) sights toward its Jumer Convention a here. Some 820 turf p exhibitors from arc

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Weed opening four courses in 2000

PONTE VEDRA BEACH, Fla. — Weed Design will open four new courses this year from Florida to Minnesota, including Glen Mills Golf Course, which will serve as a rehabilitation center for troubled youngsters, providing education and vocational training.

Leaders of the private Glen Mills Schools outside Philadelphia believe they will be able to provide additional opportunities for youngsters by involving them in the golf course operation and adding golf-related subjects to the curriculum.

An early fall opening is scheduled for the course, which is built in the parkland tradition of the area. It wanders over rolling ground and through mature hardwoods, void of any development. Stacked sod bunkers are found throughout the course. The Glen Mills Golf Course is a par-71 layout, 6,800 yards in length.

Other Weed courses opening this year are The Olde Farm, a private golf club in Bristol, Va.; Stoneridge Golf Club, a semi-private facility outside St. Paul, Minn.; and The Golf Club at Fleming Island, also a daily-fee course, just south of Jacksonville.

"As a small company, this is a big year of openings for us," said Bobby Weed. "We have a very hands-on approach, and our commitment to each design does not allow us to take on many projects at once. The distinctive look that characterizes each of our courses that opens this year is a result of that philosophy."

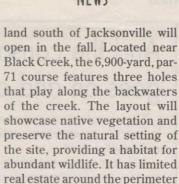
The Olde Farm is set in the foothills of the Appalachians. The property was once a working farm, and the flavor of that operation was kept intact. Two existing barn structures as well as most of the pasture fences were incorporated into the layout. Fruit tree groves, berry bush hedgerows and baled straw add to the motif. The tumbling terrain was ideal for routing golf holes.

The site offers vistas across the property, and every hole is visible from the clubhouse. Sinking Creek, which runs through the property, comes into play on six holes. The Olde Farm opened March 31. It measure 6,885 yards with a par 71.

Stoneridge Golf Club is a twist on the great heathland layouts found overseas, Weed said. Part of the site was an abandoned sand quarry, and several holes are routed through it. Large sandy bunkers and native prairie grasses are featured extensively throughout the course.

The open site exposes golf shots to ever-present wind. Fair-GOLF COURSE NEWS ways will be kept dry and rabbity for run-up shots. Bold bunkering and dramatic contours offer golfers a number of gambling opportunities, suiting the course for both match and stroke play. There is limited real estate around the core-routed golf course. A mid-summer opening is planned. Stoneridge Golf Club is a 6,850-yard, par-72 layout.

The Golf Club at Fleming Is-



of the course.

NGCOA AUCTION NETS \$35,000 FOR ROSSI SCHOLARSHIP

CHARLESTON, S.C. — The National Golf Course Owners Association (NGCOA) hosted its first Live and Silent Auction benefiting the Don Rossi Scholarship Fund during its recent Annual Conference and Trade Show. The auction raised more than \$35,000 for the scholarship fund, which the NGCOA matched with \$50,000 for a total of \$85,000 raised to benefit the fund. The scholarship is awarded annually to a college student pursuing an education in golf management. This year's recipient was John Tidikis, a junior at the University of South Carolina.



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> > June 2000 7

COMMENTARY

Greetings from new editor

It's a privilege to introduce myself as the new editor of Golf Course News. I wish I could shake hands with each of you. Hopefully we'll have a chance to get acquainted in person before too long.



My interest in golf dates back to age 13, when I spent the first of several summers as a caddy at Whitford Country Club, in Exton, Pa. I knew practically nothing about the game when I started there, and was always amused when a member asked my advice about which club to hit. I would stare at his assortment of clubs with no more comprehension than a shrimp examining a nuclear submarine. The caddies were permitted to golf on Mondays, and the more I played, the harder I was bitten by the "golf bug." Today I

editor

love the game. I've never agreed with Mark Twain's famous observation that golf is "a good walk spoiled." The way I see it, golf is a good walk enhanced.

My interest in journalism dates back to high school, when I became a sportswriter for the school paper. Later, as a student at Penn State University, I continued covering sports for the campus newspaper, The Daily Collegian. Penn State has two 18-hole courses on campus, the Blue and the White, and it was on those courses that my level of play advanced from "wild hack" to "moderate hack."

From college I moved on to military service. The Army, in its wisdom, saw fit to assign me to Heidelberg, Germany - a splendid duty station that had its own fine American golf course, built after World War II by the occupying forces. The Heidelberg Golf & Sports Club became a favorite hangout for those of us who liked to hit "the dimpled seed," as my commanding officer called it.

Returning to civilian life, I moved to Washington, DC, and took my first paid job as a journalist, covering Congress, the White House, and other government agencies for a chain of weekly newspapers. For another five years or so I served as a kind of foreign correspondent, reporting magazine articles about everything from wars in Central America to fishing in Alaska to the bar scene in Bangkok.

In 1986 I switched to Inc. magazine, a national monthly that focuses on entrepreneurship and business management. As Washington bureau chief and columnist, I explored the impact of politics and policy on various sectors of the business world. Finally, in 1991, I moved my family from Washington to Maine in search of a higher quality of life - and less crowded golf courses.

My goal as editor — and our goal as a staff — is to provide you not only with news about the golf industry, but also some interpretation of what that news means to you. What's the story behind the story? We hope to inform, entertain, and analyze, all with the fundamental objective of helping you run your business more effectively.

I'm delighted to be on the team at Golf Course News. Please don't hesitate to call with your ideas, your concerns, or your questions. I look forward to meeting all of you - and playing golf with many of you.

And the consolidation beat goes on and on and on...

The consolidation movement that has overtaken the golf industry in recent years continues on both the management and supplier front.

A look at our annual listing of management firms and their courses (see insert) reveals more than 1,500 courses nationwide are run by multi-course operators. That's up more than 100 courses from the list we ran a year ago and is fast approaching 10 percent of the nation's golf course market.

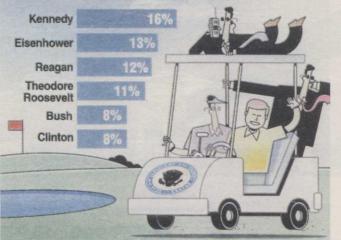
While American Golf Corporation and ClubCorp continue to be the major players in the course management field, others are coming on strong, both in terms of the number of courses they operate and the quality of those operations.

On the supplier side, Simplot has made a bid to purchase AgriBioTech (see page 1), the financially troubled turfgrass seed supplier which became a major player by consolidating a number of seed companies

The cost advantages and operating efficiencies available through consolidation mean this trend will likely continue well into the next century.

Presidential Partner

If you could play a round of golf with one U.S. President



irce: GCSAA's 2000 Golf Leadership Surve

The Masters no place to show your temper, Mr. Duval

gland — Another Masters, another season is upon us, another £10 handed over to William Hills bookmakers with zero return thanks to Jim Furyk. If you need to look for a showcase event for golf, then the Masters is ready to rock and roll. My wife, a nongolfer of the lowest order, loves to watch the Masters. There really is something, some indescribable lure that captures the imagination. Non-golfers watch the Masters, more than any other golfing event I would venture.

Such a shame, therefore, that David Duval should display such a fit of pique on the last hole that even the aforementioned 'SWMBO' (She Who Must Be Obeyed), made the point: "Ouch! The groundsman will be really cross won't he?" This in response to Duval's impromptu gardening session after landing

MARKET DRAYTON, En- in a divot and making a cods of his approach shot, thus leaving Singh with three putts for it.

> Alright, alright, I cannot claim any moral high ground here. I too have often made a tit of myself by burying my clubhead up to the hosel following a misjudged pitch shot (an underclub I like to call them), but that is very different. Despite my protestations that I

have merely aided the greenkeeper with his aeration program, the result is always the same - my playing partners rightly judge that I am an arse who ought to know better and, furthermore, the only real victim is myself as my anger overtakes rationality. But Duval?

Trevor Ledger

international

bureau chief

Sure he is playing for a major, for zillions of dollars, at a standard that is incomprehensible. But he shouldn't have attacked the turf in such a churlish way.

> So he was in a divot? Tough. Welcome to real conditions. If he is as good as his earnings indicate, then a mere divot should do one of two things; give an opportunity to show how good he is or give an opportunity to show that a sportsman can take the rough with

the smooth. Does he immediately write a check to the greenkeeper when superlative maintenance gives him a perfect lie that perhaps he didn't deserve? I think not.

I can't help myself here. I know that I sound like a retired Major-General in full pompous fig. But where is the man's respect? If a greenkeeper offered Duval advice about his alignment during the middle of a tournament, criticized him at the top of his backswing for example, would Duval thank him and reassure him that his input is helpful? No. Therefore why is it accepted that Duval can show such disrespect to the greenstaff at Augusta with his temper tantrum? A prima donna flouncing to her dressing room until her tutu is altered it conjures an image, that's for sure.

The square foot or so of sward that Duval destroyed represents much more than a turf transplant and an awkward moment. It represents a role model giving a bad impression. If the 'hoped for hordes' of juniors take up the game of golf, I rather think that 'throwing the teddy out of the pram' will not form part of their etiquette training. So a mixed message comes from the shaded ice man: "It's OK for you to vandalize the golf course (which doesn't belong to you by the way) as long as the competition is important.



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managing editor

under the ABT banner just a couple of years ago.

course superintendents across the nation were asked from the last century, who would it be?

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COMMENTARY

Distinguishing the levels of the Signature Program

By RON DODSON

Nothing in life stays the same. In fact, change is good, especially if it's based on reflection and review and helps us to move forward. At Audubon International, we are dedicated to reviewing our programs to ensure they are meeting the environmental education needs of our members and our environmental standards. In light of that, we thought we would take this opportunity to clarify the various levels of Audubon International's Signature Program.

We created the Audubon Cooperative Sanctuary Program (ACSP) in 1991 with support from the U.S. Golf Association. The ACSP was designed to educate golf course superintendents about environmental aspects of managing existing courses. As more people learned about the program, landowners and others wanted to know how we could help them during the planning stages of developing new courses. So in 1993 Audubon International launched a program called the Audubon Signature Cooperative Sanctu-

Ron Dodson is president of Audubon International headquartered in Selkirk, N.Y.

ary Program. THE SIGNATURE PROGRAM

The Audubon Signature Program provides environmental planning assistance to landowners with projects in the design and development stages. Audubon International staff works with owners, architects, consultants, project managers and superintendents from the design stages through construction and helps them develop strategies to address environmental issues of a proposed development.

The Signature Program focuses on wildlife habitat management, waste reduction and management, energy efficiency, water conservation and water-quality management, as well as environmental issues relative to building and maintaining the maintenance facility. The goal of the Signature Program is to develop an environmental approach for planning and maintaining proposed developments that cause them to be environmentally and economically sustainable.

THE BRONZE SIGNATURE DESIGNATION

In the basic Signature Program, the landowner or developer, with the assistance of project consultants, conducts a comprehensive site assessment and de-

Overbeck moves up to managing editor

YARMOUTH, Maine — Along with other changes in the editorial offices of *Golf Course News*, associate editor Andrew Overbeck has been promoted to managing editor, succeeding Peter Blais, who is leaving to pursue a career in public relations.



Overbeck joined *GCN* as an international correspondent shortly after graduating from Earlham College in Richmond, Ind. in 1997. He covered the collapse of the Asian economy and golf course industry while on a yearlong Thomas J. Watson Fellowship studying the economic, so-

cial and environmental impact of golf course development in Southeast Asia. "Spending time in China, the Philippines, Vietnam, Thailand, Singapore, Malaysia and Japan was not only a great learning experience and introduction to the golf course industry," said Overbeck. "But it also gave me the opportunity to compare Asian and American development strategies. I also got to play a lot of golf."

Overbeck returned stateside in August 1998 and continued to contribute to *GCN* while working for two of United Publication's other business newspapers. He became associate editor of *GCN* in June 1999.

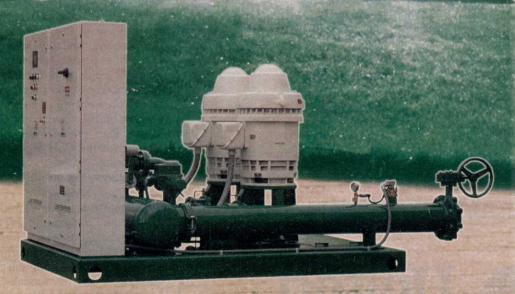
As managing editor, Overbeck will continue to cover international business and golf course development as well as the supplier business and new product beats.

velops a Natural Resource Management Plan that serves as a guidance document for everyone who is involved in developing and constructing the project and for those who will manage the property after it is developed. Although we have refined the process and requirements of the Signature Program over the years, the Natural Resource Management Plan still forms its foundation, and members who successfully complete and implement the plan and all of the requirements of the program are eligible to receive the Bronze Signature designation.

The Natural Resource Management Plan includes strategies for the planning, construction and management of a project consistent with Audubon International's environmental standards. Audubon Inter-Continued on page 10

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Dodson

Continued from page 9

national reviews the plan to ensure that it fulfills the Signature Program requirements, and when the project is completed, conducts a final on-site environmental audit to ensure that all aspects of the plan have been implemented.

In addition, because involvement in the Signature Program is not merely a means to receive an award, but rather a lifestyle of the project, periodic reports and site visits are a requirement to retain the Signature designation. AUDUBON INTERNATIONAL

INSTITUTE As interest in the Signature

Program increased, rather than depend on consultants to write their Natural Resource Management Plans, members began to ask if we would write the plan for them and if we could help them prepare other technical planning documents that would be consistent with our program and environmental goals. At the time, this type of assistance was beyond the scope of the Signature Program. As a result, it became obvious that additional staff and expertise was needed to fulfill these requests.

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So we created the Audubon International Institute.

The institute established two major departments to address the need for technical assistance: Research and Environmental Planning. The institute is comprised of individuals, academic institutions and organizations who have formed relationships with Audubon International and have specific expertise in envi-

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ronmental areas. Through these relationships, we have assembled a sizable team of staff and adjunct faculty who provide a variety of services for members and others.

SILVER SIGNATURE DESIGNATION

As we expanded our ability to provide additional assistance to landowners and developers through the Audubon Institute, we believed that through the institute, we could more effectively communicate and provide guidance for the environmental ex, pectations and requirements of the Signature Program. Conser quently, the institute's Environmental Planning Department began to offer its services to compile the necessary documents, perform site visits, and write the Natural Resource Management Plan for our members. In addition, the institute created an educational component to ensure successful implementation of the plan and long-term commitment to its strategies. Members who demonstrate a higher level of commitment by choosing to take advantage of these institute services are eligible to receive the Silver Signature designation.

GOLD SIGNATURE DESIGNATION

As the institute's reputation grew, we were asked to play an even greater role in the design and planning of more complex projects at an earlier stage. These projects might include development of a community with a residential complex as well as a golf course. For such projects, the institute provides a variety of services combined into the development of a comprehensive Environmental Master Plan. The master plan includes not only the Natural Resource Management Plan, but several additional documents including the Sustainable Resource Management Guidelines, an Audubon International Ecological Design, Sustainable Buildings Guidelines, and a Community Education and Information Plan.

The scope of the project, the involvement of the institute at its inception, and the broader range of expertise involved requires a major commitment to sustainability. Consequently, after implementing all of the phases of the Environmental Master Plan, projects would be eligible for the Gold Signature designation.

DETERMINING THE APPROPRIATE LEVEL

Ultimately, at any level in the Signature Program, every project must create a Natural Resource Management Plan and meet the Signature Program requirements and the fundamental standards of the Signature Program. The designations of

Continued on page 36

GOLF COURSE NEWS

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BRIEFS



MILLIKEN CHEMICAL ASSISTS GCSAA FOUNDATION

LAWRENCE, Kan. — Milliken Chemical Co. has pledged a commitment that could exceed \$250,000 to support programs of The Golf Course Superintendents Association of America (GCSAA) Foundation. The pledge places Milliken in The Foundation's Old Tom Morris Society, the highest giving level in the "Investing in the Beauty of Golf" campaign created to fund applied research and advanced education. Funding for the commitment comes from a percentage of sales from Milliken Chemical's foliars product line.

IGM HIRES MACKINTOSH

LAKELAND, Fla. – International Golf Maintenance, Inc. (IGM) has hired Greggory Mackintosh as superintendent for Widow's Walk Golf Course, in Scituate, Mass. The 18-hole public course, built on a former gravel and sand excavation site, opened in 1998. Mackintosh, with degrees in Turf Management and Urban Forestry, is a third-generation superintendent. IGM, a division of Meadowbrook Golf Group, is the largest service company in the contractual maintenance business.

WALTERS GOLF PROMOTES ST. JOHN

LAS VEGAS, Nev. — Gary St. John has been named course superintendent for Desert Pine Golf Club, Walters Golf's 18-hole daily-fee golf club near the Las Vegas Strip. St. John has more than 10 years experience, most recently at nearby Stallion Mountain Country Club.

Proper used fluid disposal, promoting employee safety

By TERRY BUCHEN



PALM BEACH GARDENS, Fla. — At Frenchman's Creek Country Club here, superintendent F.W. "Chip" Fowkes III stresses employee safety through state-of-theart Right to Know, Employee Safety Handbook and Hazardous Commu-

nication programs.

One of the most obvious examples is the club's handling of waste materials.

Waste materials are classified into non-hazardous and hazardous waste and then segregated into separate storage containers before being removed from golf course maintenance building properties.

Non-hazardous waste, such as used oil, which is comprised of crankcase oil, transmission fluid, gear oil, hydraulic fluid and power steering fluid, is usually put into a used-oil container ranging in size from 55 gallons to an average size of 250 gallons, or larger. Most states require that the used oil be recycled, and a permit, or at least written verification, is usually required to prove that disposal has been handled properly.

In some states, like Florida, used-oil filters must be temporarily stored in a totally separate container and also disposed of, usually by a recycling company.

Hazardous wastes include separate containers for used antifreeze/coolant, which is composed of ethylene glycol and wa-Continued on page 11

Greens mower sulky provides easier travel



By TERRY BUCHEN

KIAWAH ISLAND, S.C. — Modifying the John Deere Fixed Sulky, which is normally used for riding behind other equipment, Osprey Point Golf Club superintendent Steve Miller and equipment mechanic Jeremey Muckelvaney have defeated the old nemisis of transporting walk-behind mowers.

Until the late 1960s, transporting walk-behind reel-type mowers for greens, tees, collars and approaches around the golf course was accomplished by literally walking behind them. The boom in turf-vehicle transportation transformed the job, beginning in the 1970s, as the mowers could be transported either in the back of a turf vehicle with a built-in folding ramp, or with individual or dual mower trailers with or without ramps. Employees were much less fatigued, mowing time was significantly



Segregated waste containers provide easy removal by a recycling company.



Greens mower sulky frees up turf vehicles for use by others.

decreased and more was left in the capital equipment budget to acquire these efficient, multipurpose vehicles.

Miller and Muckelvaney took the next logical step at Kiawah Island Golf & Tennis Resort's Osprey Point, when they outfitted the mowers with sulkies, eliminating the turf vehicle and trailer. "We took the kick-stand off the back of the John Deere Model Continued on page 15

 Water woes?

 And course superintendents across the nation were asket.

 An average, are you using more or less water on the old course today than you were 10 years ago?

 Image: An average of the nation were asket.

 Image: An average of the nation

GOLF COURSE NEWS

ce: GCSAA's 2000 Golf Leadership St

Golf course water use decreasing nationwide

Annual survey shows course supers watering more while using less

LAWRENCE, Kansas — Golf course superintendents are conserving more water than they did 10 years ago. According to a survey released by the Golf Course Superintendents Association of America (GCSAA), the managers of the nation's courses are protecting one of the environment's most precious resources by watering more with less.

The GCSAA's 2000 Leadership Survey probed 1,800 course superintendents on a variety of issues pertaining to golf, golf course management and the industry as a whole. The results reveal that 40 percent of superintendents are using less water on their courses than they were 10 years ago. Of those using less water, 46 percent of superintendents are using 11 to 20 percent less than they were 10 years ago and almost a third (32 percent) said they are using between 20 percent and 50 percent less than a decade ago.

Sixteen percent of the superintendents said they are using the same amount of water as 10 years ago while only 33 percent answered they were using more water.

Interestingly, five out of six superintendents say they are applying water to the same or greater area of their course than they were a decade ago. More than half (55 percent) categorized the larger area by describing it as either "somewhat larger" or "much larger.

"I don't know of a professional who is more keenly aware of water issues than the golf course superintendent, and I don't know of an industry that has made as large gains in the area of water conservation as the golf course management industry," said GCSAA President R. Scott Woodhead.

"Today, we are much more well-educated and wellequipped on water management issues. Better grass selections for respective climates and computer monitored irrigation systems have been tremendous ad-Continued on page 13



Pros retiring their metal spikes

By JAY FINEGAN

NEW ORLEANS – The shift from metal spikes to plastic cleats, a virtual fait accompli among amateur golfers, has taken hold big-time among players on the PGA Tour. At one recent Tour event, the Compaq Classic, played here, only 57 of the 155 opening-round players sported metal spikes.

"These figures show that, at the very highest levels of golf, there is definitely a movement away from metal spikes," said Kelly Elbin, vice president of communications for Softspikes Inc., in Gaithersburg, Md. "The movement that started at the grassroots level seven years ago is very much in vogue on the Tour."

The Compaq Classic numbers were reported by the independent Darrell Survey Company, based in Atlanta, which provides weekly tracking data on four major tours. "They are the authority on the official counts each week," Elbin said. "They literally stand on the first tee on the first round of the event, and they go through each player's bag and write down what they're wearing and hitting. We've paid them to do the report on cleats and spikes since 1996.

"Six of the last seven winners on the PGA Tour were wearing our brand, including Veejay Singh at the Masters," Elbin added. "They're going to plastic cleats from a performance standpoint. It's all about traction."

Privately held Softspikes, which introduced the first plastic cleats in 1993, is credited with touching off the mass shift away from metal. It remains the market leader. Its Black Widow polyurethane cleat, which debuted last year, is now the top-selling cleat in the United States, according to the company.

Although an estimated 8,000 courses worldwide have banned metal spikes, Tour players have the latitude to wear whatever they want. The conversion of so many Tour professionals marks the fall of one of the last major bastions of metal spikes, and golf course superintendents seem pleased to see the revolution nearly complete.

"I think the pros were a little hesitant," said Dave Fearis, superintendent of Blue Hills Country Club, in Kansas City, Mo. "Their concern – and obviously their livelihood is dependent on it – is slippage while they are swinging. Once they broke that perception, and realized that some of these new plastic cleats offer great traction, it started going completely the other way.

"The plastic cleats are a godsend for us," added Fearis, who is last year's president of the Golf Course Superintendents Asso-12 *June 2000* ciation of America. The maintenance benefits of plastic cleats, he noted, extend beyond turf protection. "They don't tear up the carpet in the clubhouse, which saves a lot of money," he said. "They don't rip up the mats in the carts, and they don't tear up the benches that we've got around the tees. And of course



Softspikes' Black Widow.

they're a lot more comfortable. Your feet aren't tired after playing a round."

Proper fluid disposal means safety Continued from page 11

ter; used parts washer cleaner/solvent that is composed of mineral spirits; used chlorinated cleaners, such as carburetor cleaner and brake cleaner, that cannot be mixed with other wastes; and used paint waste, such as paint and paint thinner.

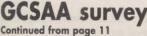
Meanwhile, Fowkes also posts a conspicuous sign in the employee lunch room that lists the days without a time-loss accident. It's a good incentive for employees.

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vances. Compared to other businesses, and most certainly homeowners, golf courses are among the most efficient users of water."

FURTHER ENVIRONMENTAL FINDINGS

Product use (pesticides, fungicides, fertilizer, etc.) on the golf course has seen both increases and decreases across all polled superintendents.

The results show that 36 percent of superintendents say they're using fewer products than they were 10 years ago and, in some cases, they're using up to a third less. On the other end of the spectrum, 35 percent say they're using more products. Twenty-three percent say they're using about the same amount of

product as a decade ago.

MAINTENANCE

Although clear advances have been made in water usage and irrigation, superintendents continue to fear the lack of it drought. When asked what environmental or weather-related condition could negatively impact their course next year, 50 percent said drought was what they are most concerned about. Course overcrowding and restrictions on pesticide usage (both 12 percent) were the second most common concerns.

With drought as their biggest threat, superintendents say fighting it is one of their toughest challenges. Forty-five percent of the superintendents say negative public perception is the biggest challenge in battling drought to maintain playable conditions. They also said it's

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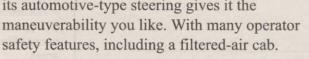
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The Spray Star 1600P/H. Our mid-size sprayer, now available with your

SPRAY STAR 1600P/H 160-Gallon Capacity New Hydraulic Drive choice of our new and exclusive hydraulic drive, or
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difficult to battle drought on an overcrowded course (21 percent) and that state-imposed water restrictions (18 percent) create their own operational challenges during drought.

GOLF COURSE MANAGEMENT

As superintendents are an integral part of course management, they are witnessing and enjoying record numbers of golfers on their courses each year. However, 95 percent of superintendents say the increase of the golf season is creating unrealistic expectations for maintaining playable courses through all four seasons.

When asked what could improve efficiency in course operations, superintendents responded with more diverse responses. The plurality of respondents (37 percent) say that within the next five years, they expect improved varieties of turfgrass to have the biggest impact. Close to a third (34 percent) say that better-skilled superintendents will be able to have an impact on improved efficiency. Other responses include improved irrigation technology (11 percent), increased use of sub-contract labor companies (5 percent) and improved mower technology (5 percent).

Looking ahead, superintendents are identifying future challenges in improving course conditions. Within the next five years, the plurality (32 percent) see a decreased labor pool as their biggest challenge.

Other concerns include an increase in operating costs (25 percent) and increases in environmental regulations (23percent).

TECHNOLOGY

The annual survey also revealed that superintendents have embraced the Internet.

Ninety four percent of respondents said that they have Internet access either at their course or at home. What are they using the Internet for?

Personal communication (46 percent) and obtaining industry information (44 percent) were the top two choices. Very few (4 percent) use the Internet for either business-to-business or personal e-commerce.

GOLFER ETIQUETTE

Behavior on U.S. courses is going downhill, according to superintendents. When asked whether golfer etiquette has improved, declined or stayed the same in the last 10 years, 51 percent responded that behavior on the fairways and greens has declined, while only 23 percent claim that etiquette has improved.

For the second straight year, superintendents (85 percent) identify the failure to repair ball **Continued on page 36**



Hydrograss Continued from page 1

impact of rainfall.

We put down 3,500 pounds per acre in a layer half an inch thick. It retains 12 times its weight in water," said Arello. The seed is sitting in a moisture bed that blankets the soil and has a better chance at getting established "

The seed/mulch mixture is

also fortified with a seed starter and nutrients and can be combined with micro nutrients and biostimulants. It costs 12 cents per foot, or \$5,300 an acre, to apply. EcoAegis is applied by a two-man crew using a 3,300 gallon hydroseeding truck with high flotation tires and a small-capacity 450-gallon cart to get into areas that are hard to reach. The EcoAegis is drop-shipped to the

job site and the course supplies the seed and fertilizer.

The first course to use the EcoAegis product was Blackstone National Country Club in Sutton, Mass.

"We used it on all tee and green complexes, fairway bunkers and some severely sloped areas,' said Jay Snyder superintendent at Blackstone National. "We moved 500,000 cubic yards of earth. We have a hole that drops 100 feet in elevation so we had some big slopes out there.'

However, Snyder was initially skeptical.

"When I first learned we were going to hydroseed, I wasn't so sure. On a slope that falls on a USGA green? No way," said Snyder. "I've always taken sod and put it up to the top so that no soil will migrate onto the sand in my greens.'

After testing the product on four holes, Snyder noticed the following advantages.

"By putting seed down in my green complexes, my watering practices were exactly the same as the green," he said. "If I had used sod, you have totally different watering practices.

"It held water well, we had two and a half inches of rain and there was very minimal erosion."

Snyder also was able to choose a 60/40 fescue/bluegrass blend that he couldn't get with sod.

Architect Tom Devane has used EcoAegis at some of his recent courses.

"We used it at the Orchards Country Club in South Hadely, Mass.," he said. "We did a renovation of all the bunkers and one green. The stuff held well on Donald Ross' steep bunker faces."

Devane will also be using EcoAegis at Lake Sunapee Golf Club in Sunapee, N.H. "We will put in more than 1 million square feet up there. We have a lot of areas where we need erosion control," he said.

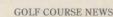
According to Devane, the technology makes it much easier to use seed instead of sod on sloped areas

"Seed is better than sod to begin with," he said. "But the old hydroseeding wouldn't hold the turf. This stuff holds excellently.'

Ty Butler, vice president and project designer for Robert Trent Jones, has also had success with EcoAegis but noted that some developers are still more comfortable with sod.

Butler used the product at Greenhorn Creek in Angels Camp, Calif. and is going to use it in some areas at Charter Oak Country Club in Hudson, Mass.

'We rebuilt four greens at Green Horne," said Butler. "We did the surrounds, bunkers and Continued on next page





Hydrograssing near the 10th green at Blackstone National GC in Sutton, Mass.



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On the Green

220-A Walk Behind Greens Mower and then installed a bracket that came with the sulky," said Miller. Then they modified the Deere sulky to go behind the walk-behind mowers.

The sulky comes with an attachment bracket made out of 1/4-inch-thick angle iron that is 12 inches long, with a hitch pin in the center. On either side of the hitch pin there are two holes.

With a magic marker, Miller and Muckelvaney marked a straight line 1/2-inch long on the outside of the holes used to mount the attachment bracket, then took a die grinder with a cutting wheel and took off the excess, making the attachment bracket 5 inches long. They then marked the two holes and drilled them into the mower frame with a 5/16-inch drill bit, then took a 3/8 x 16 tap and threaded the holes, used 3/8-3/4 bolts with a lock washer and locktightened them down.

Miller said the kick-stand should then be re-mounted immediately next to the sulky attachment bracket, slightly to the right, drilling through the same two holes on the kick-stand mounting bracket into the mower frame and mounting them in a similar fashion.

"The kick-stand will be slightly right of center but will still work easily and efficiently," Miller said.

"Our sulkies work so well that our other three resort courses on Kiawah Island and our fourth course - which is close by on an adjacent island - are also using

Hydrograss Continued from previous page

fairways with EcoAegis. We had a storm and it held up and germinated faster than conventional seeding.

"At Charter Oaks, we will use it around sloped areas and in the roughs, but the owner still wants to use sod on bunkers and green surrounds."

Arello is still trying to combat the image of hydroseeding and regularly performs tests for courses.

"It takes a while for people to believe in these products," he said. "Until they see that it works well, they won't use it."

Arello is also working on product development with Canfor and the University of Arkansas.

"We are doing work right now with sprigs at the University of Arkansas," he said.

Initial indications point to success. "It keeps the moisture in, prevents the sprig from drying out, and the mortality rate decreases dramatically," said Arello. "If it comes together, we'll have a winner, because you can use it down South." them with great pride and heightened enthusiasm," Miller said.

Osprey Point does not have a lot of elevation change, and the few hills it has do not affect the braking of the greens mower and sulky. The engine and transport mechanism do all the necessary braking in a safe and efficient manner, he said.

"Our employees really like using our greens mowers with sulkies," Miller added. "They have become more efficient in their transporting between all areas of the course and it has saved the course a lot of money in acquiring additional turf vehicles. And the remaining turf vehicles can be used by other employees. We do not have to have two employees riding together as much as before, which sometimes is not as productive."

HARBOUR RIDGE EARNS AUDUBON DESIGNATION

PALM CITY, Fla. — Harbour Ridge Yacht & Country Club has achieved designation as a Certified Audubon Cooperative Sanctuary by the Audubon Cooperative Sanctuary System (ACSS), the educational division of Audubon International. Harbour Ridge is the 31st course in Florida and the 216th in the world to receive the honor. The facility's courses are cared for by Tim Cann, director of golf course maintenance since 1992 and a member of Golf Course Superintendents Association of America.

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BRIEFS



WORLDWIDE ARCHITECTS GROUPS TO MEET

ST. ANDREWS, Scotland - The British Institute of Golf Course Architects will mark the new century by returning to the Home of Golf for its International Conference, Sept. 27-29. A three-day program is planned at The Old Course Hotel here and the event will bring together the world's golf course architects in a global congress of golf course design. It is anticipated that not only will the Institute, shortly to include the Continental European groups in a newly merged organization to be known as the European Institute, but also members of the Society of Australian Golf Course Architects, and the American and the Japanese societies of golf course architects will take part. It is hoped that many other architects from around the world, together with representatives of the golf industry and allied fields, will join the unique celebration of the profession in St. Andrews. The conference is being supported by the Toro Co. and Barenbrug Co.

RAMSY JOINS GOLFPLAN

Golfplan, Fream and Dale, recently hired Kevin Ramsy as senior golf course architect. Ramsy was previously a senior designer with J. Michael Poellot Golf Design Group and Director of Golf Design with Walter Raleigh Stewart. Currently Ramsy is working on the Serapong Golf Course at Sentosa Golf Club in Singapore, Barbarosa Golf Club in Texas and Yong Pyong Golf Club in Korea. He brings 11 years of golf course design experience to Golfplan.

BOULDER POINTE GC OPENS

......

OXFORD, Mich - The Boulder Pointe Golf Club & Conference Center, a 27-hole layout designed by Conroy-Dewling Associates, Inc., opened here June 1. The three nines -The Dunes, The Peaks and The Bluffs - weave in, around and through a former gravel and sand mining quarry. "There are places along the Peaks course that you would swear are in a desert in the American Southwest,' said developer Jim Dewling. Each hole features five sets of tees to accomodate all skill levels. The high-end, total service facility provides a players' bar and grill, a club cleaning service, and a PGA professional staffed golf shop. All carts feature the Proshot Global Positioning System. GOLF COURSE NEWS

Architect Bill Love takes environmental honors



The Turf and Ornamental Communicators Association (TOCA) has named Bill Love the winner of its Environmental Communicator of the Year Award. The presentation took place at TOCA's annual meeting, held recently in Boston.

TOCA is an association of editors, writers, public relations practitioners and others involved in green industry communications. The group honored Love for his work as primary writer and editor of a publication dealing with environmental sensitivity in golf course design and development.



The four-color book – "An Environmental Approach to Golf Course Development" – consists mainly of illustrated case studies of courses built with special challenges in such issues as shoreline protection, historical preservation, wildlife habitat, and water quality. It was published last year by the American Society of Golf Course Architects. Love's first version, with the same title, appeared in 1992.

President of W.R. Love Golf Course Architecture, in College Park, Md., Love has designed about 25 courses. Since 1990, he has chaired the Environmental Committee of the ASGCA. Editor Jay Finegan caught up with him at the TOCA meeting.

Golf Course News: What's the significance of your book in light of today's regulatory atmosphere?



AN ENVIRONMENTAL APPROACH TO GOLF COURSE DEVELOPMENT

The cover from Love's book, which helped him win the TOCA award.

Love: All golf course architects have to be attuned to environmental issues, because they crop up on every single project that we do now. To design a course in ignorance of environmental concerns is just shooting yourself in the foot. If the regulatory review process doesn't catch up with you, then the inefficiency of the golf course will. If you're building in conditioning problems or operational problems, then the superintendent has to **Continued on page 22**

XBRIDGE, Ontario, Canada — A handful of National

Hockey League players is among the owners of an

upscale daily-fee course that held its grand opening

Wooden Sticks Golf Club - named after the hockey

Twelve of the 18 holes, Garl said, have been "inspired' by

'It is a true member-for-a-day course," Garl said of the

some of the world's best-known layouts, including St.

facility. "It costs \$175 to play, but that includes your golf,

cart, range balls, food and drink - everything but alcohol."

course are Gary Roberts of the Carolina Hurricanes, Joe

Nieuwendyk of the Dallas Stars, and former Hurricane Steve

Rice. Other investors, Garl said, include local Toro and E-Z-

GO distributor Turf Care Canada. Greg Seeman and Alan

Construction began in January 1998. The course held a

soft opening last summer with about 2,000 rounds played

before winter. "We spent a long time looking for the right

site," Garl said. "We caught a good winter and had good soils

Among the National Hockey Leaguers involved in the

May 1 roughly 45 minutes northeast of Toronto.

Andrews, Pine Valley and Augusta National.

equipment — is a Ron Garl design.

Chud are the managing partners.

Garl's Wooden Sticks set for opening face-off in Canada

By PETER BLAIS



The 17th hole at Wooden Sticks.

New Colorado layout aims for rustic flavor

By DENNIS LYON

AURORA, Colo. – Murphy Creek, the city of Aurora's latest addition, will open this July. The 7,457-yard course, with multiple tees, was designed by Ken Kavanaugh of Tucson, Ariz.

Kavanaugh and the project team's goal was to provide a golf experience that surrounds the player with great golf and nostalgia. The clubhouse complex creates the feel of the old family farm from the 1920s. The steel-wheeled antique farm implements scattered throughout the course, for instance, remind the golfer of the hard times the eastern plains experi-**Continued on page 21**



Murphy Creek, a new Ken Kavanaugh design near Denver.

Continued on page 23





A model of a proposed resort in Lebanon planned by G&G Hauser of Austria.

Austrian Hauser brothers eye Lebanese golf projects

BEIRUT, Lebanon — Austrian golf course architects Gerold and Gunter Hauser are performing feasibility studies for the first public golf courses in Lebanon.

Three new resorts have hired the brothers for the work, as many hope for a boom in tourism, recreation and sports centers after many years in which

OD^oTHOUGH^t

Lebanon has been embroiled in war between political and religious parties and unfriendly neighbors.

In recent times, a relative peace has descended and an attempt at normality is underway in the country once known as the "Switzerland of the Middle East." Beaches, historic cities

Here's some

In recent times, a relative peace has descended and an attempt at normality is underway in the country once known as the "Switzerland of the Middle East."

like Byblos and Baalbek (where more than 16 cultures from the Phoenicians to Romans are registered), snow-capped mountains and ski resorts speckle this country where the famous cedar of Lebanon grows everywhere.

Currently, the only golf course is near Beirut airport and is strictly private. High fees make golf unaffordable for most of the inhabitants and even the tourists.

"Within the year of 2000 there will be built at least three golf schools, driving ranges, par-3 courses and putting ranges," predicted Gerold Hauser.

...

Closer to home for the Hausers is former train factory Wr. Neustadt near Vienna, Austria, which is set to become the home of an innovative golf center.

"It will be the first indoor ninehole course in the world and will include a shopping mall with golf stores, exhibition booths and experts offices," said Gunther Hauser.

The factory is the former RAX-Werke. During World War II, it was a factory for jets and rockets. After the war, trains, ships and wagons were made in this structure. It contains more than 30,000 square feet of space, spanning 300 meters in length by 100 meters in width and reaching 28 meters high.

"This hall is really amazing," Gunther said. "Every hole of the par-3 course should be built in a recognizable style, from American to Australian, from African to Asian, and finally to European."

Outdoors will be a golf school, with driving range, chipping and putting areas and a putting course. This last will include Zielgolf, a worldwide patent of G&G Hauser, as well as a miniadventure golf course for children, a putting course for handicapped people and a low-budget hotel with 200 beds.

Start of the planning is complete and construction will start 2001, with parts of Golf World scheduled to be opened in 2002 and 2003.

The owner of the project, Christian Blazek, is trying to find companies to take part in several workshops. Interested parties should call 43-2672-83979-17 or send email: blazek@magnet.at.



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Natural & Organic Fertilizers



Muirhead lays hands to Dubai golf project

By, JOHN TORSIELLO

The desert of Dubai, located on the right flank of the Mideast's Arabian Peninsula, is the natural pallet on which noted golf course architect Desmond Muirhead has created another of his innovative layouts.

Muirhead, whose course designs at times approach the ethereal, is in the finishing stages of his latest jewel, Emirates Hills, an 18-hole layout that will be ready for play this year. It will be the future site for the Dubai Desert Classic, a stop on the European PGA Tour. Eventually, there will be four courses at Emirates Hills. They will be fulllength courses capable of hosting a PGA tournament. European PGA star Colin Montgomerie is on board as the celebrity endorser of the course.

The Emirates Hills course is the centerpiece of an ambitious master plan, also prepared by Muirhead, that calls for residential homes, a town center, schools, business districts, nongolf recreation and leisure activity venues, and support facilities.

Among Muirhead's previous works are Muirfield Village Golf Club (along with Jack Nicklaus) in Dublin, Ohio, Mission Hills in Palm Springs, California, and the almost surrealistic Imperial Golf Club in Jakarta, Indonesia, where some of the holes can legitimately be described as landscape art.

Emirates Hills is another of the Englishman's unique course creations. He has called the Dubai layout a course that will "stimulate the imagination and elevate the golfer to the pinnacle of his game."

Creating a lush golf course is no mean feat in the parched country of Dubai. "But there was no shortage of sand," Muirhead said with a laugh during a recent interview." The course is 100 percent irrigated and most of the trees, shrubs, and flowers were imported.

Muirhead said, "Dubai is part of the United Arab Emirates and is an extremely wealthy country. There is no shortage of anything. The Arabs can get what they want so there was no problem with developing the course as we wanted. The most difficult problem is always water. Most of what there is comes from distillation. To maintain a golf course in a desert you need a million gallons of water every day.

Muirhead called the Dubai course "interesting work," and said that creating a brand new community around the golf courses excites his creativity and draws on his knowledge and understanding of urban planning.

"The homes (which will be between 10,000 and 20,000 square feet in size) will be selling for millions of dollars apiece," he said. "The residences will be built to mesh with the golf course '

Muirhead said it will take about 10 years to complete the entire development.

The Emirates Hills golf course project alone cost \$25 million and a large, extravagant clubhouse that has yet to be built is expected to cost upwards of \$50 million. The total project will eventually cost over \$8 billion, he said.

Muirhead said the Dubai project has been one of his more demanding. He has been working on it for almost two years, necessitating 18-hour flights between his California and Dubai offices

Building a golf course in a desert is not for the faint of heart.

"The weather is bloody awful at times," Muirhead said. "The winters are extremely nice, something like Florida only hotter. But the summer is very difficult, 100 degrees or more with 80 percent humidity. It makes work progress very slowly at times.

Muirhead said the citizens of Dubai have become enamored with the game of golf.

"There are three other courses in Dubai of tournament caliber and there are more and more Arabs who can afford to play Continued on page 37



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AGENT

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NEW

Shenzen Golf Club

Shenzen Golf Club wraps up renovation work

By ANDREW OVERBECK

SHENZEN, China - After more than 30 months of work, Global Golf Engineering, Ltd. (GGE) is wrapping up the Robin Nelson and Neil Haworth redesign of all 27 holes at Shenzen Golf Club (SGC) here.

The course has been transformed from a flat, featureless track to a modern, more challenging layout. Japan's Isao Aoki designed the first 18 holes, which opened in 1985, and Hong Kong's Tang Shu Chen designed the final nine that opened in 1990.

"The main design philosophy was not to limit ourselves by the existing course," said Haworth. "We looked at it as a whole new site

where we would keep all the trees. "As a result, the routing of the holes is almost unrecognizable from the original. We made it a more dramatic course through the use of lakes and bunkers.'

While the existing tree line provided instant character and landscaping, fitting the new course in amongst the trees proved to be a challenge.

"Tying the course into existing tree areas and making it look as natural as possible was important," said GGE Director Stephen Alexander. "The hard part was not damaging the root zones and keeping construction and earthworks outside the driplines of the trees."

Additionally, GGE transplanted trees which were hidden in densely planted areas or ones which needed to be moved because of the re-direction of a hole. "There were a lot of nice old

fig trees that were on site, but that were not noticeable. We moved these trees to areas to help landscape the newly renovated holes," said Alexander.

Club management also insisted that 18 holes of the layout be open at all times during the renovation work.

"The most challenging part of the design was keeping 18 holes open. That took a lot of planning to keep from compromising design or construction," said Haworth.

GGE worked closely with SGC management and outside contractors to help the project run smoothly.

"The key was good cooperation," said Alexander. "The important thing about working in China is to foresee and avoid problems. For example, we had the club purchase new bulldozers so that we would not have any time lost due to machinery downtime."

Improving the course's water supply and irrigation system was another formidable task.

"One of the largest problems was a lack of irrigation water storage. In addition to adding more lakes, we have made sure that the course drains into the lakes to improve storage," said Alexander.

Hong Kong-based Bothgreat Technology Ltd. installed a new irrigation system and GGE upgraded the existing drainage system.

The native turf has also been replaced with Paspalum on the fairways, tees and rough and Tifdwarf on the greens and aprons.

Construction on the final nine holes began in October and the entire 27-hole layout is due to be open for play in August.

"This may be our best effort to date," said Haworth. "The old course was just long, with not much thought required as to where to drive the ball or where to lay up. The new course is just as long, but more strategic."

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SUPERINTENDENTS MUST ADAPT RATES TO INDIVIDUAL GOLF COURSE CONDITIONS

20 June 2000

Building ongoing throughout Asia

Work is underway on numerous fronts throughout the Asia Pacific region. Among the projects are:

CAMBODIA

• KAMPONG CHNANG — Initial planning is underway for the first 18 holes of a 36-hole Ross C. Watson-designed course to be developed as a part of a new 50,000-acre city development.

CHINA

• SHANGHAI — Nine holes of the Thomson, Wolveridge and Perrett-designed Bin Hai Golf Club are open for play. The final nine holes are being grassed with Legend Bermudagrass from Australia on the tees, fairways and rough, Penn A1 on the greens and sheeps fescue on the mounds. Course Superintendent Gary Chatfield expects the course to open in early July.

Murphy Creek Continued from page 17

enced during the dust bowl era. The cart storage building will remind a Midwestern babyboomer of his grandfather's old dairy barn. And the silo next to the driving range tee provides a unique place to pick-up range balls.

The golfer's plaza, between the clubhouse and the cart barn, is the site of a special public art project that proposes to create a gathering of golf's historic icons. The first pieces include life-size sculptures of the female athlete of the century, Mildred (Babe) Dedrickson Zaharies, in full back swing, and legendary greenkeeper Old Tom Morris waiting his turn to tee off. These pieces, over time, will be joined by life-size sculptures of Ben Hogan, amateur golfer Bobby Jones, a typical caddy from the 1920s, and course architect Donald Ross. This assemblage will be known as A Quintessential Gathering.

Out on the course, the golfer is greeted on each hole with large landing areas, sand bunkers that require strategic play, and generous greens. The golfer will also experience water, wildlife and wind. Murphy Creek, the actual stream, meanders through the terrain. It borders six holes, with its 75-year-old cottonwoods adding visual appeal.

"There's no redundancy at Murphy Creek Golf Course,' says Ken Kavanaugh. "Each hole possesses a unique challenge, character and charisma."

Dennis Lyon is Manager of Golf for the City of Aurora and a past president of the Golf Course Superintendants Association of America.



MALAYSIA • PENANG - Initial construction work has been completed on four Ross C. Watson-redesigned holes at Penang Turf Club. The new layout, which had to be altered to allow for an expanded horse stable, will open in July. PHILIPPINES

• LAKE TAAL — The Splendido

Golf Club, developed by Manilabased JAKA Group, has gotten the go-ahead from Greg Norman's design team to finish the remaining work on the course. The back nine is already open for play and bunker work and grassing is now progressing on the front nine.

VIETNAM

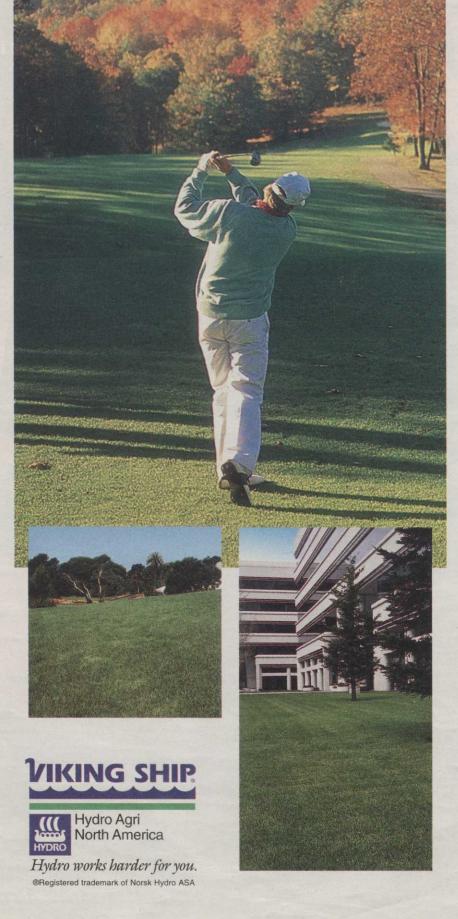
• DANANG - Hong Kongbased developer Lai Sun has signed a contract to develop 30

hectares of land adjacent to the Furama Resort Danang. In addition to constructing a golf course and other leisure facilities on the property, Lai Sun will add another 200 hotel rooms. Work on the recreational facilities and beachfront restaurant is already underway.

 HO CHI MINH CITY — Two sports complex facilities that include golf course components have received approval from local and national agencies.

The Ministry of Planning and Investment has granted a license to Sing Viet Co. Ltd. to construct a U.S.\$120 million sports, tourist, commercial and residential complex in Lang Le, Binh Chahn District. Saigon Tourist and HCMC Parks and Greenery Co. have been given the go-ahead to build a sports complex in Gai Dinh Park near Tan Son Nhat Airport.

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Bill Love

Continued from page 17 overcome something that wasn't done properly to begin with, and will require extra time and money.

We always have environmental consultants as part of the team on a job. Getting a golf course built these days is very much a team effort, requiring engineers, land planners, sometimes even zoning lawyers. There's a whole slew of people that get involved.

GCN: How would you characterize the regulatory climate today versus 10 years ago?

Love: You now go through a more refined process. And today it spans all jurisdictions, whereas before there were still parts of the country where you didn't deal with as many layers of regulatory review. Back then, you might have dealt only at the federal level. Now you will deal with organizations at the federal, state and county level, and sometimes you deal with a local community group or a local environmental board.

GCN: How have golf course developers responded to tighter environmental controls?

Love: A decade ago, we had not amassed the database and enough scientific evidence to prove we can develop a course in an environmentally compatible manner. Proper application of certain fertilizers, pesticides and so forth can be done without having a negative impact on the environment. The data we have in hand now, from the United States Golf Association's Green Section and the Golf Course Superintendents Association of America, show that when those things are done properly, it's very controllable. I don't like to even imply that there's a chance of contamination unless it's a question of flat-out mismanagement.

But anytime we go in to discuss doing a new course, there usually are a couple of key issues that pop up. One is, people don't want to see loss of sensitive areas, like wetlands or habitat. And then there's water quality, whether it's intrusion of chemicals into the water supply, or runoff into the surface-water supply, or even the impact of irrigation on existing water supplies.

Sometimes there's objection to development of any kind, whether it's houses or a golf course. You're talking about 200 acres that either gets built on or doesn't get built on. I make the argument that a golf course can qualify as open space.

GCN: Do you advocate any special strategies in dealing with environmental agencies?

Love: We focus our attention on communication. We try to be proactive. We want to get the regulatory people involved early, so they have a better understanding of what we're trying to do. You can't just walk in and slap your paperwork on the desk and say, 'Here it is. We think it should be approved.' We try to work with them because they can provide valuable input. They're going to know exactly what the most important issues are at that site, because they're the ones who are out there regulating in that region. So you can cut right to the

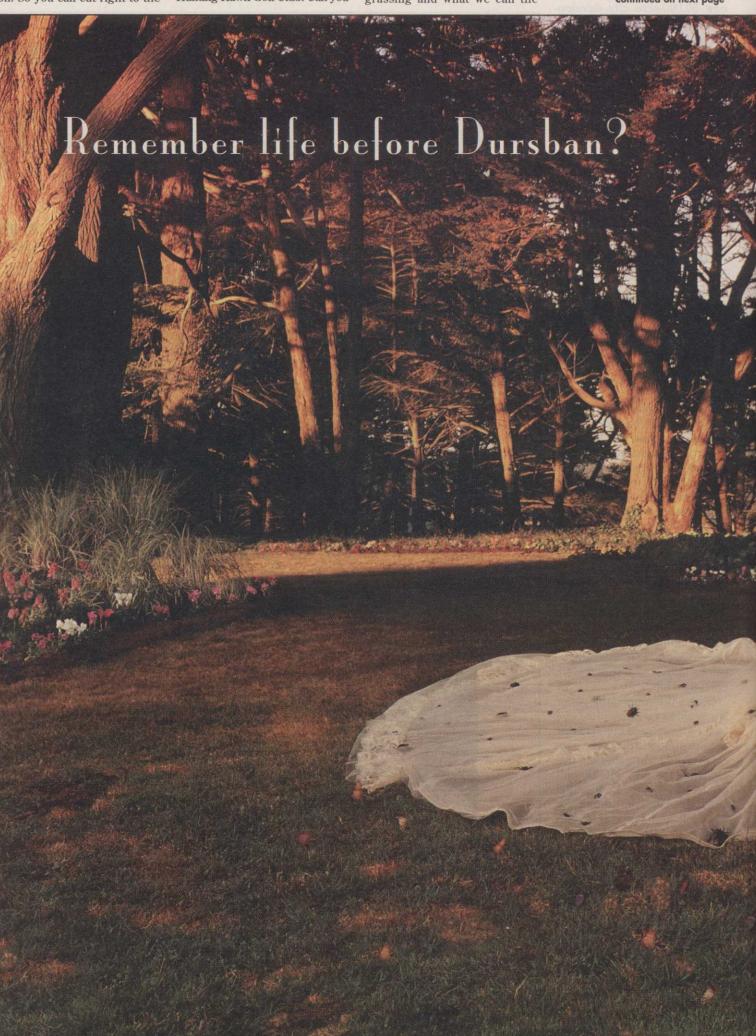


chase when you meet with them. If you understand the issues and incorporate them into your design process, you don't run into a lot of frustration. These agencies are there for a reason. They aren't there to single out golf development. This applies across the board.

GCN: Right now you're developing a course in Richmond, Va. – Hunting Hawk Golf Club. Can you We want to get the regulatory people involved early, so they have a better understanding of what we're trying to do.'

describe the steps you're taking to make it environmentally friendly?

Love: We're in the process of grassing that course right now. Part of what happens during the grassing and what we call the establishment or growing phase, is that we'll start doing all of our environmental enhancement. In some areas we're planting aquatic vegetation. We're also **Continued on next page**





Bill Love

Continued from previous page vegetating the site with understory material to promote habitat and to supply visual quality.

We've also taken a lot of areas out of maintenance. We've reduced the amount of irrigated and highly maintained turfgrass. In order to make that successful, we have this ascetic layering of the course, where you have the highly

maintained areas - the playing areas - and then you go into the more native types of grasses, and then into the larger plant material, which not only looks good but also requires practically no maintenance. It's not maintenance-free, but it's very low.

GCN: Can the right kind of course design revitalize the animal population?

Love: Part of what we do in

the analysis phase is study the types of wildlife that existed on the site prior to the project, or what wildlife is suitable or desirable for that area. If the site had been mismanaged in the past, sometimes the wildlife isn't there. Very often we'll get a site and it's not a virgin stand of timber. This particular site in Richmond [Hunting Hawk] had been cut over for timber, and it had a mono-stand of pines left on it when they got done. Part of our program is to bring back some hardwoods. We know that by reintroducing certain types of plant material and things like hedgerows and forest-edge conditions, we can introduce a much wider spectrum of wildlife habitat and enhance the site from that standpoint.

GCN: New golf courses are

opening at a record level in the United States - about 500 a year. But the number of golfers has hit a plateau at about 26 million. Two questions: Can this rate be sustained, and how do you bring in more players?

Love: Everything we see in our side of the industry indicates that the growth of the game is still there. When you talk about the number of players leveling off, you also need to look at how much pent-up demand there was. How many times have you had to wait two hours for a tee time, or you couldn't even get one because it was too crowded? I think there's a lot of that out there now, so many of the courses being developed are sort of catching up to that demand. I don't see how, with the popularity of the game as it is today, the number of golfers won't increase - especially if we're able to provide more affordable golf. That's a very key thing.

GCN: And how do you make it more affordable?

Love: Well, it gets back into design. I don't want to make it sound like everything begins with design, but it sort of does. The overhead cost of maintenance and other operating costs - if you can drive them down, you can charge a lower green fee. When you design a course so the operating costs are lower, you can survive a lower fee, and thus be attractive to a greater number of people.

Wooden Sticks

Continued from page 17

to work with."

Gateman Milloy of Kitchener, Ontario, which built nearby Devil's Pulpit and Devil's Paintbrush, was the construction firm.

Greens, tees and fairways are planted in bentgrass, with a mixture of bluegrass, fescues and rvegrass in the roughs.

There was a stream flowing through the property we had to work with," Garl said, when asked about environmental concerns during construction. "There is a well that pumps into the lake."

While the developers had to go through the environmental review process to obtain permits, Garl said: "One of the refreshing things about Canada [environmental agencies] is that they are tough, like everywhere, but the people are more concerned and interested [about the site] than most places. They listen to you. They want to know why you're doing this, how you're doing this, and is it the best way. They want to know if you're doing the best thing for the environment, not just meeting the law.

"It's not a case of 'We're going to show you how tough we can be on you,' or 'We'll slow you down as much as we can.' They want to do the best they can for that piece of property."

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golf leagues," said Smith, who managed the on-site work. "They all just got together, out of frustration, and decided to build their own course. It had been a dream of theirs for years."

The difficulty of obtaining starting times at public courses in Westchester and Dutchess counties sparked the move by IGA. When new president Phil O'Meara came on board in 1996, he led a campaign to find a suitable piece of land, sell memberships, and build a semi-private course. Under the plan, members would have tee-time priority and the general public would be welcome. "We all agreed to try this, and it has worked out," O'Meara said. "We now have a golf course." Some 500 IGA members pur-

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chased shares ranging from \$10,000 to \$13,000 each, raising about \$5 million. O'Meara hired the L.A. Group, of Saratoga Springs, N.Y., to find the land and handle permitting issues, and selected Stephen Kay Golf Course Architects, of Bronxville, N.Y., to design the layout. The 200 acres IGA purchased – part of a working dairy farm until then – are just outside of Poughkeepsie. The maintenance building sits where cattle pens once stood, and two grain silos were kept to add character.

"When the architect saw the land, he said it would be an ideal spot for a links-style course," O'Meara said. "It's a wide-open piece of rolling terrain, with few trees and with quite a breeze most of the time. You're hitting over a big pond on one hole and alongside a stream on another, and on four or five holes you're hitting over some wetlands."

O'Meara said the combined cost of the real estate and the construction came in at around \$3.5 million, including irrigation but not counting the cost of the clubhouse, which isn't yet finished.

"We did it very inexpensively," said architect Smith. "Our office is only an hour away, and we had already done The Links of North Dakota, so we knew what the heck we were doing – we had a model. They got a lot for what they paid. Looking at the course, you'd assume their budget was twice what it was."

Head professional Ciaran Carr, who came here from Myrtle Beach, S.C., said the course is strongly reminiscent of his "home course" in Ireland – Baltray, also called the County Lough Golf Club.

"I've been in America for 15 years, and I've seen a lot of socalled links-style courses over here," he said. "Although they might be in great condition, with nice layouts, they don't remind you much of Ireland. With this course, if I could take away the Catskills and put the Irish Sea there, I'd be at home again. It really is like having a wee bit of Ireland in Dutchess County. And a lot of the members have moved here from Ireland, so you hear all the different brogues."

At just over 7,000 yards from the back tees, the Links at Union Vale has respectable length. "There are no blind shots – that's the only difference from our courses at home," Carr said. "It's a liability issue."

Fairways average 45 yards wide, slightly above the norm, to give players a fighting chance of hitting the short stuff despite the wind. "Given the wind and the changing conditions, it's a course that people can play every day and not see the same course twice," Carr said. "Although there are flat lies, you also have shots playing from downhill and uphill lies. You'll get a lot of different looks. We're trying to make it a true links course, with Chris Strehl, our superintendent, where you can actually bump and run the ball up to the greens, where there are openings and you don't have to always fly over bunkers."

The layout, he said, offers plenty of challenge. "After the short rough comes the high fescue – the Shinnecock look. That's when you might think you're back in Ireland or Scotland, because good luck, my friend, trying to find a ball that you fire into that stuff. You will go through some golf balls here."

O'Meara said greens fees will be in line with courses in the area – \$33 during the week and \$47 on weekends.

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BRIEFS



E-Z-GO STRIKES DEALS WITH AGC, CLUBCORP

AUGUSTA, Ga. - E-Z-GO Textron has extended its multi-year agreement with American Golf Corporation, operator of more than 320 private, resort and daily-fee



golf courses and practice centers worldwide. The Augusta-based manufacturer has also entered a

multi-year agreement to supply golf cars and utility vehicles to ClubCorp's 220 properties.

FAMILY GOLF WOES

MELVILLE, N.Y. - Family Golf Centers (FGC) received notices of default from its lenders under its \$130 million credit facility and under its Bank of America loan agreement for its failure to make monthly interest payments due on May 1. As a result, the lenders accelerated FGC's obligations requiring all amounts outstanding now be immediately due and payable. NASDAQ announced that its trading halt status in Family Golf Centers was changed to "additional information requested" from the company.

SERVISCAPE ADDS ILL. LAYOUT

NEW LENOX, Ill. - The Board of Commissioners of the New Lenox Community Park District has contracted ServiScape, Inc. to manage all operations and long-range planning at

The Sanctuary Golf Course. The Sanctuary is an 18hole championship course with practice range and fullservice clubhouse



including pro-shop, restaurant and bar. The course was designed by Steven Halberg and opened for play in the summer of 1996.

LEEKE NAMED NGCOA TREASURER

MONTAGUE, Mich. - Golf course owner Meriam Leeke has been elected



treasurer of the National Golf Course Owners Association. Representing Old Channel Trail Golf Course, located north of Montague and

Whitehall on the

Lake Michigan shoreline, Leeke was re-elected to the board. GOLF COURSE NEWS

Portuguese course committed to environment

CARVOEIRO, Portugal - The Vale da Pinta and Gramacho golf courses here on the Portuguese Algarve, are busy reaffirming and developing their environmental program. This program is an integrated management plan that associates the golf purposes with the environment purposes.

Underlying this initiative is the stated principle that 'Golf can be an example for a good environmental practice', and Carvoeiro golf operators are embracing this principle with the view that both sporting performance and environmental management can go hand in hand.

The four 'cornerstones' of Carvoeiro are:

 Correct management — Adopting the best management practices for golf courses which are sub-sectioned into establishing the purpose, identifying the responsible persons, and evaluating results.

· Acting according to the law - both national and European.

· Protect the biological diversity - maximizing the golf courses ecological potential

· Communication and education - ensuring that employees, associates and customers understand the environmental attitude, policies and practices.



Caroveiro Golf Club in Portugal is "Committed to Green.

This individual program is being developed by Eng. Miguel Grosso along with course director Jose Matias and greenkeeper Joaquim Costa.

Following closely the 'Committed to Green' program is the 'Green Globe' program, which is based on recommendations from Agenda 21 from the earth conference held in Rio de Janeiro in June 1992

Specifically, Carvoeiro Golf has initiated a number of management practices

Golf industry veteran Burress retires

Former builder, super plans to open own consulting firm MELBOURNE,



Fla. - Saying "golf has really been good to me and an exciting adventure," Eugene Burress is retiring as manager of golf operations for the Brevard County Parks and Recreation

Department and its three courses.

"It's been a great near-40 years in the golf business and 54 years playing the game," said the 67-year-old Burress, whose credentials include being a founding member of the U.S. Golf Association's (USGA) Public Golf Committee and serving on its Public Links Championship Committee for 10 years.

Burress was a golf professional, a certified golf course superintendent and built 14 golf courses, personally designing or redesigning eight courses and working with architects Michael Hurdzan, Jack Kidwell, Arthur Hills and Charles Ankrom.

After 20 years in the U.S. Air Force as a golf professional and superintendent, he supervised Cincinnati's seven golf courses from 1973 to 1991 when he took over as general manager of the 27-hole Cocoa Beach (Fla.) Country Club, supervising construction of a new 18-hole course and clubhouse. After two years as a consultant, he went to work for Brevard County.

He was executive director of the Ohio-Kentucky-Indiana Golf Association from 1981-90, a public golf advisor to the Greater Cincinnati Golfers Association from 1982-90 and a trustee to the Ohio Turfgrass Foundation from 1978-79.

The Cincinnati native won state superintendent golf championships in Florida in 1973 and Ohio in 1975, and qualified for the 1982 USGA Public Links Championship.

Burress left his position May 31 and opened Gene Burress Golf Consulting Services.

ClubCorp capitalizes on Pinehurst

ALLAS - ClubCorp has formed The Pinehurst Co. to replace what was formerly known as ClubCorp Resorts.

The new division was crated to leverage the worldwide recognition of ClubCorp's flagship golf destination, Pinehurst (N.C.) Golf & Country Club . The Pinehurst Co. will include Pinehurst (site of the 1999 and 2005 U.S. Open Championships); Barton Creek in Austin, Texas; Daufuskie Island, S.C.; The Homestead in Hot Springs, Va.; and Palmilla in Los Cabos, Mexico.

The formation of this new company acknowledges the importance of our worldclass golf resorts and helps us to direct the strategic growth of the company," said ClubCorp President and Chief Executive Officer Robert Dedman Jr.

The Pinehurst Co. will also include the Golf Institute, certain designated corporate clubs, and retail and resort realty divisions. The Pinehurst Co. has a real-estate development division, which has formed an alliance with Charlotte, N.C.-based Celebration Associates LLC. Celebration Associates is involved with the Pinehurst Co. in pursuing real-estate opportunities at the company's existing resort locations.

GolfMatrix acquires GolfSouth portfolio

such as: inkpot and toner cartridges to be

refilled and reused, pesticides to be used

as 'correctives' rather than 'preventatives',

machine oil to be recycled via a specialist

company, paper to be recycled along with

other packaging such as fertilizer and

pesticide containers. Initiated in March

was an agreement with the Algarve Uni-

versity to offer three students work place-

ments which will involve the study and

cataloguing of the flora and fauna on the

SCOTTSDALE, Ariz. - GolfMatrix has acquired GolfSouth L.L.C., and its varying golf course ownership interests

The 14-course portfolio is located throughout the Mid-Atlantic and



golf courses.

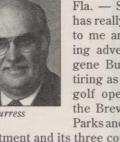
Southeast. The acquisition calls for GolfMatrix to purchase all shareholder interests in GolfSouth L.L.C., and re-

lated entities, including GolfSouth Management, GolfSouth Clubs, GolfSouth Capital and GS Communities. The deal also includes retiring GolfSouth's debt with ClubLink Corporation.

The acquisition will immediately position GolfMatrix as a major company in the golf acquisition, management and development industry.

"This is the first step toward achieving our goal of establishing a national company with over 50 facilities in the next five years" said Deron Bocks, president of corporate operations at GolfMatrix. "When we founded the company, we targeted the Mid-Atlantic, Southwest, and Northern Midwest as our primary areas of focus for future growth. This acquisition provided us an excellent platform for future growth as well as a tremendous opportunity to establish ourselves as a dominant player in one of our key geographic regions."

The portfolio of courses stretches Continued on page 29





Retaining key personnel with deferred compensation

In today's environment, when key personnel are raided by other clubs, restaurants and resorts, officers and directors must consider the adequacy of benefit packages. Compensation and perquisites must not only be competitive, but can also serve as "golden handcuffs" to key employees for a desired period of time. Faced with the proposition of losing general managers and others to competitors, some clubs have decided to dangle a carrot to provide some assurance of retention.

Many clubs provide standard benefits; a major sweetener that helps induce management to stay at the club is a non-qualified, funded deferred compensation plan.

Unlike more typical qualified plans such as 401(k), profit sharing, and pension plans, non-qualified plans are less restric-

tive and can be limited to key personnel without participation by all employees. These plans can provide supplemental retirement, disability and death benefits as well.

Typically, the club agrees to pay the key employee upon termination of service or upon retirement either a fixed sum, an amount based upon the employee's years of service and compensation, or a slated percentage of the employee's "high five," "high three," or career average salary. Alternatively, the club can agree to set aside fixed amounts on a periodic basis as deferred compensation and allow the employee to designate how the funds are invested.

Deferred compensation plans can be unfunded — the club contractually agrees to provide the benefit at the conclusion of the agreed time. Funded plans may give the employee

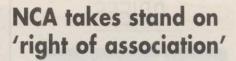
more emotional security, but such plans require that transferred property for the employee's benefit be subject to a "substantial risk of forfeiture" or the amounts transferred will be currently taxed.

For example, some agreements provide that the employee's right to receive deferred compensation payments will be conditioned upon the employee's agreement to work for a specified amount of years or until retirement, to render consulting services after retirement, or to refrain from working in a competitive club. Forfeiture can occur if the employee voluntarily terminates before the end of the plan's

term or if he or she is terminated as the result of an act of dishonesty that causes financial loss or damage to the club. NCA offers a deferred compensation plan through Legg Mason Wood Walker. For more information, contact them at 1-

401(k) and other qualified plans are unlikely to completely meet the needs of highly compensated club personnel. Therefore, non-qualified plans are likely to play a greater role in key employee retirement planning in coming years.

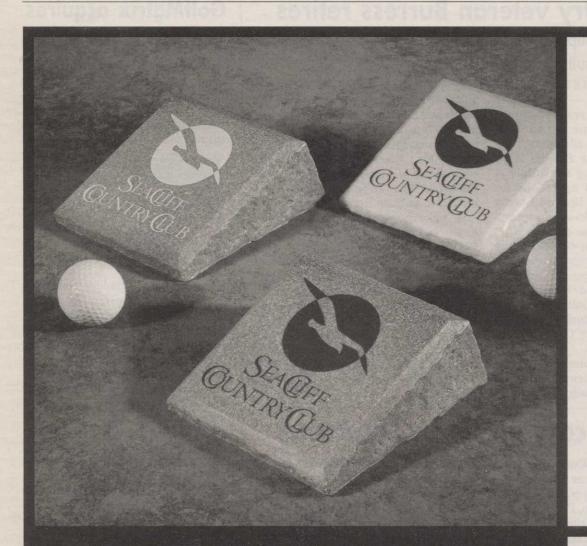
Douglas C. Miller, CPA/ABV, is managing partner and founder of Miller Haviland Ketter PC, PA, a CPA firm in Westwood, Kansas. This article appeared in the March 2000 The Clubhouse newsletter. It is reprinted with permission of the National Club Association; Copyright 2000; all rights reserved.



WASHINGTON - The National Club Association (NCA), along with the California State Club Association (CSCA), has filed an amicus brief with the U.S. Supreme Court on a significant right-ofassociation case.

The case, Boy Scouts of America and Monmouth Council, Boy Scouts of America vs. Dale, is on appeal from the New Jersey Supreme Court. The case presents a number of key issues concerning the First Amendment's right of association that could bear directly on a private club's membership policies, selection of leaders, and activities. In its amicus brief, NCA and CSCA urged the court to make clear that public accommodation laws should not be constitutionally applied to private voluntary social clubs and associations that are predominantly non-commercial in nature.

NCA Executive Vice President Susanne R. Wegrzyn noted that the amicus brief was filed because there are thousands of clubs in the United States, many of which are NCA members. "If the U.S. Supreme Court affirms the New Jersey Supreme Court decision stretching the New Jersey public accommodation law to include the Boy Scouts, there are few private clubs that would not be affected," she said.



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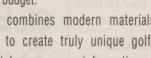
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Visentin named ClubLink CFO

KING CITY, Ontario — ClubLink Corp. has appointed Robert Visentin chief financial officer. Most recently Visentin was vice president, project operations and capital planning and has been a member of the corporation's senior management team since 1997. Visentin came to ClubLink from Brookfield, where he held various senior financial positions, including chief financial officer of Brookfield Homes from 1994 to 1997.

ClubLink has also agreed to sell five acres of vacant land adjacent to ClubLink's Aurora Golf Club to an entity owned by Verdiroc Holdings Limited ("Verdiroc") of Toronto, subject to rezoning and severance. Plans for this site include a first-class residential development that will incorporate a new clubhouse area for Aurora Golf Club at no cost to ClubLink. The previously announced joint venture with Armadale Properties Limited and Verdiroc, established to jointly develop this land, has been terminated. In addition to the above five acres sold to Verdiroc, ClubLink continues to own other surplus land adjacent to Aurora Golf Club that had been included in the joint venture.

DPC names Nelson GM at Sweetwater

LONGWOOD, Fla. — Dave Nelson has been named general manager of Sweetwater Country Club here.

Sweetwater is one of three Orlando-area courses operated by Diamond Players Club.

Nelson was formerly regional vice president of Sports and Fitness Management, Inc. in St. Louis. He was also general manager at Heatherwood Golf Club, a private facility in Birmingham, Ala., for seven years. He has 20 years in golf management at private and semi-private clubs throughout the United States.

A native of Clinton, Iowa, he attended the University of Wisconsin, majoring in agronomy.

TEC PURCHASES SUSSEX NAT'L

EAST SUSSEX, England -Chesterton HMH has sold East Sussex National Golf Complex to a new group called The European Consortium (TEC). The aim of the new owners, who have extensive interests throughout Europe, is to build out the 200bedroom hotel. The guide price was £10 million for the 1,100acre estate which comprises two golf courses, a hotel and residential properties. East Sussex was the venue for the European Open in 1993 and 1994. GOLF COURSE NEWS

Since March 13, ClubLink has purchased 360,000 common shares at an average share price of \$6.47 for a total cost including commissions of \$2.348 million pursuant to a Normal Course Issuer Bid filed on October 5, 1999. All common shares purchased pursuant to the issuer bid are canceled.

ClubCorp hires Fazio to remodel Firestone CC

AKRON, Ohio — ClubCorp has hired Tom Fazio to remodel the West Course at Firestone Country Club. The West Course is the shortest and newest of the three 18-hole courses at Firestone Country Club's facility. The West Course opened in 1989, but has never competed with the better-known North and South courses. "We're taking this step to basically improve

the overall level of Firestone's facilities," said

Don Padgett II, Firestone's vice president and general manager.

Fazio recently completed renovations at ClubCorp's Pinehurst No.4. With many of the same elements to the remodeling, Fazio's work on Pinehurst No.4 sparked the renovation idea at Firestone Country Club. The West Course will close October 1 and will not reopen until June 1, 2002. Cost is estimated at \$7 million.

To some lenders this is a very risky situation.

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make our own decisions, we make our own loans and we can usually provide higher valuations and higher loan limits to golf facilities. And we continue to service our loans so our borrowers always deal with the principal lender.

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clubessential, EZLinks Golf agree on merger

VIENNA, Va. — clubessential, provider of web-based software products enabling interactive communications within golf and social clubs and EZLinks Golf, a tee time software provider, have agreed to preliminary terms of a merger.

clubessential's private label products allow club communities to extend their events and activities on the Internet. Such online services include news, interactive calendars, event registration, club newsletters and private messaging. The software enables club managers and members to expand communication options.

With this private internal com-

munication, members and managers can control every component of club life from tee times, event calendars and dinner reservations as well as photo galleries, member and staff rosters and newsletters.

California-based KSL Recreation, an owner/developer of resorts and clubs, along with equity sponsor Kohlberg Kravis Roberts & Co., have provided the backing for this Internet start-up company. Both KSL Recreation and Troon Golf are clients of EZLinks Golf.

EZLinks Golf is a golf services network providing tee time reservations, handicap computation services, phone call outsourcing, payment processing and marketing consulting to more than 450 golf courses, hotels and travel companies across the country. The firm has booked over 25 million rounds since 1996 and recently launched a handicap network in Arizona.

Steve Elliott, chief executive officer of clubessential, said the firm has partnered with Troon Golf to utilize clubessential software as Troon's club communication system companywide.

Arizona golf

associations

sign EZLinks

BURR RIDGE, Ill. — EZLinks Golf, Inc., has launched its EZLinks

Golf Network, using Web

technologies to make

handicap services faster, more convenient and more cost-effective for member organizations. The network's landmark first users are the Arizona Golf Association (AGA) and the Arizona Women's Golf Association (AWGA), which serve the state's 450-plus golf courses and clubs with more than 85,000 member golfers. The EZLinks Golf Network will be private-labeled for

the AGA and AWGA as

the Arizona Handicap

EZLinks Golf has pro-

vided each AGA-member course and club with the hardware, software and tech support required to establish and maintain connections to the EZLinks Golf Network. The system enables golfers to post their scores in an online database for immediate publication and handicap computation, directly from a ter-

minal computer at the

course. From home, golf-

ers will also be able to review their own scores and those recorded by

Developed in conjunc-

tion with the AGA, the

EZLinks Golf Network

was created by EZLinks

Golf consultant and

former United States Golf

Association (USGA) President Grant Spaeth and EZLinks Golf Vice

their peers.

Network.

FRESH SOLUTIONS FOR **BETTER TURF MANAGEMENT.** REOPEN Opens soil. lets it breathe. RECHARGE Promotes spring green-up, rejuvenates root REMOVE Reduces salt build-up. regrowth throughout the season. **ROOT REVIVE**TM

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environmental stress, disease pressure and insect damage. Applied with conventional equipment, simply load the FreshPack products and go. There's no interruption of play.

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TURF

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President Dick Stroud, one of the original developers of the USGA's handicap system. The new system is designed to help regional golf associations.



Palmer promotes handful of key personnel

ORLANDO, Fla. — Arnold Palmer Golf Management has promoted several key company executives.

Tim Tierney becomes chief operating officer. Prior to the promotion, Tierney was best known for his efforts as vice president of operations at Palmer Golf.

Brian Donahue has been named director of sales and marketing. Donahue joined Palmer Golf management in June after a nine-year career in various positions within the golf course management industry.

Sue Gorman, previously manager for retail operations at Palmer, was promoted to vice president of retail.

On the food and beverage side, Chris Caserta — an industry veteran with such nationally branded franchises as Hard Rock Cafe and Planet Hollywood has been named vice president of food and beverage operations.

In addition to successfully managing national vendor accounts, Caserta has played key roles in the staffing and training aspects of Palmer Golf's course acquisitions.

Among others promoted was Lori Ness to vice president of information technology. Since joining the company in 1998, Ness has been largely responsible for

GolfMatrix Continued from page 25

from Baltimore to Baton Rouge and includes clusters of courses in Northern Virginia and Pinehurst, North Carolina. All of the facilities are 18-hole layouts, with the exception of FoxFire Golf & Country Club in Pinehurst, which has 36 holes.

"This portfolio was attractive to us because most of the core courses have been either newly opened or renovated within the past four years," said Scott Van Newkirk, president of club operations and marketing. "Our mission will be to capitalize on the infrastructure already in place by dramatically increasing customer-service levels, course conditioning and member programs."

Another major benefit of the deal for GolfMatrix will be acquiring the existing financial, marketing, development, operations and construction expertise of the corporate and facility personnel at GolfSouth. In addition to the existing management team, GolfSouth founder Barton Tuck will also remain with the new company.

Corporate headquarters for GolfMatrix will remain in Scottsdale, and current GolfSouth offices in Greenville, S.C. will serve as the Eastern regional location. implementing much of the new technology and infrastructure needed to keep up with the growing Palmer network of courses.

On the planning side, Charles Bracher was named director of corporate planning and Tony Leonard director of planning and analysis.

Others receiving promotions regio

were Darlene Fountain and Christine Wilton as new assistant controllers and directors, while Lori McLarney and Lu Ann Harkins have been made accounts receivable manager and accounts payable manager respectively. In addition, Ken Oehlers has been promoted to regional marketing manager.

NGCOA, IBS REACH AGREEMENT

CHARLESTON, S.C. — The National Golf Course Owners Association's Smart Buy Network has reached agreement with Integrated Business Systems (IBS), a leading provider of pointof-sale software, to offer an integrated auto-replenishment feature in the Smart Buy Network electronic commerce system. All NGCOA member courses that have the IBS point-of-sale system will have the ability to generate purchase orders automatically when inventory reaches a certain level. This will reduce the time spent waiting for sales representatives to call and the time spent by pro shop staff in re-ordering products.

Losing fertilizer to mower pickup just doesn't cut it.

What a waste. Applying fertilizer one day, only to have it picked up by the mowers

THE STREET

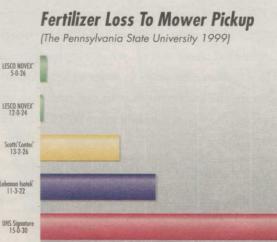
the next. With some fertilizers it's par for the course. But not with

NOVEX[™], the new homogeneous, controlledrelease fertilizer from LESCO.

The tiny, uncoated NOVEX particles readily penetrate the turf canopy. They resist mower pickup even when applied to extremely dense, low-cut putting surfaces. And that's a real advantage in more ways than one.

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significant amount of fertilizer with the clippings. And the fertilizer stays in the turf so it can do the job it was intended to do. With that kind of efficiency you may even find yourself applying less product. And another benefit? NOVEX is barely visible to the golfers.

NOVEX is available now in an assortment

of analyses in fairway or greens-grade particle size. Try it. You'll see. This is a great fertilizer not only for what it does, but also for what it doesn't do...get thrown away with the clippings. Contact your LESCO Professional or call 800.321.5325.





Hampton Golf

Continued from page 1

Orender, secretary of the PGA of America and a former partner in Granite Golf, formed Hampton Golf in 1999 with longtime friend Ed Burr who owns the Landmar Group, a property development firm. Hampton Golf is the course management arm of Landmar and manages all courses that Landmar acquires or builds.

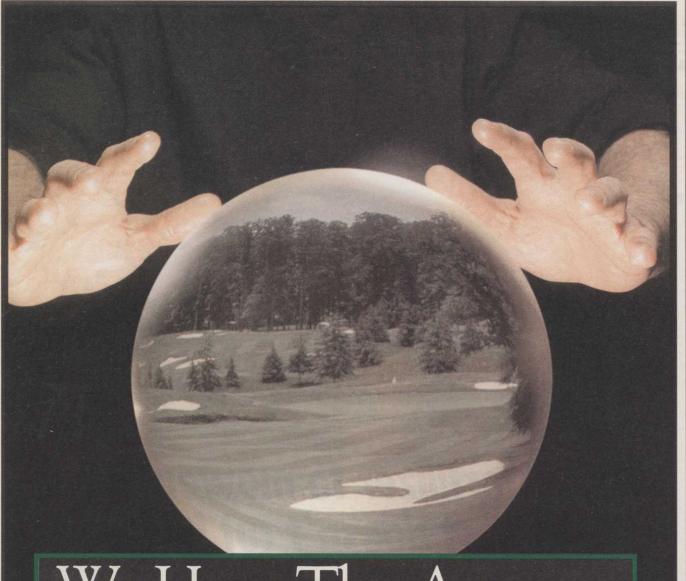
Orender opened the Mark McCumber signature designed Golf Club at South Hampton near St. Augustine in January and work is progressing on its sister course, the Arnold Palmer signature designed Golf Club at North Hampton in Yulee. That course is due to open in December. The group scored a third layout May 5 when Landmar bought Grand Haven, an 18-month-old Jack Nicklaus signature-layout that will have 1,100 home sites.

At South Hampton, Orender built what he calls "a bunny slope for golf." The course has six sets of tees. The

championship tees play at just over 7,000 yards and the front "family tees" play to 2,800 yards. This "course-within-a-course" "No ski instructor would expect you to go out on a ski slope the first time and go down the black diamond run. But that's what we do in golf. — M.G. Orender

allows beginners to have their own layout, complete with different pars, while still playing on a real golf course.

"No ski instructor would expect you to go out on a ski slope the first time and go down the black diamond run," said Orender. "But that's what we do in golf. We send a



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PENNINGTON

beginner out there, he plays badly, the ranger is telling him to hurry up all day and the best part of his afternoon is when he gets back to the clubhouse and gets a cold beer. The guy leaves and never comes back again—and everyone wonders why we have a high attrition rate in golf."

Instead of trying to lure golfers away from other facilities by cutting back on service and reducing rates, Orender is concentrating on offering a better product and better staff.

"Service and added value does two things," he said. "One, it takes existing golfers and makes the time they spend more enjoyable. Two, we reach out to the community and segments of the population who are interested in golf and have either been disenfranchised or not embraced before. We bring them out and let them have fun and join the party. It doesn't make sense not to do it."

SHIFTING DEMOGRAPHICS

Orender, who was part of the National Golf Foundation's (NGF) "Future of Golf" panel, said course operators need to take a closer look at the demographics of golf.

In addition to the 41 million golfers who have played golf, want to come back to the game or play more, according to the NGF study, Orender said that: "On any given Sunday you have 20 million people watching golf that don't play. These are kids, Generation X, minorities and women that would play if there were more user-friendly courses.

"A lot of people don't want to think about this, but the kid who has his hat on backwards, wearing the baggy shorts that's your customer. So you can't sit around waiting for the baby boomers to hit 50 and get bitten by the golf bug," said Orender.

So far the strategy has worked at South Hampton. Orender's first member was an African-American father and his nine-yearold daughter. People are also driving great distances every Sunday to come out and play with their kids because they can play free with their parents after 1 p.m.

However, Orender is pragmatic. At North and South Hampton, courses that he built and that are centered in familyoriented communities, it was easy to institute the beginner-friendly strategy. "But at a course like Grand Haven, it might not be possible," he admits. "It is more of a resort course catering to retirees. But, if I go out tomorrow and buy a public daily-fee course, I would figure out how to build another set of tees. It is a small investment to make."

Hampton Golf and Landmar are also eyeing future growth.

"We are looking at doing brand new communities with golf courses in Tampa and Camden County, Ga. Tampa is a departure, but we want to stay along I-95 between Daytona to South Georgia, if we can," said Orender. "If an existing golf course community comes up we'll do it, but we are not looking just to do golf outside of a community development unless the deal is right."



RAIN BIRD GOLF PROMOTES LOPER

AZUSA, Calif. - Rain Bird's Golf Division has promoted Pat Loper to the newly created position of manager

of central control. In the new position, Loper assumes responsibility for new business development for Rain Bird Golf in all areas related to computer technology. His



current projects include Smart Pump software for pump station control and Global Positioning System applications for golf irrigation.

...AND ADDS FAY

AZUSA, Calif. - Rain Bird's Golf Division has named Christopher Fay national sales manager. Fay will be responsible for managing the growth and development of domestic golf sales for the entire division. Additionally, he will manage a sales team of regional and specification managers to develop sales through the company's independent distributor network.

BAYER RESHUFFLES LINE-UP

KANSAS CITY, Mo. - Bayer Corp. Garden & Professional Care (GPC) has announced the transitions and hiring of three employees. Dan Carrothers has been appointed head



of marketing for the GPC unit. Phil McNally, Ph.D., will transition within Bayer to become the field research and development representative for the Western United

Dan Carrothers

States. Additionally, Chuck Silcox Ph.D. has been hired to serve as the field research and development representative for the Northeastern United States

HIGGINS TAKES NEW ROLE FOR PTI

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SYLACAUGA, Ala. - Jeff Higgins has been named director of market development for Pursell Technologies Inc. (PTI). Higgins was previously the marketing director for PTI. He is now in charge of the PTI Tour, training and developing new products for commercialization. The PTI Tour hosts golf course superintendents for a visit to the company's headquarters and includes training, a plant tour and recreation.

SUPPLIER BUSINESS

Spectrum Technologies ready with chlorophyll meter technology

By ANDREW OVERBECK

PLAINFIELD, Ill. - Spectrum Technologies, Inc., based here, has been awarded an exclusive patent from the National Aeronautics and Space Administration (NASA) to complete the development of and commercialize a plant chlorophyll meter. The hand-held plant stress detection tool has the capability to detect stress up to 16 days before plant deterioration is visible to the human eye.

"Chlorophyll is indicative of plant health," said Mike Thurow, president of Spectrum Technologies. "The meter allows fast measurement that can tell us how turfgrass responds to stress, be it heat, moisture, disease, insects or

traffic. The golf course market is the perfect market for it."

The device is smaller than a camcorder and has a laser sighting that is pointed at a spot on a green or fairway.

"It is a user-friendly device," said Thurow.

"You walk around the green and shoot 10 or 15 spots and get a good representative sample. It takes a

second to measure and the read-out keeps an ongoing average. "If a person takes weekly measurements with the meter they will begin to see trends. It has the potential to show us problems before we can visually see them. Once you can see the problems, you are already in trouble.'

Spectrum Technologies is a 13-year-old company that focuses on products for nutrient management, integrated pest Continued on page 33

NEW PRODUCT OF THE MONTH



The Gandy Spiker/Seeder overseeds and aerates in one pass and has a 44-inch seeding width, with 1220 replaceable spikes, either 3/8 of an inch by 7/8 of an inch or 1-5/8 of an inch long. The spikes create 693 vents per square yard and are threaded into an 18-inch by 48- inch steel roller with rolled edges. Precise metering along with a rubber rotor and spread plate assures even seed distribution, including bentgrass. The unit can be used with almost any turf vehicle having a 12-volt battery. Two brushes are used, one for cleaning the drum and one to assure seed/soil contact. For more information, contact 1-800-443-2476 or www.gandy.net.

Golf Course News STOCK REPORT (5/15)*

Company	Symbol		Change 1/1/00	%Change 4/17/00	P/E	52-week Range	Proj.5-yr Earn. Growth
Astrazeneca	AZN	43.75	4.79	2.34	31.7	31-47.88	10.8%
Deere & Co.	DE	44.5	5.01	11.42	45.43	30.31-48.5	9.5%
Dow Chemical Co.	DOW	117.31	-11.55	9.25	18.32	92-141.5	7.8%
Family Golf Centers	FGCIQ	0.3125	-97.78	-50.00	N/A	0.25-9.5	N/A
Golf Trust of Amer.	GTA	16.875	-0.37	0.75	13.34	14.5-25.75	8.8%
Ingersoll-Rand	IR	47.1875	-14.30	8.48	12.55	34.25-70.12	5 12.0%
Lesco Inc.	LSCO	15.5	-8.82	5.08	10.8	12.25-19.5	17.5%
Nat'l Golf Prop.	TEE	19.75	0.00	-0.94	14.37	18.38-27.75	9.1%
Toro Co.	TTC	30.875	-17.25	-1.59	11.75	29-39.5	12.0%
Textron Inc.	TXT	65.8125	-14.18	11.08	14.37	51-95.625	14.2%

Flowtronex teams up with **Turf Feeding Systems**

By ANDREW OVERBECK

DALLAS - Flowtronex PSI has gained the U.S. rights to sell, market and provide service for Houston-based nutrient injection system manufacturer Turf Feeding Systems. The agreement covers the company's three models of the Nutrifeed injection system that are primarily used for grow-in on new golf courses.

We got involved because more new courses are using nutrient injection," said Tom Male, Flowtronex's general manager. "They wind up getting attached to pump stations and tied into our controls, so it makes sense to get into marketing an injection system because it would save the customer a lot of time and grief."



Tom Male

Flowtronex customers will not only be able to order the injection system along with pump stations but can also have the system serviced by Flowtronex.

"Fifty percent of our business is new courses," said Male. "This is a value added service that will make it easier for our customers. We can provide it and wire it up and then all they have to do is dump in the nutrients."

Flowtronex will not be getting into agronomic consulting, said Male.

We will leave that to the agronomy consultants," he said. "We will not tell courses what to use and what rates to apply products."

Continued on page 33

Harmony building new organic fertilizer facility

CHESAPEAKE, Va. - Harmony Products, Inc. is constructing a new organic fertilizer plant in Harrisonburg through its subsidiary, Harmony-Shenandoah Valley, LLC (HSV).

The plant will have the capacity to produce approximately 65,000 tons of fertilizer a year. HSV will utilize Harmony's patented technology to manufacture its organic based Bridge fertilizers, which combine organic materials with synthetic fertilizer materials to form a granular, homogeneous, organic base fertilizer. In addition, the facility will manufacture granular, organic fertilizers. The products will be sold to the professional and commercial markets.

"This project will help Harmony meet the demand for our products on a very cost effective basis," said Greg Gill, president of Harmony.

The HSV plant will utilize poultry waste from nearby poultry growers as the primary feedstock for the manufacture of the fertilizer as well as fuel for a waste-toheat conversion facility. The heat will be used to dry the finished product.

Rocco, Inc., a poultry processor located in Harrisonburg, will be a minority owner in HSV and will have an ongoing role in providing management expertise in the construction and operation of the plant. Rocco will also provide the conduit to local poultry growers, who will supply poultry waste. Funding for the project will be provided by a Rocco equity contribution, a matching grant from the Virginia Poultry Litter Transportation Fund and Duke Solutions, Inc.

SUPPLIER BUSINESS

Club Car picks up Dash Golf Cars

WOODCLIFF LAKE, N.J. - Club Car, Inc., a division of Ingersoll-Rand Co., has acquired Dash Golf Cars, Inc., based in Indio, Calif. Dash Golf Cars sells new, used and reconditioned golf cars and utility vehicles, and offers a line of customized vehicles designed for the personal golf car market. Terms of the transaction were not disclosed.

Dash Golf Cars is the largest North American retail dealer for Club Car. The company has three retail outlets in California, two in Palm Desert and one in Rancho Mirage. It conducts manufacturing and assembly operations in Indio.

"Dash Golf Cars provides us entry into the personal golf car market with a line of deluxe vehicles, selected models of which will be available to our Club Car dealer network," said Herbert L. Henkel, president and chief executive officer. "In addition, we gain retail presence in a strong regional market, which will enable us to develop and test innovative downstream product and service concepts.'

Lesco reports record first quarter sales

CLEVELAND - Lesco, Inc. reported record sales for the first quarter ended March 31.

Net sales for the first quarter of 2000 increased 19 percent to a record \$98.9 million, compared with net sales of \$83.1 million for the same period last year, reflecting growth in all major product categories. Lesco also reported a loss for the first quarter of \$1.2 million, or \$0.14 per diluted share, compared with a loss of \$ 1.8 million, or \$0.21 per diluted share, in the same period a year ago, a 33 percent improvement. Due to the seasonality of its business, the company typically reports a loss in the first three months of its fiscal year.

"We are also encouraged by the significant progress at Commercial Turf Products, and are optimistic that Lesco's 2000 results will continue to show improvement throughout the year," said William A. Foley, LESCO chairman, president and chief executive officer.

John Deere's Deere Trax system collects the GPS generated data and assembles it in a useful management form. "The system is now being used in our construction equipment division and we are now looking at using it in golf," said Meyers.

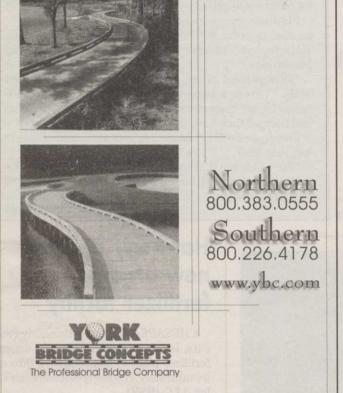
The SkyLinks system for golf cars was launched earlier this year and is now in use on five golf courses.

Textron is working with ParView to integrate its Track-It maintenance and management software program with GPS and GIS to develop a total system management program.

"The solution is to give the superintendent a total course management system that allows the superintendent to monitor his product and equipment, but also to monitor the course itself in terms of spraying, course conditions and machinery breakdowns," said Peter Whurr, vice president of product management for Textron Turf Care and Specialty Products. "If the superintendent knows all of this straight off, he can take proactive action."

a history of maintenance practices at a specific course. "When a new superintendent comes in, he could pull up a history of the course that shows him

Continued on next page



Our Mission: Win-Win

Service

GPS systems on the way for superintendents

continued from page 1

August 1998 and launched John Deere Golf Technologies. Toro Co. made an equity investment in San Juan Capistrano, Calif.-based ProShot Golf in January 1999. Earlier this year, Textron Turf Care and Specialty Products announced that it is working with Sarasota, Fla.-based ParView Inc. to develop a maintenance-based GPS system.

The basic GPS system will track maintenance equipment on the golf course, allow superintendents to ensure that workers are performing assigned tasks and, when integrated with the golf car system, send workers to areas of the course that are not receiving much play.

'What we want to do is wrap our SkyLinks technology around the superintendent's duties," said Tom Meyers, marketing manager for John Deere Golf Technologies. "That will involve everything from

preventative maintenance tracking to site specific management, precision spraying and mowing, accurate compliance with Environmental Protection Agency record keeping, detailed material analysis and application and inventory and cost control.'



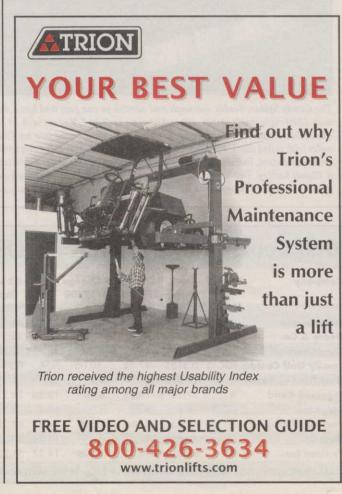
John Deere's Skylinks GPS system.

According to Whurr, the system could also build

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Profile snaps up **Conwed Fibers**

Buffalo Grove, Ill. - Profile Products LLC has purchased woodbased hydraulic mulch products manufacturer Conwed Fibers. Based in Conover, N.C., Conwed

Fibers has 35 years of experience producing high-quality products for the golf course, DOT highway, landfill, commercial and residential markets.



The acquisition includes Conwed manufacturing facilities and all products and brand names, such as Futerra erosion control blankets, Hydro Mulch products, home lawn products, tackifiers and nettings.

"The addition of Conwed compliments our existing line of proprietary products," said Mark Lewry, president of Profile Products.

This addition builds on the company's August 1999 acquisition of the Terra-Mulch company, maker of cellulose mulches and amendments.



GPS on the way

Continued from previous page

what has taken place over the last few years. That way he can hit the ground running," he said.

ParView's golf car system is in use on 70 golf courses and Whurr expects that the maintenance equipment GPS system will go into beta testing in the next few months.

Toro's Center for Advanced Turf Technology is working with ProShot's GPS technology to adapt it to maintenance applications.

Toro is attempting to take the GPS technology and couple it with Geographic Information Systems (GIS) and take it to another level and apply it to our own equipment," said Chip Engdahl, marketing manager for Toro's commercial division.

"One of the big ideas is precision turf maintenance and management. By coupling GPS, GIS and variable rate spraying technology you can be more precise on rates-tracking where, how much and when you put stuff down."

The ProShot system is being used on more than 150 courses nationwide and Engdahl said that maintenance related product testing is ongoing.

RESEARCH AND DEVELOPMENT

GPS research and development has

been time-consuming. In addition to developing maintenance-specific systems, companies have to solve reliability, durability, cost and marketability issues

"You can't simply apply the technology that is being used on golf cars to equipment," said Engdahl. "Data capture needs to be more precise, it needs to communicate more often and it needs to be more

durable. A mower gets more abuse than a golf car because you have grass, water, pesticides and dirt going through the unit as opposed to driving over it.

Textron has been working with superintendents to determine what features and systems will be the most helpful.

"We want to make sure that the product we have is what the customer wants," said Whurr. "We

can put all sorts of bells and whistles on this and show people how clever we are, but that doesn't necessarily mean that a superintendent will find it useful."

A GPS system for golf cars costs between \$100,000 and \$300,000 depending upon the number of features and cars involved. While none of the companies have set prices for maintenance-only systems, a total course GPS system would work off the golf car price baseline.

Meanwhile, companies are still working on reducing costs.

We have to make sure that this is something that courses can afford and find value in," said Meyers.

For communication alone, Bruce Williams, superintendent at Los Angeles Country Club, thinks GPS systems will be very useful on courses.

"This is a communication vehicle. Many courses didn't have radios 20 years ago; now we have radios, cell phones and two-way pagers for upward, downward and lateral communication," he said. "This is another way to stay in

touch. It is just as important to know where your staff is if you have four guys or 40 guys."

While Scott Cybulski, superintendent at Falmouth Country Club outside of Portland, Maine, thinks GPS may be a little overly sophisticated, he too sees the po-

When the out of the ou

ffice

tential value.

"Marking out sprayed areas with GPS may be the most handy," he said. "Knowing area sizes and where valve boxes and irrigation heads are would be great. ... If I could do it, that is why I would do it."

MARKET POTENTIAL

According to those in the industry the market potential is large.

"The industry is booming right now," said Nate Yoder, vice president of marketing for ParView. "We sold more systems in the last quarter than we had in the previous three years.'

Of the nearly 17,000 golf courses in the U.S., Engdahl believes that every course will eventually be touched by GPS or GIS.

'At some point the technology will effect every course," he said. "GIS for irrigation, GPS for cars, and at some point it will be everywhere. The management of the golf course will be more unified because of these technologies.'

According to Whurr, GPS systems will be well suited to the needs of course management companies. "The biggest concern from a management perspective is monitoring equipment and preventative maintenance," he said. "This would be a benefit to management companies because they'd know that they are getting the best out of their equipment."

Chlorophyll meter Continued from page 31

management (IPM), soil and water quality and environmental monitoring. They currently have a prototype of the meter and are testing it with superintendents and turfgrass researchers this summer. Thurow plans to unveil the meter early next year.

Dan Dinelli, superintendent at North Shores Country Club, in Northbrook, Ill., will be using the meter in a compost study that he is doing this summer.

"We are working with compost and the dynamics of nitrogen," he said. "We are doing a weekly analysis of different plots that have different rates of compost.'

Dinelli will be using the chlorophyll meter as an early-warning signal to see what changes the plant is going through. As a result, Dinelli hopes to correlate the compost/nitrogen study with the chlorophyll meter to see if the tool can be used for nitrogen assessment.

Flowtronex

Continued from page 31

Turf Feeding Systems, however, will provide technical expertise and support to customers

Three models of the Nutrifeed system are available and they cost between \$8,000 and \$12,000.

The 1000 is suited to small courses and has a single head for the control of one nutrient at a time. The 2000 is for medium sized courses and has two heads and a 60 gallon-per-minute capacity. The 3000 is for large courses and has three heads and can provide three separate nutrients at once.

All Nutrifeed systems will be fully integrated into the pump system's controls.

"Stress can be caused by a lack of fertility and nitrogen," he said. "This won't tell you what the problems are, but it clues you in to dig deeper. You have to open the IPM tool box, get soil cores and send in samples. The point is to get as early a jump [on stress issues] as possible.

Through this summer's research Thurow hopes to gain some insight into how the meter can be used.

"We will be trying to develop general guidelines to get people through the learning curve faster and correlate it with fertility conditions," he said.

Initially, Thurow said, the meter would be used by higher-end courses or more innovative superintendents. The final price has not been set, but it will likely cost around \$2,000.

Dinelli thinks the tool could have a universal use to back up fertilization practices.

"The tool could help us justify what we do from an environmental perspective," he said. "It could help reduce nitrogen applications or justify the ones we do." h

PGC launches site

DENVER - Professional Golf Commerce has launched its web site (www.pgcgolf.com), an online,

Show in Las Vegas, the site cur-

rently hosts products from more

than 40 vendors and is available to

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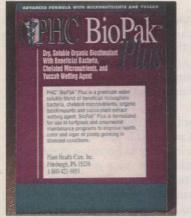
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PHC BioPak Plus is available in 1-pound or 5-pound bags and a 1-pound jar with a premeasured spoon for easy application. For more information, contact 800-421-9051.

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Ultra-InLine SpillDecks designed to contain leaks and over spills of waste oil and other fluids used by golf courses. The low profile units are five feet tall and are available in one to six drum models. All models meet EPA Container Storage Regulation 40 CFR 264.175 and are constructed of polyethylene that will not rust or corrode. Optional loading ramp is available. For more information, contact 800-353-1611.

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GCSAA survey

Continued from page 13

marks as the most common breach of golfer protocol, while 65 percent of superintendents cite the failure to fix divots as the second most common breach of etiquette. Superintendents also blame the failure to repair ball marks (81 percent) for causing the most damage to golf course conditions.

FUN FINDINGS

The survey also revealed a number of other interesting facts:

• Superintendents rate Jack Nicklaus as the greatest golfer of all-time. Thirty three percent rank "The Golden Bear" tops in the game. Arnold Palmer (11 percent) and Tiger Woods (8 percent) came in second and third, respectively.

• Superintendents were asked, if they could play one round of golf in North America, where would it be? Augusta National Golf Club garnered the most votes (36 percent), while two Monterey, Calif. area courses — Pebble Beach Golf Links (23 percent) and Cypress Point Club (18 percent) rounded out the top three.

• On a question of leadership and executive privilege, superintendents rated President Kennedy (16 percent) their top choice among 20th century U.S. presidents to play around of golf with. Presidents Eisenhower (13 percent) and Reagan (12 percent) were the second and third choices.

Dodson commentary

Continued from page 10

Bronze, Silver and Gold Signature represent the landowner's environmental and economic investment in sustainable development, the complexity of the project, and the extent to which the institute is involved.

To make this determination, the Audubon Signature Program provides the opportunity for a landowner to describe the proposed project, to apply to become a Signature member, and through communication with Signature staff, determine the most appropriate level of involvement.

For more information about the Signature Program, please contact Signature Program Director Nancy Richardson at 270-869-9419.

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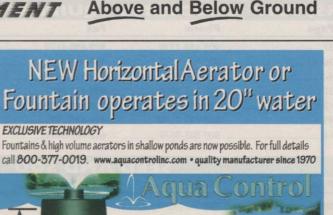
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Continued from page 19 golf," he said.

As for the course itself, the par-3 13th, called "Dubai", has the longest tee and longest green of any golf hole in the world, Muirhead said. There are limitless possibilities for tee and pin positions, ranging from a monstrous 220-yard carry over water to a 50-yard "lollipop" across land.

The architect said the hole was designed to symbolize the Emirate of Dubai and its history. True to that history, Muirhead has incorporated a flying fish bunker and a group of date palms that denote the commerce on which the Emirates are founded.

Adhering to his belief that the 18th hole of a golf course should always be a memorable hole, Muirhead designed the final hole at Emirates Hills to offer a myriad of choices by which to approach the par-5.

The hole consists of two diagonal peninsulas joined by a narrow neck of land. The golfer can bite off as much as he feels able, said Muirhead, but there will be few who can reach this 600-yard par five in two shots. Usually, a short iron will have to be negotiated from one of two fairways divided by a lake to a green that offers a variety of hazards.

"I believe the 13th and 18th holes are unique in the word of golf," said Muirhead. "I feel the 18th hole on a course should be a fair but also challenging and adaptable."





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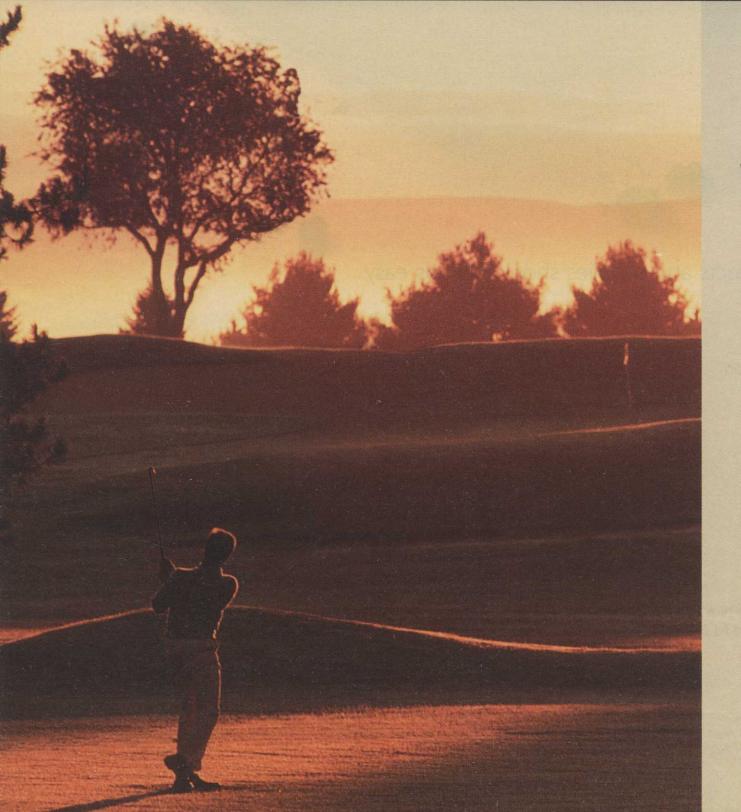
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