

GOLF COURSE NEWS

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RENOVATION COMMUNICATION

In the latest installment of a series tracking the progress of the renovation project at Willoughby Golf Club in Stuart, Fla., superintendent Kevin Downing outlines the need to keep members informed about the progress of renovation work (members playing on a soon-to-be-closed green are pictured above). He also discusses the ins and outs of the bidding process. See page 12.

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POINT

Dr. Michael Hurdzan and Tom Fazio debate what impact golf cars have on course design and the game of golf.

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COUNTERPOINT

New Bayer ES head: 'Bar has been raised'

By ANDREW OVERBECK

MONTVALE, N.J. — The field of major agrochemical players narrowed further in late May as the U.S. Federal Trade Commission (FTC) approved Bayer AG's acquisition of Aventis CropScience from Aventis SA and minority owner Schering AG (GCN July 2002).

The buyout marks the demise of another multinational player and the creation of Bayer Environmental Science.

Josh Weeks, former vice president of Aventis Environmental Science's Chipco Professional Products group, will head the new professional products division of Bayer ES.



Josh Weeks

DIVESTING FIPRONIL

One of the first challenges facing Weeks will be the forced divestiture of two key product lines. As part of the approval, both the FTC and the European Commission are requiring Bayer ES to dispose of its fipronil and acetamiprid product lines.

While acetamiprid is a neonicotinoid class of chemistry that is being developed primarily for the greenhouse industry, the fipronil divestiture will directly impact the golf market. As part of the deal, however, Bayer ES will

Continued on page 18

Quarry Hills sets new opening date

By DEREK RICE

QUINCY, Mass. — Reports of the death of the Quarry Hills Golf Course outside of Boston are greatly exaggerated, according to one of the project's developers, Chick Geilich.

"It's interesting how the stories get totally twisted," Geilich said. "We extended our contract with the Big Dig to accept 50 percent more dirt than our original contract and as a result of bringing in this extra dirt, we are a year behind our original projected finishing date."

In recent months, published reports have suggested that the development had stalled because of run-ins with city officials and a lack of



With nine holes completed, Quarry Hills is looking toward an early 2003 opening.

Photo by Arthur Cicconi

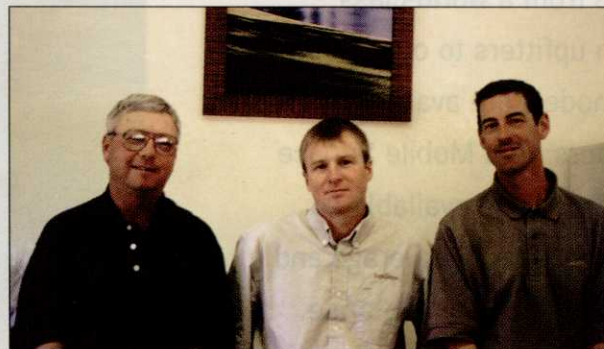
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Lahontan Golf Club pushing organic boundaries

By DOUG SAUNDERS

TRUCKEE, Calif. — While other courses in the High Sierra are considering what synthetic materials to use to jump-start spring turf growth, Lahontan Golf Club here is taking an organic approach. Each spring, head superintendent Kevin Breen's crew diligently spreads 43 tons of chicken crumbles on the 130 acres of fairways to build up the soils before opening day.

Six years of organic efforts at Lahontan, an 18-hole Tom Weiskopf-designed course, have begun



(Left to right) Mike Kosak, Martyn Hoffman and Kevin Breen

to pay off. Each year Breen has been able to cut back on his annual synthetic fertilization to sustain a

healthy stand of turf.

The direction toward an organic maintenance program was put into place

when construction began under the watchful eye of Mike Kosak, the director of agronomy. This enclave of mountain homes and the only private golf club in the Lake Tahoe region has stressed a careful environmental program to blend the development into the natural landscape with as little intrusion as possible.

Kosak has strived to utilize organic farming methods to make this property sustainable for

Continued on page 10

Management companies holding on

By DEREK RICE

SANTA MONICA, Calif. and CHARLESTON, S.C. — Two financially troubled golf course ownership and management companies — National Golf Properties (NGP) and Golf Trust of America (GTA) — received reprieves of sorts in July from their creditors.

NGP, which has continued to push toward a merger with its largest ten-

ant, American Golf Corp., despite pressure from shareholders, has reached an agreement with its lender, Bank One N.A., to extend the forbearance period on NGP's \$300 million credit line until March 31, 2003. As collateral, NGP granted mortgages and deeds of trust on its properties. The company has been in technical default

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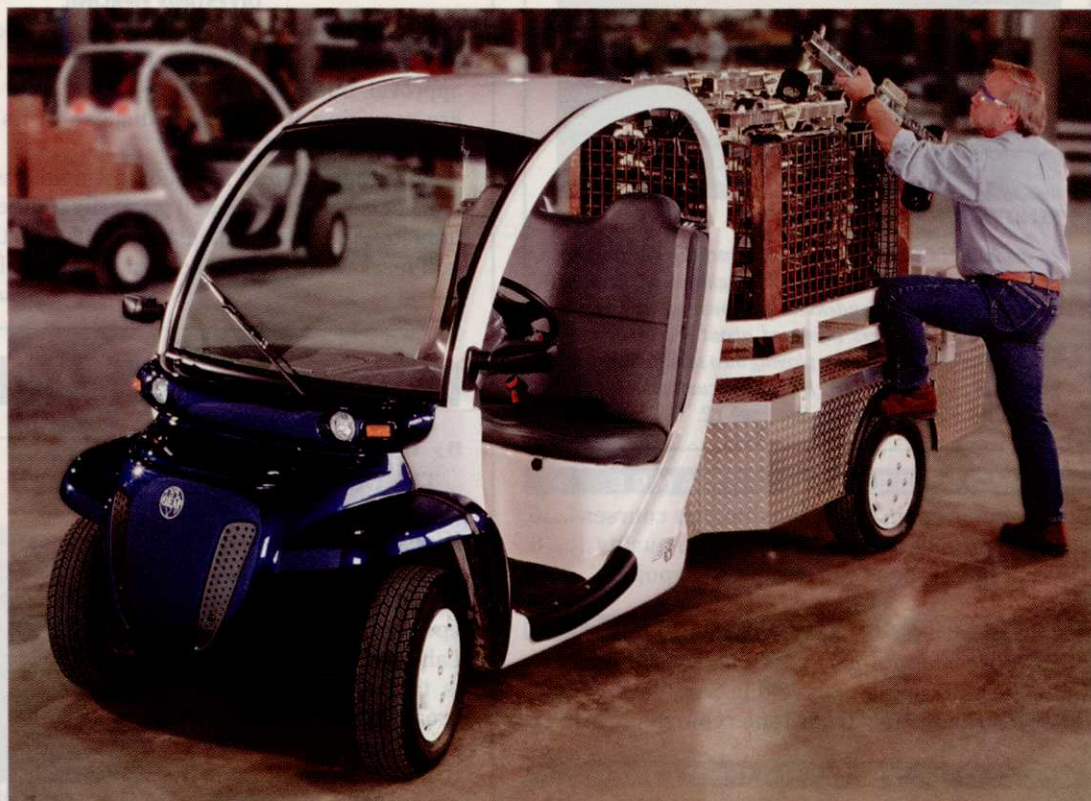
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Summit details need to promote golf courses as environmental assets

By Dr. M. HURDZAN

NEBRASKA CITY, Neb. — Christine Todd Whitman, director of the U.S. Environmental Protection Agency, and golf great Arnold Palmer gave keynote addresses to the fourth National Summit on Golf and the Environment here at the National Arbor Day Foundation conference center June 25. Whitman and Palmer also played nine holes at the foundation's new Palmer-designed environmental research golf course, Arbor Links.

Whitman's remarks, while complimentary to the strides made to forge cooperative efforts between golf and environmental interests, also challenged both groups to widen their influence on others.

"Arbor Links is proving the rule that golf courses that are cooperatively and properly designed, built and maintained can be good for the environment," said Whitman. "The mission should be to take positive lessons learned and let others replicate them."

The unique collaboration at Arbor Links brought Palmer Course Design, Landscapes Unlimited and the National Arbor Day Foundation together to build a course that will assess golf's impact on wildlife, water quality, wetlands and trees. The course features a conservation demonstration on each hole to show how golf and habitat are working together.

Whitman called on the industry to share the results of these efforts.

"You are bridging the divide, but you can't rest on your accomplishments," she said. "The greatest environmental challenges are educating the public to the benefits of environmental golf courses and how they can apply them at home by increasing wildlife habitats, using less water, fertilizer and pesticides, and educating young golfers on environmental issues."

Palmer followed Whitman by pointing out the steps that the golf industry has taken to become more environmentally friendly over the years.

"Back when I was six years old and started working on the golf course with my dad, the attitude about the environment was different," he said. "The attitude was 'just get the job done' and no one worried about the consequences of using pesticides like arsenate of lead or mercury.

"Today," Palmer continued,

"we do care and Arbor Links is a living laboratory for continuing research."

During the rest of the summit, speakers and delegates from both golf and environmental groups throughout North America

shared ideas and experiences on ways to better educate the golf industry, as well as non-golfers and government regulators, on the role and responsibility of golf courses to the environment and community.

"Golf courses are one of man's connections to the natural world, and as the world becomes more urbanized, this will be even more important. Golf is about an interaction of social, functional, and athletic activity, involving people, places and environments," said Terry Minger, president of the Center for Resource Management.

Summit participants agreed

there is an enormous need and opportunity to educate golfers, golf course staffs and management, non-golfers and governmental agencies at all levels, on golf and environmental issues. Each group requires a separate approach but is unified by a central thesis that a properly designed, built, and maintained golf course can be an environmental asset.

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Field days showcase the future of turfgrass

To say that the last few years have been tough in the seed business would be a drastic understatement. The turfgrass industry has been dealing with the oversupply caused by the AgriBioTech bankruptcy, the drop in golf course construction and the overall slowdown of the U.S. economy — a potentially disastrous triple whammy.

So far companies are taking the low times in stride, and citing the cyclical nature of the business, predicting an upturn in the near future.

While the business may move in cycles, research and development work must continue unabated for companies to remain competitive. No matter how depressed the market is today, companies must focus on the future to survive. This point was hammered home during June's annual turf field days in Idaho and Oregon.

Because it can take more than 10 years to bring a new turfgrass variety to market, research and development must be nearly constant. Jacklin Seed's research director Doug Brede has been working on the company's soon-



Andrew Overbeck, editor

to-be-released T-1 and T-2 bentgrass since 1994 (see article page 16). Turf-Seed's Crystal Rose-Fricker started working on selecting fescues and bentgrass for natural Roundup resistance more than 10 years ago (GCN July 2002).

Turfgrass breeders continue to search for new varieties to improve not only appearance and convenience, but also to resist diseases and be easier to maintain. Selecting turfgrass plants for salt tolerance and drought, herbicide and disease resistance is not for the faint at heart. As Rose-Fricker pointed out on a tour around the company's Pure Seed Testing facility, a lot of time and energy goes into trying to kill turfgrass. Plants are doused with salt water, sprayed with Roundup and injected with fungi. What survives this treatment makes it to the next level of testing and brings the industry one step closer to an improved variety.

Genetic modification, however, has the potential to speed up the process and change turfgrass as we know it. The big question is, will modified varieties be allowed to reach the market? At press time, the Scotts Co. and Monsanto were fighting

to gain approval for the production field testing of its Roundup ready bentgrass in Oregon (see www.golfcoursenews.com for an update), while Turf-Seed works to prevent the testing as it develops male sterile varieties of Roundup resistant turfgrass. The

development of Roundup ready bentgrass could slow the advancement of other genetic modification in turfgrass. While the size of the market for Roundup ready bentgrass may not be huge, the rest of the golf industry could benefit from turfgrass that was engi-



danger, according to Turf-Seed president Bill Rose, is the potential for genetically modified bentgrass to contaminate normal plants during the growing and production process. The result would be bentgrass seed that could not be sold in Europe and Japan.

As the debate rages on, industry insiders say holding back the

needed specifically to prevent dollar spot or completely out-compete *Poa annua*.

What will we see in the next 10 years? While there are still numerous issues to be addressed, genetically modified turfgrass will eventually make it to market as companies look to the future. The possibilities are seemingly endless.

POINT

Golf cars should be an optional part of the game

By Dr. MICHAEL HURDZAN

If Winston Churchill did call golf "a good walk spoiled," imagine his description of golf if you took out the "walk" part.

I have no problem using golf cars where the climate or terrain will not permit walking golf, or for golfers who because of age or disabilities cannot walk. But for these exceptions, I believe that golf cars should be a dispensable, or at least optional, part of the game. I further believe that golf cars often help developers accept, justify or rationalize dysfunctional spatial separation (i.e. long rides between holes and golf course features).

That aside, whether one approves or disapproves of walking golf has a lot to do with the pleasure or the value that each individual gets from the game.

I am an admitted purist who prefers the brand of golf found on historic and traditional golf courses in the United Kingdom, Australia and New Zealand. I classify rampant golf car use as part of the definition of North American golf, in addition to lush green playing conditions, sparkling white and perfectly manicured sand bunkers and ornamental accent plantings. In North American golf the emphasis is more on getting the ball into the hole in the fewest strokes, rather than the experience of the quiet exhilaration of walking through a sensually vibrant environment while striking a golf ball.

I have been blessed to be around golf for more than 50 years, beginning as a caddy at a family-owned nine-hole course before the age of golf cars. I was lured to a career in golf by the pleasant sensation and vivid memory of being part of a group of walking golfers. It was the soft banter of four-way conversation against the



Michael Hurdzan

Continued on next page

COUNTERPOINT

Golf cars are a necessary part of the game

By TOM FAZIO

Over the last 30 years, the use of golf cars has had a major impact on modern-day golf courses. Though I can understand the arguments of those who believe that cars are a detriment to the game and a hindrance to quality golf, I believe that, if done well, they can be incorporated into the golf course without having a major negative impact.

There are many pieces of property where, without golf cars, golf course construction would be impossible. Often times, location, the accessibility of caddies and/or the drastic elevation changes require the mandatory use of golf cars. Out of the approximately 16,000 golf courses across the continental United States, as many as 30 percent are on land that is challenging in elevation and features difficult terrain. The golf car allows people to traverse these properties making them viable for golf. Therefore, some 4,000 to 5,000 courses depend on golf cars for operation.

The most challenging aspect of creating new golf courses is integrating car paths. Although we deal with many site conditions including environmental and real estate concerns, the solutions are in most cases obvious. But integrating golf cars into the layout of the course can be difficult.

In the mid-1960s, a golf car was not necessarily considered in design. Paths were placed around some tees and some greens, but they were never a continuous path around a course. Full-course path systems have become almost commonplace only over the last 10 to 20 years.

I can remember visiting one potential client, and his first comment was, "We will not have any car paths on this golf course." After



Tom Fazio

Continued on next page

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Game should not be dependent on golf car revenue

Continued from previous page

backdrop of gently clanging golf clubs and the squeak of a real leather golf bag strap, echoing the cadence of our steps that drew me in. You could feel the topography of the golf hole as you strained a bit going up grades and then free-wheeling down them.

When golf cars are used, those things are lost and the game of golf simply becomes a matter of hitting the ball, finding it and hitting it again. Walking golf tunes your senses to the nature of things and the game seems more alive. Aside from the ethereal losses caused by golf cars, there are other troubling aspects.

First, most golf courses with predominant car use usually have extensive pathway systems, which are generally paved, and as a result, add a hard, unattractive line to the golf landscape. Hiding the paths usually requires either extra earthmoving and shaping or placing the paths so far from the sightline of the hole that the path is no longer conveniently close to the play areas, which in turn leads to slow play as golfers hike back and forth. Golf car paths are expensive,

adding hundreds of thousands of dollars to construction costs, which ultimately is paid for by golfers.

Golf cars can cause damage to the turf or compaction to the soil if driven off the path in the same area repeatedly. Golfers rarely treat golf cars as serious and dangerous motor vehicles and often drive them like four wheel-

ers, sometimes resulting in serious accidents. For all of these reasons, golf cars are serious sources of liability for golf courses operators and owners that require an extra vigilance on their part to ensure safety.

The most discouraging thing to me about golf cars is that so many golf course feasibility studies show golf car revenue as a

significant source of income. This is sad because golf is a wonderful game and should not be dependent upon golf car revenue to determine its future.

Again, I concede that some golf courses couldn't exist if golf cars were not used, but this should be the exception, not the rule. I am a Casey Martin fan, and I strongly support barrier-free golf courses for physically challenged golfers, and it doesn't bother me that some

fit people won't play golf if they can't ride between shots. However, I do believe that walking golf is more fun, as well as more stimulating and relaxing, and healthier than riding golf. I am not against golf cars, but I am against a mindset that doesn't ever allow for walking golf. ■

Dr. Michael Hurdzan is president of Hurdzan, Fry Golf Course Design in Columbus, Ohio.

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Cars a necessity

Continued from previous page

studying the site, I came to the conclusion that as much as I agreed with him, a car path system was necessary because of soil conditions and overall maintenance considerations. As a result, we designed an integrated trail system throughout the course that was used by both golfers and maintenance vehicles.

In the design of car paths, I maintain certain criteria. Car paths should never be a dominant design factor of a golf hole. Golfers should not see the path from the tee or the middle of the fairway, nor should paths interfere with normal golf shots. Placement of paths in relation to traffic flow and hazard placement is also important. For example, when water exists on both sides of a golf hole path placement requires serious consideration. In these situations where you put the path becomes a difficult and important part of the design.

This brings us back to the original question: Do golf cars negatively impact the game of golf? I look at a course as both a golfer and as a walker (I consider myself a walker). Regardless of the impact, positive or negative, in the real world, cars have become a necessary part of the game, and I adjust course design accordingly. ■

Tom Fazio is the president of Fazio Golf Course Designers, Inc. in Jupiter, Fla.

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BRIEFS

MOUNT SNOW GOLF CLUB NAMES PETREY

MOUNT SNOW, Vt. — The Mount Snow Golf Club, owned by American Skiing Co., has named Donald Petrey golf course superintendent. Petrey comes to Mount Snow from Keystone Resort in Keystone, Colo., where he spent the last two years as the assistant superintendent. At Keystone Resort, Petrey managed a crew of 22 and oversaw the Audubon Cooperative Sanctuary program.



Donald Petrey

CARLS ELECTED CALIFORNIA CGCSA PRESIDENT

SUNNYVALE, Calif. — Gary Carls, CGCS, golf operations supervisor for the City of Sunnyvale, has been named president of the California Golf Course Superintendents Association (CGCSA) at their annual meeting in Palm Springs. The CGCSA comprises six regional chapters throughout California and boasts more than 2,000 members. In 2000, Carls served as president of the Golf Course Superintendents Association of Northern California, the state's largest chapter.

AMERICAN SOCIETY OF IRRIGATION CONSULTANTS CHOOSES BARRETT

TUSCON, Ariz. — James Barrett, president of James Barrett Associates in Roseland, N.J., was elected president of the American Society of Irrigation Consultants at the group's annual conference here. Barrett has been involved in the irrigation industry since joining Robert Trent Jones Inc. as an irrigation designer in 1972. He started his own company in 1985. During his term, Barrett will continue to help further the understanding of how well-designed irrigation systems that use the latest technology can save water, energy and money. He also will continue to encourage local, state and federal lawmakers to work with irrigation consultants to develop meaningful irrigation regulations.



Editorial Focus: Fertigation

Superintendents overcoming fertigation learning curve

By ANDREW OVERBECK

While fertigation and injection systems have been available for many years, more superintendents are tuning into the benefits of applying liquid fertilizers and other nutrients through their irrigation systems.

Once overcoming the initial learning curve, superintendents are finding that fertigation units not only save time, labor and fertilizer costs, but also can improve playing conditions by constantly providing low levels of nutrients to turfgrass.

At Ravenwood Golf Course in Victor, N.Y., the facility's owner turned superintendent Peter George on to the value of fertigation.

"Our owner was actually the one who pushed the fertigation system on me," said George. "Once I saw the results of how fast the greens came in using the fertigation system, I started using it more during the grow-in. Now that we are fully operational, we use it for 60 percent of our fertilization."

George doesn't see that level going any higher, however, because his first application in the spring must be made before he can turn on his irrigation system.

"I go out in the spring and put a half-pound of nitrogen on the fairways with a low-quality granular and then I spoon-feed with the fertigation system all summer long," he said. "As a result I don't have peaks and valleys like other courses in the area. With the constant feed, I get good color and quality."

Down the road at Irondequoit Country Club in Rochester, N.Y., superintendent Rick Holfoth also is learning how to best use his new fertigation system that was installed as part of a \$1.5 million golf course and irrigation system renovation.

"I had been moving more toward using liquid fertilizers and plant growth regulators," said Holfoth. "When it came time for a new irrigation system, this was my



Peter George uses his fertigation system for 60 percent of his fertilization needs at Ravenwood Golf Course.

chance to add fertigation. So far in our first season, we are using it for 70 percent of our fertilization."

As George and Holfoth sort out their fertigation programs, other superintendents, like Ryan Porter at Old Ranch Country Club in Seal Beach, Calif., depend on their systems to keep their courses up and running.

Porter uses a fertigation system to distribute eight tons of gypsum monthly onto the 18-hole layout to help fight the waterphobic, high-sodium soils. Using liquid fertilizer for foliar feeding also helps him

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Washington courses providing habitat for burrowing owls

By ANDREW OVERBECK

PASCO, Wash. — As a three-year long study to determine if golf courses can provide suitable nesting habitat for burrowing owls draws to a close, there are promising signs that the species of concern is finding a home on the links.

"We are excited that the burrows are being used, both as satellite burrows and as nests," said project coordinator Matthew D. Smith, a graduate student at the University of Arizona. "We are optimistic that over time the number of owls will increase and expand to use more of the artificial burrows."

Burrowing owls inhabit short-grass open country and use the abandoned burrows of badgers, ground squirrels and coyotes for their nests. As those animals are driven away by development researchers suspect the owls may be left with fewer burrows. Since golf courses are open spaces with short grass, they represent potential habitat. The owls provide some benefit to courses because their diet includes pests such as voles, mice, pocket gophers and beetles.

Dr. Courtney J. Conway, a University of Arizona wildlife ecologist received a three-year, \$75,000 grant from the United States Golf Association in 2000 (GCN May 2000) to install and monitor artificial burrows at five area golf courses.

The researchers built artificial burrows at a variety of locations on golf courses to determine how the owls would tolerate golfers and maintenance activity. The artificial burrows are constructed of 10 feet of irrigation pipe, which leads to an upside-down five-gallon bucket that is buried three feet underground.

So far Horn Rapids Golf Course in Richland and Sun Willows Golf Course in Pasco have had the most success.

"At Horn Rapids there are five burrows



Field coordinator Audrey Sanfaçon and Sun Willows superintendent Ron Kuhns discuss the location of owl nests. A burrowing owl on the 15th hole at Sun Willows (inset).



Photos by Andrew Overbeck

with signs of use and one nest burrow," said field coordinator Audrey Sanfaçon. "At Sun Willows we have a pair raising young in one artificial burrow, unpaired resident males at

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Seeded bermudas are narrowing the quality gap

By ANDREW OVERBECK

After nearly a decade and a half of work, turfgrass breeders have introduced seeded bermudagrasses that are getting closer to the quality of the best vegetative varieties. Beyond the obvious cost savings associated with using seed versus sod, some seeded varieties also require less water and have better cold tolerance.

"In the past seeded bermudagrass was pretty far away from vegetative varieties but the gap is closing," said Kevin Morris, executive director of the National Turfgrass Evaluation Program based in Beltsville, Md. "Seed is cheaper to use, and it has better cold hardiness. If you want to establish something quickly they are a good choice."

Seeds West's Princess seeded bermudagrass has topped the NTEP quality rating in recent trials for seeded varieties.

According to Seeds West director

Continued on page 9

Audubon Int'l certifies 500th sanctuary

SELKIRK, N.Y. — Audubon International has certified its 500th Audubon Cooperative Sanctuary.

"In an era where we see increasingly complex environmental problems, Audubon International has dedicated itself to helping people from all walks of life be part of the solution," said Audubon International president Ronald Dodson. "Certified Audubon Cooperative Sanctuaries exemplify what can be done when people make a

commitment to good environmental stewardship and sustainable resource management. We applaud the many golf courses that are participating in this crucial effort."

Certified properties account for more than 173,000 acres of land that is managed to protect wildlife and environmental quality and includes backyards, schools, golf courses, cemeteries and a variety of corporate sites.

TOOLS OF THE TRADE

Rusnic guides Bear Brook through rough times

By ANDREW OVERBECK

FREDON, N.J. — When Jim Rusnic left Hershey Country Club in Hershey, Pa., to take his first superintendent position here at Bear Brook Golf Club, he had no idea how many challenges awaited him.

“Construction on the course started in 1997, they blasted and moved stuff on the front nine, and then the owners ran out of money,” said Rusnic. “When I was brought in with International Golf Maintenance (IGM) in August 2000, the course was still unfinished. The owner could have opened it but didn’t have the permitting.”

Rusnic spent the year cleaning the course up and getting it on a proper maintenance regime.

“In 2000, the front nine was a year-and-a-half old but the greens were being mowed at a quarter-inch and the fairways at three-quarters of an inch. Thatch was everywhere. The aerifier had three inches of dust on it,” he said. “The back nine had been seeded the previous fall and was extremely immature and two fairways never really healed from washouts. We basically rebuilt it.”

Holes 12 and 16 were rebuilt and Rusnic concentrated on getting the turfgrass down to playable cutting heights, cutting the tree lines back and finishing the fine construction work.

However, as time dragged on and work continued the semi-private course, which is part of an 86-home housing develop-

ment, still didn’t open. Then in October 2001, Gale & Kitson LLC stepped in and bought the troubled property. IGM lost the contract for the course, but Rusnic was rehired by Gale & Kitson to head up a \$1 million Roger Rulewich renovation of the layout.



Jim Rusnic

Rusnic and golf course builder Earth Force Construction widened several holes on the front nine, blasted out shale mounds, entirely rebuilt the eighth hole, rebuilt the 12th

fairway and reworked the irrigation system.

“We also expanded the rough areas and made the course much wider and more friendly,” said Rusnic. “We put in fescue on the banks and put a bluegrass/ryegrass mix on the flat areas. In addition we thinned out the trees and cleaned up rocks on holes four and five.”

The course opened for play May 19, but there is more to do, said Rusnic.

“We have come a long way, but there is still a long way to go,”

he said. “We are installing a three-tiered waterfall on the par-3, 15th hole and there is a lot of detail work left to do. We still have to level off the irrigation heads on the new holes and keep the weeds out of the fescue.”

With the course finally open, Rusnic also is working to finalize maintenance practices.

“I am still treating it as a grow-in and hitting it with a lot of fertilizer,” he said. “We are getting into aerifying,

‘Thatch was everywhere. The aerifier had three inches of dust on it’
— Jim Rusnic

RUSNIC’S TOOLS

GREENS MOWERS: 6 John Deere 220A, 2 John Deere Triplexes

TEE MOWERS: 3 John Deere 220A

FAIRWAY MOWERS: 2 John Deere 3215A

ROUGH MOWERS: 1 Jacobsen AR-2500, 1 Toro 80” rotary, 1 John Deere

2653A, 1 National, 1 Steiner Deck Mower

RIDING BUNKER RAKE: 1 Toro Trap Rake

TURF UTILITY VEHICLES: 2

Kawasaki Mules, 2 John Deere Gators, 1

Cushman, 5 Yamahas

VERTI-CUT REELS: 1 Diamond Cut Triplex

AERIFIERS: 1 John Deere 1500, 2 John Deere 800

TOPDRESSERS: 1 Meter-Matic pull-behind, 1 Jacobsen Cushman mount

TOURNAMENT SPEED ROLLER: 1 DMI

REEL GRINDER: Foley United

BEDKNIFE GRINDER: Foley United

IRRIGATION PUMP STATION: 3 75-hp Flowtronex pumps, 500 gpm each

IRRIGATION SYSTEM: Rain Bird

GOLF CAR FLEET: 54 Yamaha gas

FLAGSTICKS: Standard Golf

COMPUTER & ACCESSORIES: Dell

PRIMARY HERBICIDE: Momentum

PRIMARY INSECTICIDE: Merit

PRIMARY FUNGICIDE: Banner Maxx



The 11th hole at Bear Brook Golf Club.

PRIMARY SLOW-RELEASE FERTILIZER: Lesco SCU

CANNOT LIVE WITHOUT: Irrigation

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dethatching and topdressing programs because some of the fairways sit on solid shale. We have to keep wetting agents on them and do foliar feeding.”

The aerification program on the shale fairways may have cost Rusnic some arms on his aerifier, but the dividends are starting to show.

“When I first came here you could cut a plug and pull the turf right up because the

roots were so shallow,” said Rusnic. “Now I can’t pull it out of the ground because the roots are pushing through the rock.”

Rusnic knows that good conditioning is going to be key to the success of the layout.

“This is going to be a high-end semi-private course, and there are a lot in our area that we have to compete with. We have to make them want to come back here and play,” added Rusnic.

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Editorial Focus: Fertigation

Fertigation market expanding

By ANDREW OVERBECK

Fertigation and nutrient injection system use has expanded over the last 10 years, primarily due to the growth in new construction as many golf course designers and irrigation architects specified the systems to help with grow-in. Now that an estimated 10 to 20 percent of courses in the U.S. have fertigation systems, suppliers are working to improve their offerings, tackle the renovation market and target lower-budget courses.

Efforts are being placed on education, better technology and on-site mixing.

"The technology and the concept is growing by leaps and bounds," said PlantStar's Ed Nash. "Courses are starting to recognize the value of injection systems beyond grow-in. They are a great tool for the long-term maintenance and management of turf."

With new construction down, suppliers are finding that existing courses are looking to fertigation to get an edge on competition and save money.

"The percentage of people ordering fertigation systems with their pump stations is certainly up," said Allen Olson, who runs Flowtronex's Nutrifeed division. "They are looking at how they can save money and fertigation is a good tool to do that."

According to Turf Feeding Systems' Michael Chaplinsky courses can save an average of \$14,000 to \$40,000 a year by installing a fertigation system that costs between \$7,000 and \$20,000.

"The fertilizer is less expensive, you don't have to use the labor or machines to spread or spray fertilizer, and the feeding is light so you don't have flushes of growth that require more frequent mow-

ing," he said. "You also use less water, save electricity and cut down on pump station use."

Because of the education challenges involved in fertigation systems, regional supplier Moyer & Son in Souderton, Pa., offers what it calls "circle support." The company not only installs fertigation systems and provides the liquid fertilizer, but it also helps superintendents use the units properly.

"Following up is important," said John Ripp, golf course sales manager. "We are teaching people how to run the equipment and write programs and be efficient in the use of the systems."

DISSOLVING THE BARRIERS TO MARKET

One of the largest barriers to growth in the market is the belief that you need a high-tech irrigation system to use fertigation properly.

"It doesn't need to be a high-tech system," said Chaplinsky. "With wind moving the impact zone and light feeding every time, the evenness is surprising. We can make it work with any reasonably designed system and save the course money."

The other large stumbling block is the fact that many parts of the country do not have access to liquid fertilizer. Suppliers have solved that problem by offering mixing systems that use soluble fertilizer packs to create individual batches of liquid fertilizer.

Nash's PlantStar has been offering a mix-



Turf Feeding Systems' new Auto-Mixer

ing system since 1986 and other companies are working on similar units. Turf Feeding Systems is rolling out its Auto-Mixer this summer that allows courses to make four to five days' worth of supply at a time. Flowtronex is working on an agreement with soluble fertilizer maker SQM North America to provide courses with a ready supply that can be mixed in a blending pump.

With these moves, suppliers are working to expand fertigation use. However, the strongest motivator is word of mouth. "Nobody wants to be the guinea pig," said Olson. "But when you have one superintendent in an area who jumps out there and has success with it, nobody wants to be last in line."

Overcoming fertigation learning curve

Continued from page 6

get better nutrient uptake in the turfgrass.

"If I don't put out gypsum, we will have hard spots develop on our fairways within three to four weeks," said Porter. "It is one of our right hands."

"We have gypsum in the water at all times, and we fertilize through the system every night of the week except for the weekends," he continued. "Forty per-

cent of our fertilization is done through fertigation."

With such complicated soil structure, Porter has found that fertigation makes the management of the course much easier. "Without it I would be spending a lot on labor," he said. "The ease of application is also a plus. I just tell a guy to load the machine every night."

INFRASTRUCTURE REQUIREMENTS

All three superintendents caution that a fertigation system requires significant investments in infrastructure.

At Irondequoit, Holfth expanded his pump house from eight by 12 feet to 28 by 26 feet. "We more than doubled the size," he said. "We had to fit in two 1,000-gallon tanks, one 500-gallon tank and one 300-gallon tank. Plus we had to do the containment to make sure if a tank leaked it would not go into the ground or the wet well."

A good quality irrigation system also helps, said George.

"A reliable system is necessary," he said. "And one with a central controller makes it easier. We have a new Rain Bird system that can calculate the number of gallons I am putting out, so it makes it easy to calibrate for fertigation."

The final piece of the puzzle is getting liquid fertilizer to the pump station.

Holfth has a gravel service road that comes right up to the pump house, but George wound up running a 2,000-foot two-inch feeder line from a parking lot to the pump house so the pressurized delivery truck could recharge the storage tanks.

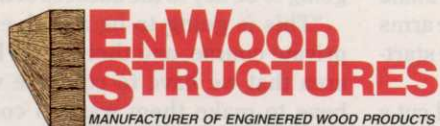
As more companies produce water-soluble products, however, more superintendents will likely follow Porter's lead. "We buy all soluble now," Porter said. "It is one-fourth the price of regular fertilizer." ■



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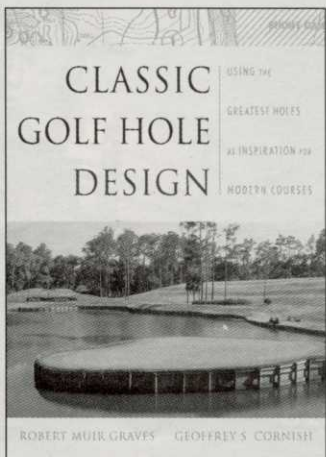
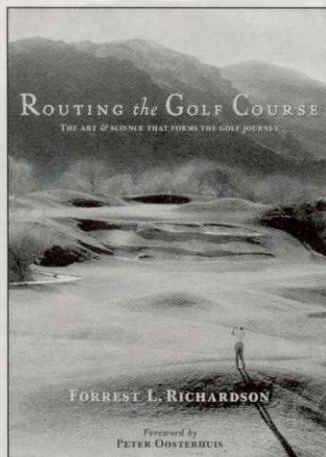
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—From the Foreword by Damian Pascuzzo past president of the American Society of Golf Course Architects

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Seeded bermudagrass improving

Continued from page 6

of international sales Tom Bodderij, Princess is the first seeded type that compares with the quality of 419 or 328 and it has the added advantage of fast germination.

"Seed is easier to get into the ground," he said. "Sod is very time- and labor-intensive and with seed you have mowable grass in 45 days." Bodderij said studies at the University of Arizona also showed that Princess uses 19 to 25 percent less water than vegetative varieties.

Turf-Seed's Dr. Melodee Fraser also has been busy perfecting seeded bermudas.

"We have improved the quality with shorter inner nodes and finer leaves," said Fraser. "You can now mow them much shorter and still maintain turf density."

While Turf-Seed introduced its first seeded variety called Savannah in 1998, it is close to rolling out Transcontinental, which will offer better winter survivability.

In addition to improving quality, Jacklin Seed's Susan Samudio has also been working on improving winter survivability with its Southern Star, Sun Devil 2 and Jackpot varieties.

"Southern Star has the best cold tolerance of the three," said Samudio. "It can survive in the lower transition zone, especially

if they have time to harden off."

Although Seed Research of Oregon (SRO) already has Yukon, a variety that was developed by Oklahoma State University and is marketed jointly with Enid, Okla.-based Johnston Seed Co., the company is working on several new cold-tolerant varieties. According to SRO general manager Bill

Dunn, SR 9500 and 9554 are coming out soon, as is Riviera, a synthetic variety that was selected on the basis of turf quality and transition zone adaptation.

SLOW TO CATCH ON

Despite the advantages provided by these new seeded varieties, golf courses in the U.S. have been slow to catch on.

"In Europe and Japan sales are better because they don't have

an established sod industry and there are many regulations on sod imports," said Seeds West's Bodderij. "Here sod is readily available and is pretty cheap. But now that our seed is in full production it is half as expensive as it was two years ago, so it is now a good alternative to sod."

To some, seeded types still come up short on quality.

As a result, Jacklin's Samudio

said her work on seeded types was slowing down. "We are not doing much work right now, we have no new varieties coming out next year and we are taking a slow approach to the whole program."

Others are plugging ahead with work. "We are screening plants for better salt and shade tolerance," said Fraser. "And we are always working on improving winter survivability." ■

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Burrowing owls

Continued from page 6

two other burrows and signs of use at three other burrows."

The owls and the golf courses are certainly learning to coexist.

One burrow at Sun Willows has 15 golf balls in it, according to Sanfaçon, but the owls remain active at the site. Sun Willows also will be expanding its irrigation system this fall and superintendent Ron Kuhns is doing what he can to work around the burrows.

"We will be expanding our irrigated area from 90 acres to 112 acres," said Kuhns. "Golfers love the owls and they are very much a part of the course. We don't want to disturb them now that we have them."

The researchers are providing Kuhns with a map of the active burrows on the course so he can make sure the irrigation system is designed around the nests.

After the completion of the study, Smith and Dr. Conway plan to distribute a pamphlet that will help superintendents create burrowing owl nests on their courses.

"We have witnessed the increasing owl population at Sun Willows and our success so far supports the potential for golf courses to help reverse suspected population declines of burrowing owls across the West," said Smith. ■

Lahontan strives for sustainability

Continued from page 1

future generations. While many question whether golf courses can be successful through an organic program, Kosak and his staff have stepped up and done just that. So far, the results are convincing.

"When we began construction in 1996, we took soil samples from the site in order to learn where our soil structure would

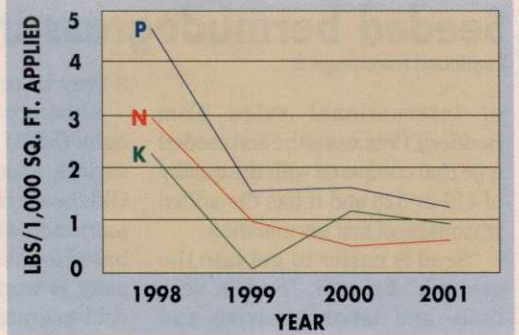
need to be enhanced," said Kosak. "We then began to develop a plan that would help to build up our soil, which in turn will be more beneficial to our turf. The nutrients necessary for plant growth exist naturally in every acre of land. The challenge is to manipulate the soil chemistry in order to make these nutrients available to the plant. This

is the fundamental idea behind sustainable agricultural practice."

Kosak's ideas are not revolutionary, but they are cutting-edge in an industry that over the last 15 years has strived to reduce synthetic chemical use but has hardly made strides toward an organic approach to maintenance. The pressures of visual appeal, economic accountability and the lack of information about

alternatives have kept most turf managers from finding an alternative to synthetics.

Kosak began to realize the need to find an alternative to synthetics while he was working at a mountain course in Colorado in 1984. He began to



Lahontan's organic program has reduced fertility levels.



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wonder why native grasses around his course appeared each spring, thrived through the summer and then disappeared in winter all without the need for artificial help. His interest to find out why this could not be done for the turf on his course led him to extensive research on his own.

At Lahontan Golf Club, Kosak has had the chance to put his years of theory and practical knowledge to full use. Since the course was planted he has used a combination of conventional materials and alternative materials to build not only healthy turf but also create better soil conditions.

"In many ways we are not grass growers, we are dirt growers. Our fertilizer budget is on par with most golf courses, but where we spend more money is in our soil amendments," said Breen. "These are applications of materials that change our soil chemistry in order to bring out the naturally occurring phosphorous and nitrogen. Through the years we have been able to dramatically lower our synthetic applications as our soils improve. At some point our goal is to develop soils that will not need any synthetic applications."

Both Kosak and Breen are continually researching and looking for alternative products to use at their course. Along with chicken crumbles they have used volcanic dust from Canada as a phosphate alternative, a livestock feed known as Fertile Fiber, and a local source of compost material from an organic dairy farm co-op in the nearby Washoe Valley.

Breen and Kosak feel that the interest in organic turf maintenance is growing. While more courses would like to be more organic, Breen cautioned that it takes a solid commitment from both the superintendent and the ownership of a course.

"It is a strong leap of faith to go to a more organic approach. It has to be looked at as a long-term program with the goal of curtailing and eliminating synthetic materials," he said. "We have some advantages with our climate in the mountains that control many pathogens, and through the solid support of the developers here. We hope that at least we can become an example that provides factual evidence that this type of program can be successful." ■

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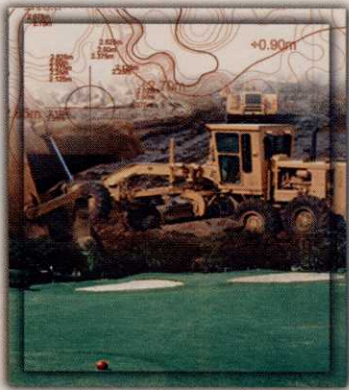
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Editorial Focus: Design and Construction



BRIEFS

EASTERLY HONORED AT INDEPENDENCE CLUB OPENING

RICHMOND, Va. — Former USGA and Virginia State Golf Association (VSGA) president Harry Easterly Jr. was honored by his colleagues at the opening of Independence Golf Club, the development of which Easterly spearheaded for more than a decade. Among those in attendance to honor Easterly were USGA president Reed Mackenzie and vice president Fred Ridley, as well as former USGA presidents Sandy Tatum and Bill Campbell. Course designer Tom Fazio sent remarks via video. Independence Golf Club is owned by the VSGA Foundation and operated by KemperSports Management.

BATES TO RENOVATE BELLEAIRE'S ROSS DESIGNS

BELLEAIRE, Fla. — Belleaire Country Club has hired golf course architect Gene Bates to complete a 36-hole renovation. The club's East and West courses, originally designed by Donald Ross, will be renovated without changing the routing. Bates will focus on recapturing the character of the Ross bunkers and expanding the tee and green complexes, while revitalizing the grassing of the courses to bring back the original aesthetics of the layouts. Construction on the East course, built in 1915, will begin in 2003. The West course, considered by many to be the oldest course in Florida, originally built in 1897, will undergo construction in 2004.

TOLL BROTHERS PROMOTES RASSMAN TO VICE PRESIDENT

HUNTINGDON VALLEY, Pa. — Toll Brothers Inc. has promoted Joel H. Rassman to executive vice president. He will also retain his former titles of chief financial officer and treasurer. Rassman, who joined Toll Brothers in 1984, has steered the company through its 1986 initial public offering, two equity offerings and 11 debt offerings. Toll Brothers, which was founded in 1967, is a developer specializing in luxury single-family and attached home communities and master-planned multi-product residential golf course communities. The company also owns and manages several golf courses. In 2001, the company achieved revenues of \$2.2 billion.

New president outlines ASGCA goals for 2002



DALLAS — Jay Morrish of Dallas, who was elected president of the American Society of Golf Course Architects (ASGCA) at the society's annual meeting in Santa Barbara, Calif., brings to the position nearly 40 years in the business. In his career, Morrish has worked with the likes of Robert Trent Jones, George Fazio and Jack Nicklaus. Currently, he works on his own with his son, Carter.

Golf Course News caught up with Morrish in early July to talk about his vision for the organization and the profession as a whole.

Golf Course News: What are the ASGCA's goals for this year?

Jay Morrish: The ASGCA has always stressed education in various areas. We want to help golf course developers understand the total process of building a golf course, including hiring an architect, obtaining zoning permits, dealing with government agencies, recognizing and dealing with environmental issues, searching for finance, securing proper market studies, and any other endeavors necessary to create a successful golf course.

GCN: What challenges will the ASGCA face in the next year, and how do you plan to address them?

Morrish: We do not want to see golf stagnate. With the state of the economy and the ongoing fear of more terrorist

activities, golf may not have as high a priority in people's lives as it has in the past. It is our challenge to generate renewed interest in golf. There is a desperate need for more affordable golf. We must continue to find ways to design interesting golf courses for less money, and to ensure that these savings are passed on to golfers. We must make golf available to lower income groups.



Jay Morrish

GCN: What is the one thing on your agenda that you feel must be accomplished for ASGCA during your term?

Morrish: These are trying times, and I don't want our young members to suffer in the weak economy while only a privileged few prosper. We need to help promote all ASGCA members. We need to make the world aware that ASGCA is alive and well, which it is. We need our members to become involved with their local golf communities and in so doing promote golf and golf course architecture.

GCN: What role will concerns about

Continued on page 13

Society touts recent initiatives

CHICAGO — Two recent initiatives announced by the American Society of Golf Course Architects (ASGCA) that address some of the issues new president Jay Morrish has raised are the launching of an Internet suppliers directory and the offering of one-day golf course reviews.

The Online Suppliers Directory will feature companies that provide products and services related to design, construction and maintenance of a golf course. Suppliers will be allowed to control their message while communicating their full range of capabilities. Architects and others in the business will be able to search by category to find information on products.

The one-day golf course reviews stem from interest in the ASGCA's Remodeling University seminars. At those seminars, attendees were interested in having members visit their courses to give specific recommendations. Morrish said the society decided to formalize a one-day visit to provide the course with ideas for a remodeling plan. The ASGCA member will forego his or her normal fee for this service in return for a donation to the ASGCA Foundation.

The offer applies to both public and private courses. Morrish said he hopes many municipally owned courses will take advantage of the opportunity to have a qualified ASGCA member analyze their facilities.

Long-awaited course well received

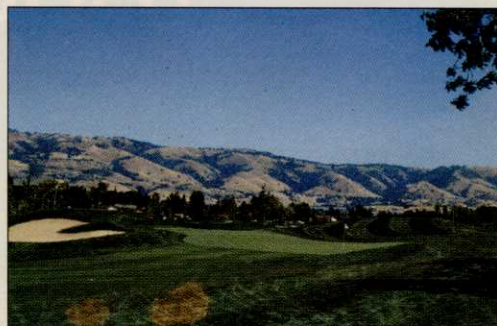
By DOUG SAUNDERS

SAN JOSE, Calif. — Las Lagos Golf Course, the first new golf course to be built in the city of San Jose in 30 years, opened for play in April, bucking the trend of recent developments in the West. While most new golf courses are high-end courses that are vehicles to drive real estate sales, Los Lagos Golf Course was created to provide a

quality golf course at an affordable price. The city-owned project has been 15 years in the making and has gone through some rocky times, but the final product has been well received by golf-starved city residents.

The 5,393-yard course is laid out over a 100-acre parcel of land on the south side of San Jose. The project includes the golf course, a clubhouse with a large outdoor patio, a two-tiered lighted driving range and a pedestrian/cycle trail. The entire complex is meant to be a cornerstone to the city's efforts to create more recreational offerings while reclaiming a neglected piece of city property that had slipped into an unsavory state. This park-like setting along

the banks of Coyote Creek will preserve the sensitive lands from the unsightly illegal dumping and other activities that had overrun the area.



Fifteen years and an estimated \$25 million later, San Jose's Los Lagos has become a reality and has been well received by players since opening in April.

The completion of the Los Lagos project took a team effort involving the city of San Jose and a partnership team comprising Northern California golf development and management firm CourseCo Inc. and Capitol Development Group, a San Jose-based financial services and real estate firm.

"The Las Logos project was an opportunity to create a partnership with the city in order to provide the spectacular recreational facility that ranks with some of the best in the area," said John Zamora Sr., Capitol's president.

Brian Costello, the lead designer and partner with JMP Golf Design Group, had to carefully craft golf holes together in order to develop a full feeling to the par-68 layout. The course is a mix of nine par-3s, four par-4s, and five par-5s, one of which plays more than 580 yards. "We tried to create a challenging route of play and also

Continued on page 13

Jones protégé redesigning mentor's courses

HILTON HEAD, S.C. — Golf course architect Roger Rulewich has been contracted to lead a \$3 million redesign and renovation of the Robert Trent Jones course at Palmetto Dunes, which is owned by Greenwood Development Corp.

Greenwood selected Rulewich based on the architect's work with Jones, which began in the 1960s. During that time, Jones originally designed and constructed Palmetto Dunes.

Among the tasks Rulewich will tackle is the addition of permanent junior tees. Rulewich is reshaping and restructuring the tees, greens and bunkers, elevating or reshaping select fairways, improving drainage and lengthening the course by approximately 200 yards.

Palmetto Dunes isn't the only Jones course Rulewich is redesigning. He is also involved in a similar project at Tucker's Point Club in Harrington Sound, Bermuda, where he re-contoured all 18 greens, approaches and surrounds.

Ten men's tees, seven ladies tees and 20 new bunkers have been built. Six bunkers have been doubled in size. Rulewich also added five new holes, a practice putting green and a short game practice area. The redesigned course is open now, with a new clubhouse and hotel planned.

Communicating with members a top priority

Editor's note: This is the third in a series of articles by Willoughby Golf Club superintendent Kevin Downing outlining the renovation process at the Stuart, Fla., club.

By KEVIN DOWNING

STUART, Fla. — The information phase of a reconstruction project is the most important component of the entire process.

Keeping members or golfers informed of critical timetables and alterations is paramount to their understanding of the enhancements being made to their course. Those of us in golf course management realize that the changes will make the course much better, however members often view the work as an inconvenience to their golf activity.

Being upbeat about the benefits can make even the biggest doubters your best allies during the pre-construction phase. Here at Willoughby Golf Club we used a variety of methods to communicate the impact of the project:

- Light-hearted notes were posted in the locker rooms five months prior to construction to prepare the membership for the changes at the course.

- Four months prior to the commencement of the project, the greens chairman gave a presentation and preliminary overview at a membership meeting.

- We held a special meeting six weeks prior to the start of construction and we presented graphics and information about the contractor.

- Question-and-answer sheets were available, providing in-depth descriptions of the scope of the work.

- Weekly progress reports are being posted on a neighborhood/in-house community television channel.

- Monthly updates are given in the club newsletter.

Throughout the information phase we focused on the items that members would be able to visualize once the course reopens. Talking about drain lines and soil components can be very boring to members so make sure that you emphasize the positive aspects that will enhance playability and aesthetics.

•••

The bidding process and the development of construction specifications can make or break a renovation project. We chose to bid with six different companies who all had good track records.

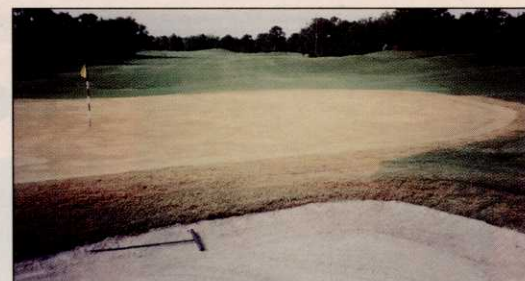
Pre-qualifying contractors by monitoring their results from

previous projects within your area is essential. Approximately one year prior to the commencement of the job, each company was invited to a personalized tour of our facility and was presented with a breakout of the construction specifications. After receiving all bids, we narrowed the selection to

two contractors and began a second round of negotiations. We continued to allow for substitutions to the specifications as we monitored various vendors and supplies. It is amazing how long the contractual and legal reviews can take and, unfortunately, we only finalized the contract just four months

prior to the start of the job.

Next month, I will focus on some of the pitfalls involved with a multi-contractor job and the importance of coordinating your staff with the workload.



Letting the membership know that the greens were going to be sprayed out prior to closing was a major concern to the board of governors



BUNKER RENOVATION: CASE STUDY #27

Jack used to struggle with his maintenance budget. He always looked for ways to

control costs yet deliver results. Over the years, he implemented many

new methods and routines. His bunkers were always a problem.

After most storms, he would spend \$1,800 to \$2,500 on labor,

repairing water damage on his bunkers. Jack was looking for answers to

his bunker problem and found a solution that works.

TOUGH DECISIONS ..

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Morrish outlines ASGCA goals

Continued from page 11

technology play in the society's initiatives?

Morrish: Technology is changing the game of golf rapidly. Twenty years ago we could design 7,100-yard golf courses that would demand that all 14 clubs be used by the world's greatest players. That is what golf course design should demand. Today, a

7,100-yard golf course is a pitch-and-putt course for the touring pros. Some of our most famous and greatest courses have been rendered defenseless because of new technology. We are now forced to build courses with wider corridors for safety. This means more land use and higher construction costs for developers. Unfortunately, these costs will ulti-

mately be passed on to the golfer.

GCN: What trends have you seen related to renovation/restoration versus new course construction, and do you expect these trends to continue?

Morrish: For the past 10 or 12 years, golf course construction has accelerated well beyond anything seen in the history of golf. As more golf courses mature, more remodel work will become necessary – not because the

courses are bad, but because golf courses are living, breathing organisms that need attention like all other organisms. Most courses need a little tuning every 15 years or so. It is a proven fact that during economic downturns, golf course remodeling has stepped to the forefront. Therefore, we expect more renovations to take place in the short term, while the economy regains momentum.

GCN: What made you choose

to pursue golf course design?

Morrish: I loved the game of golf, but couldn't beat anyone. I decided that somehow I had to tie my career to golf, and since it couldn't be as a player, design seemed like a good choice. Several architects told me to return to school and obtain a degree in landscape architecture or a related field. I took that advice and then went to work for Robert Trent Jones. ■

— Derek Rice

San Jose course well received

Continued from page 11

conservative bump-and-run approaches to holes so that the course would be playable to all levels of golfers who will use this city owned course," Costello said.

The city spent an estimated \$25 million over the 15-year period to bring this course online with much of that expenditure covering the years of debate and planning needed to secure public support. Hard cost for the golf course, clubhouse, driving range and infrastructure were estimated at around \$13 million.

JMP developed feasibility studies for a golf course at the site 15 years ago and then began to work on the course design after winning the design contract.

"We developed 20 different routing schemes and went through a lot of debate on where to locate the clubhouse, how to protect the creek, where to put parking and how to develop a course that had the same shot values of a championship layout," Costello said.

The major contractor for the construction of the course was GBS Construction of Santa Clara.

"There was an excellent communication stream between the designer and the field crews, which helped to move this project along," said Dan Garson, president of GBS Construction.

All the greens were built to USGA specs and CourseCo, which was responsible for the grow-in phase, made special effort to bring the course up to the highest standards.

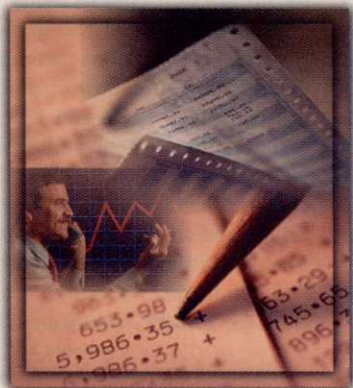
"We had to construct and maintain the course according to 16 different environmental plans, which include everything from sediment management to bullfrog habitat management," said Ray Davies of CourseCo.

The course has been well received not only for its low rates of just \$29 during the week and \$42 on weekends, but also for the quality conditions.

"A private firm could never make such a large investment pencil out to work with such low fees, but the City of San Jose, to their credit, looked at this course as a long-term investment to reclaim neglected land," Costello said. ■



SERIOUS SOLUTIONS



BRIEFS

ZABRISKI NAMED DIRECTOR OF GOLF AT OLD PALM

BONITA SPRINGS, Fla. — Bruce Zabriski has been named director of golf for Old Palm Golf Club in Palm Beach Gardens. Old Palm is a new private golf club and community designed by Ray Floyd and under development by WCI Communities Inc. Most recently, Zabriski served as head professional at Trump International Golf Club in West Palm Beach.

I.R.I. NAMES PALMER TO LEAD ARIZONA OPERATIONS

RANCHO SANTA FE, Calif. — I.R.I. Golf Group has named Dennis Palmer vice president of Arizona operations. Palmer will oversee the three I.R.I. owned and operated Arizona properties—Forty Niner Country Club, San Ignacio Golf Club and Arizona National Club—based in Arizona. Most recently, Palmer served as general manager and director of golf at the Links Continental Ranch.



Dennis Palmer

INTRAWEST MOVES BAKEMAN TO SOUTH MOUNTAIN

SCOTTSDALE, Ariz. — Intrawest Golf has named Mark Bakeman director of golf at The Raven Golf Club at South Mountain. The 20-year PGA veteran has worked for Intrawest for three years, most recently as director of golf at Tucson-based The Raven Club at Sabino Springs. Bakeman's move to South Mountain comes in the wake of a number of recent transactions for Intrawest in the Arizona market. Since November 2001, the company has added two courses to its portfolio, as well as a golf course development project in the West Valley.

GOLFSWITCH NAMES NEW CEO

SCOTTSDALE, Ariz. — GolfSwitch, a division of Spectrum Golf Inc. has appointed Damian J. Greco CEO. Greco comes to GolfSwitch from e2e Golf Solutions, where he was the company's senior vice president of corporate development. GolfSwitch provides products and services to golf course owners.

Survey shows renewed interest in acquisitions

By LARRY HIRSH

This year's results are in from the survey my course appraisal/brokerage firm, Golf Property Analysts, has done each spring since 1998. The responses received from nearly 100 multi-course management firms, along with smaller investors who possess a regional or local focus, were uniformly interesting, but taken together, some points really jumped out.

Approximately 60 percent of respondents indicated a preference for private facilities as opposed to daily-fee. This confirms a trend—the shifting preference from daily-fee to private facilities—we've noticed and have been tracking for more than two years. It is obvious now that many investors feel that some daily-fee markets are saturated, especially the upscale daily-fee market, and that private projects are more attractive in comparison.

While most responding firms indicated a national market-area interest, there is now a more equal focus on both the Southwestern and Southeastern sunbelt regions, in addition to the Midwest and Northeast (last year more than 65 percent indicated a preference for the two sunbelt regions).

This year's responding firms expressed their desire to "cluster" courses in particular areas depending on their size. Clustering and population centers appear to be more important than regional focus. For instance, one firm we regularly do business with has a guideline of working within a 200-mile, plus-1-mile-for-every-course radius of their headquarters. That's a tongue twister, but it means a firm with 26 courses will typically consider acquisitions within a



Larry Hirsh

226-mile radius from their headquarters.

Responses on desired beginning cap rates again confirmed what we've been seeing: cap rates have risen dramatically in recent years, to between 11 and 16 percent (cash flow multiples of 6.5 to 9).

With many sellers seeking multiples of 10 (cap rates of 10 percent) for their courses, this gap resulted in few transactions taking place in 2001 and early 2002. There is a definite "wait and see" feeling in the market, as investors stay on the sidelines until they are confident prices are at their lowest and sellers become more motivated to act.

Desired internal rates of return (IRR)

also rose dramatically, according to our survey, as many investors are seeking rates in the 18-percent-and-up range. Traditionally, other forms of real estate have commanded IRRs in the low- to mid-20s, and while golf's "sex appeal" and ability to attract investors at lower rates still exists, investors are inching closer to the rates required by investors in other types of real estate.

This means the weather-sensitive, management-intensive qualities of golf are making investors more cautious, even without considering oversupply in some markets.

As was the case last year, approximately 90 percent of respondents perceived values of golf properties as declining. This means there are more sellers than buyers—and those buyers should be in an advantageous negotiating position.

Continued on next page

Port Orange hires KemperSports

PORT ORANGE, Fla. — The City of Port Orange, Fla., has signed an agreement for Northbrook, Ill.-based KemperSports to manage the golf course and facility operations at the city's The Golf Club at Cypress Head. Designed by Arthur Hills and Mike Dasher, the 6,832-yard course opened in 1992.

Ken Parker, city manager of Port Orange, said the city chose KemperSports because of the contenders, Kemper's philosophies were most in line with the city's.

The course features a lighted driv-

ing range and a 6,000-square-foot clubhouse with a pro shop, dining and banquet facilities. The property also boasts preserved wetlands.

Steve Skinner, president of KemperGolf, a division of KemperSports, said Cypress Head is a good example of the type of facility that often needs a management company.

"Like many municipal facilities, Cypress Head is a wonderful golf course in need of professional management," he said. Skinner added that KemperSports would look to improve every aspect of the golf experience at the club.

NGF, NGCOA release rounds results

Weather cited for both increases and decreases in 2001 numbers

By DEREK RICE

CHARLESTON, S.C. — According to results of a joint survey by the National Golf Course Owners Association (NGCOA) and the National Golf Foundation (NGF) 518 million rounds of golf were played in the United States in 2001.

The results of this survey come from polling of all 15,720 regulation facilities in the country. Data was received from 2,426 of those facilities, which amounts to a 15 percent response rate. Previous rounds numbers have been consumer-based and have indicated that 580 million rounds were played in 2001.

The consumer based model has been criticized recently, most notably by James Koppenhaver of Pellucid Corp., who has estimated that those numbers are 15 percent to 20 percent too high (GCN June 2002). Pellucid had estimated the actual number of rounds played in 2001 to be around 508 million.

According to NGF/NGCOA survey, rounds played were down slightly in 2001

compared to 2000 (518.1 million vs. 518.4 million). Six of the 11 regions experienced an upturn, with five seeing a decrease.

The regions were created based on temperature and precipitation, proximity and length of the golf season.

Among the facilities reporting an increase in 2001, 42 percent cited improved weather as the main reason. Weather was also the most-cited reason for decreases, with 52 percent of facilities that experienced a decline citing it as the main cause.

Other reasons for increases included renovations, changes to the membership, course conditions or advertising and promotion. The economy and Sept. 11 also had an impact on those facilities that experienced a decrease in the number of rounds played, as 27 percent cited either as a reason.

Going forward, the NGCOA and NGF will continue to track the volume of rounds played in the United States and will report results through Golf 20/20 on a quarterly basis, beginning in 2003.

Moving up...
Biggest 2001 increases
 Mountain: 7.2%
 Mid-Atlantic: 3.7%
 Central/South Florida: 2.9%
 Northeast: 2.4%
 Southeast: 1.5%
 South Central: 0.9%
... and going down
Biggest 2001 decreases
 Upper Midwest: -5.7%
 Northwest: -3.9%
 Lower Midwest: -1.9%
 Gulf Coast: -0.8%
 Southwest: -0.8%

I.R.I. acquires Intrawest club

By DEREK RICE

RANCHO SANTA FE, Calif. — I.R.I. Golf Group LLC has acquired The Raven Golf Club at Sabino Springs from Scottsdale, Ariz.-based Intrawest Golf. I.R.I. has named the Tucson, Ariz., club Arizona National Country Club at Sabino Springs. Terms of the deal were not disclosed.

The Raven at Sabino Springs was one of two Raven facilities (the other being Phoenix's Raven at South Mountain) built in the 1990s and later acquired by Intrawest. Intrawest said it will continue to expand the Raven brand, which includes four courses, with a fifth scheduled to open later this year.

So why would a company with so much invested in a recognized brand like Raven sell off one of the properties? Jeff Stipek, senior vice president of Intrawest, said the move was purely a business play.

"Southern Arizona is not a growth market for us," Stipek said. "When I.R.I. approached our team about purchasing the Sabino Springs property, we evaluated the opportunity closely and then decided to move forward."

Larry Benson, chief operating officer for I.R.I., said the location of the club will play a major role in its marketing.

"Because of its strategic location within the Tucson area, Arizona National affords us some great cross-marketing opportunities with the golfing public," Benson said.

Smith to acquire Treetops Resort

GAYLORD, Mich. — Treetops Resort golf professional Rick Smith has agreed to purchase the four-season resort from Melling Corp., which has owned the property since 1983.

The resort features four golf courses, a par-3 course, an array of winter sports activities and 4,000 acres of terrain Smith said

he plans to develop.

Smith joined the resort as director of golf in 1987. In 1992, Treetops owner and developer Harry Melling gave him the opportunity to design the par-3 course called Threetops. Melling then allowed Smith to design the resort's Signature course in 1993 and the Tradition course in 1997.

Management cos. hanging on

Continued from page 1

on its credit line since earlier this year, primarily because AGC has not made lease payments.

Meanwhile, GTA is liquidating its assets. Its creditor, Bank of America, extended GTA's repayment date of the company's \$84 million loan, which had been June 30, to Dec. 31, 2002. Since January

2001, the company has sold 28 courses for \$215.5 million. The company plans to pay shareholders between \$6.01 and \$9.43 a share when it has completed liquidation of its remaining courses.

NGP representatives have said they see no reason the company's planned merger would not go through, despite formidable share-

holder opposition, most notably from Farallon Cap Investments and Cliffwood Partners. Both say the merger benefits only David Price, who founded both NGP and AGC. NGP has also continued to downplay bankruptcy talk.

If the merger goes through, NGP would be reorganized as a public company and would no longer be required to pay most of its earnings as dividends. ■

Survey results

Continued from previous page

While most investors sought properties in larger markets (population of 250,000 or more), many were willing to consider smaller markets, especially if they were geographically accessible to their other facilities. Generally the larger markets were still popular, with an average desired market size of 750,000.

With respect to golf property financing, the responses were about equally split between commercial banks and golf finance companies, with many projects using both. The typical loan size was in the \$3 million to \$5 million range with an overwhelming percentage (90-plus) of the respondents reporting loan-to-value ratios between 60 and 75 percent. Interest rates for loans were predominantly less than 10 percent, and as low as 7 percent with loan amortization terms typically 15 to 25 years.

Comments indicated that while money was cheaper than last year, it was harder to find and the requirements for approval were stiffer than before. Operating experience is now critical to most lenders; property history is equally important. Bottom line: Few loans are available for new construction or properties with limited operating history.

About half the respondents listed leasing as an option, with percent of gross or net income the typical criteria for establishing a lease price (few other definitive parameters were mentioned). Management companies have renewed their rush for contracts—these are the same firms that, as recently as two years ago, would not consider taking management contracts.

While it's hard to tell for sure, the renewed interest in management and acquisition could mean the market is at or near bottom. Only time will tell.

Despite lower interest rates, a supply/demand imbalance in several markets, and the still-to-be-determined long-term effects of 9/11, many buyers continue to sit on the sidelines and seek the bottom of the market. As more courses become available, and the expectations of buyers and sellers grow closer, sales activity should pick up during the next 12 months after an extraordinarily slow 2001 and first half of 2002. ■

GOLF COURSE NEWS

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Prelude III

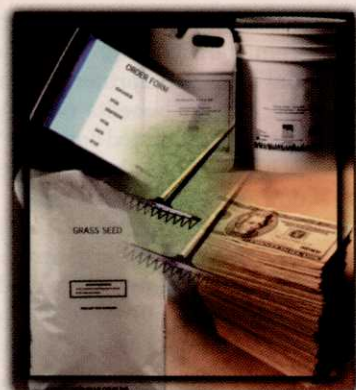


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BRIEFS

BRIDGES JOINS NU-GRO TECHNOLOGIES

GRAND RAPIDS, Mich. — Jason Bridges has joined Nu-Gro Technologies Inc. as a sales representative covering key accounts in states east of the Mississippi River. Bridges previously worked as an assistant golf course superintendent at Tanglewood Park Golf Club in Clemmons, N.C.



Jason Bridges

GOLF VENTURES ADDS FORD

LAKELAND, Fla. — Golf Ventures has added Scott Ford to its staff as territory manager for the Southwest Florida region. In his position, Scott joins current Golf Ventures territory manager, Jason Gray, to provide sales and technical support and knowledge in Charlotte, Glades, Lee, Hendry and Collier counties. Scott has been in the turf and ornamental business for 17 years and most recently was a regional manager for Southern States.

BECKER UNDERWOOD NAMES BUCKALLEW

AMES, Iowa — Becker Underwood, Inc. has named Brian Buckallew product manager for its distribution sales business unit. In his new position, Buckallew is responsible for the development, marketing and sales of the company's bioagronomic, pest management and specialty products in the turf, ornamental, horticulture, aquatic and forestry markets. Before joining Becker Underwood, Buckallew held numerous positions within Pioneer Hi-Bred, Intl.



Brian Buckallew

KEIZER LEAVES GCSAA

LAWRENCE, Kan. — Clair Keizer, director of corporate marketing and sales for the Golf Course Superintendents Association of America, has left the organization to pursue other marketing and advertising interests. Keizer joined the GCSAA in December 2000 and was responsible for its corporate marketing and sales initiatives, including advertising, sponsorships and the trade show portion of the International Golf Course Conference and Show.

GCSAA, industry working to keep show vibrant

By A. OVERBECK

LAWRENCE, Kan. — As tough economic times continue to impact the golf industry, it is no surprise that many companies are re-evaluating the investment they make on the annual GCSAA Conference and Show. Recognizing that it depends on industry suppliers to support its programs, the GCSAA and the Industrial Advisory Council (IAC) are working to maintain the show's value proposition.

"The show is still number one in the industry, but we don't want to rest on our laurels," said GCSAA CFO Julian Arredondo. "Because some of our partners are hurting right now, they are challenging their marketing dollars. We are trying to be as responsive as we can be because we rely on the industry dollars to support programs that otherwise don't pay for themselves."



Julian Arredondo

According to trade show consultant Steve Miller, the trade show business on the whole has been in decline since 2001 and the trend has spilled into 2002. First-quarter trade show attendance was down 8.1 percent and exhibitor participation fell by 2.4 percent.

While these trends have not been directly evident at the GCSAA Show (*Trade Show Week* magazine placed the show in its top 100), the GCSAA has changed the role of the IAC to allow exhibitors more input in shaping future shows.

"In the past the IAC has been more trade show policy-oriented," Arredondo said. "The shift has been a strategic one. We are examining how the industry can help the GCSAA create an even stronger, must-attend event."

While there are no firm directives to date, the IAC is

Continued on page 18

Jacklin to release new bentgrass, bluegrass

By ANDREW OVERBECK

POST FALLS, Idaho — As the seed industry continues to work through tough times, Jacklin Seed has kept pouring money into research and development — and has new bluegrass and bentgrass varieties to show for it.

"Have we slowed production? Absolutely. Have we slowed research and development? Absolutely not," said Bill Whitacre, president of J.R. Simplot's agribusiness group.

During its 2002 distributor meeting and field day



A test plot of Jacklin's new T-2 bentgrass

in June, Jacklin's research director Doug Brede showcased the company's newest releases and latest successes.

Dubbing Jacklin Seed the "bluegrass kings," Brede pointed out that the company's varieties recently swept the top rankings in the 2000 national Kentucky bluegrass test conducted by the National Turfgrass Evaluation Program. In the Northeast, Jacklin's Award took top honors, in the Midwest its new J-2695 finished first, Impact and Award topped the Great Plains, and Total Eclipse won out in the Mountain West.

"We still have some new experimental ones that will be coming out," said Brede. "They are being bred to grow tight to out-compete Poa annua, have good color and

Continued on next page

Yamaha Golf Car rolls out G-MAX line

Six more new vehicles to come next year

NEWNAN, Ga. — Yamaha Golf Car officially unveiled its 2003 golf car line June 8 during the opening ceremony of its new \$31 million manufacturing facility.

The G-MAX models include the gas-powered 4-stroke and the electric 48 V. In addition to the G-MAX line, vice president Bill Szarowicz said the company would be unveiling six new models in 2003. Improved utility vehicles will likely be included in the new product mix.

Major new features of the G-MAX golf cars include:

- The Tru-Trak suspension system has automobile-style struts and self-adjusting rack-and-pinion steering.
- The Ergo-Shade sun top has integrated grab handles, allowing golfers to keep their entire bodies within the

vehicle, improving safety and comfort.

• The Genius diagnostic system allows fleet service technicians and eventually golf courses to use any personal digital assistant to perform diagnostics via infrared.

The gas car also features a more powerful 11.4-hp, 357 cc engine and the 48 V electric model now has an inline battery layout to allow for more convenient battery tray removal.

— Andrew Overbeck



Yamaha's new G-MAX 4-stroke

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Concord Environmental Equipment has rolled out the Groundhog, a front-end loader attachment that mounts on all makes of ATVs. The unit is a full-functioning loader using a hydraulic pump powered by the ATV battery. Controls for the loader are positioned on the handlebars. Once mounted, the loader can be unmounted in approximately five minutes. The Groundhog has a lift capacity of 300 pounds and a lift height of 48 inches. A forklift and blade attachment are also available. For more information, contact: 800-330-8907.

Roberts Seed now Turf One

By ANDREW OVERBECK

TANGENT, Ore. — The Pickseed Companies Group has renewed its commitment to its Roberts Seed subsidiary, quelling any rumors that the 29-year-old entity would be folded into Pickseed West.

As part of the new plan, Roberts Seed will be relaunched Aug. 1 as Turf One.

"We are staffing up with some experienced people and we are going to continue to build on Roberts' existing customer base and put an added emphasis on professional turf," said new marketing director Dave Friesen, who worked for Pickseed West from 1987 to 1995.

In addition to Friesen, the company has brought in veteran seedsman Tom Burns as general manager and Mary Beth Menard

Continued on page 21

GOLF COURSE NEWS

John Deere shuts Gator plant in Virginia

MOLINE, Ill. — In a move to cut costs and improve efficiency within its Commercial & Consumer Equipment Division, Deere and Co. is closing its two-year-old Gator utility vehicle production facility in Williamsburg, Va. The company also is shutting down its leased Great Dane commercial mowing equipment factory in Jeffersonville, Ind.

While the Gator plant in

Williamsburg was virtually brand new, the decision was made to consolidate utility vehicle production at the company's Horicon, Wis., and Welland, Ontario, Canada, facilities.

"This is part of a bigger effort within the company to reduce assets," said corporate public relations manager Ken Golden. "We had never become fully operational in the [Williamsburg] facil-

ity. We are fully operational at these other locations and have a mature workforce, long supply relationships and logistics in place."

According to Golden, the decision to consolidate manufacturing has nothing to do with how well the Gator line is selling.

"The John Deere Gator continues to be a strong product and we will be bringing out dif-

ferent models," he said. "This is a function of a company that is attempting to rationalize its manufacturing locations that can handle more capacity."

"At the Horicon facility, for example, workers building riding mowers are laid off five months of the year because of the seasonality of the business," Golden continued. "We are putting Gators in there so we can utilize that workforce



all year long."

The manufacturing realignment will reduce the division's workforce by 300 employees and save \$25 million beginning next year. In the last 12 months, the business unit has eliminated more than \$400 million in inventories and wholesale receivables. The two plants are scheduled to close by Oct. 31.

— Andrew Overbeck

Novozymes buys Jeffreys

SALEM, Va. — Novozymes Biologicals has purchased biological product manufacturer George A. Jeffreys and Co.

George A. Jeffreys and Co. was founded 40 years ago and has specialized in enzymes-enhanced biological products for environmental and agricultural applications. The company also is involved in research and development in the microbial field.

"Jeffreys will accelerate our growth through new products, new customers and new manufacturing capabilities," said Ted Melnik, president of Novozymes Biologicals.

Jeffreys currently employs 17 people and has laboratories and manufacturing operations in two locations in Salem. Melnik said he does not plan to eliminate any jobs, but some positions will be transferred to Novozymes Biologicals' new \$12 million, 20,000-square-foot administration and research and development facility when it opens this fall. Former Jeffreys president Jim Toby will become a part of the Novozymes Biologicals management team.

Jacklin's latest

Continued from previous page

tolerate lower mowing heights."

Brede also unveiled Jacklin's newest creeping bentgrass series T-1 and T-2.

"We have been working on these since 1994," he said. "We have L-93, Southshore and Putter, but we wanted to develop our own to fill the void in the lack of new bentgrass varieties."

"T-2 has high Poa resistance because it out-competes it," Brede continued. "We introduced plugs of this experimental bent into plots of Poa to see how well they did. They also perform well under stress and have good disease resistance. You can really torture them."

The new bentgrass variety will be ready for the 2004 season, but Brede said there is a limited amount of T-2 that Jacklin is giving away to superintendents who would like to try it out. ■

GOLF COURSE NEWS

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Weeks reformulating Bayer ES

Continued from page 1

be allowed to license back its fipronil products (Chipco Choice, Top Choice and Fire Star) and compete alongside the purchasing company.

"The trademarks for Chipco Choice and Top Choice will remain with Bayer, and Fire Star will go to the acquiring company," said Weeks. "As Bayer

sells these products, it will be with those provisions. In all likelihood the golf business will have two suppliers of fipronil that will be sold through different brand names."

Bayer has six months to complete the divestiture of fipronil. It remains to be seen what definitive interest, if any, top industry players such as BASF, Dow

AgroSciences, or Syngenta Professional Products have in acquiring the product line.

FORMING A NEW TEAM

Weeks' other challenge is pooling the best talent from each organization. The integration process will happen in stages over the next several months and two key appointments have already been announced. Dan Carrothers, formerly the head of sales and marketing for Bayer GPC, will

head the U.S. green industry business for Bayer ES, and Nick Hamon will head development and technical services, a position he previously held at Aventis Environmental Science.

"We will continue to operate in parallel throughout the integration process, but by 2003 we will be on a combined platform operating as one company," said Weeks.

According to Weeks, the big-

gest benefit the buyout will provide to superintendents will be the ability of the combined com-

'We are all about investing, developing and delivering new tools for the golf industry'

— Josh Weeks

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3 Number of holes:

- A. 9 holes
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- C. 27 holes
- D. 36 holes
- F. More than 36 holes
- Z. Other (please specify) _____

4 Purchasing involvement: (check all that apply)

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pany to concentrate on research and development.

"We have the capability to bring new technology to the market faster," said Weeks. "The bar has been raised. New products are going to have to be more effective, less expensive and distinguish themselves from other products on the market. We are all about investing, developing and delivering new tools for the golf industry by focusing more research dollars on the task at hand." ■

GCSAA plans show changes

Continued from page 16

working to create several return on investment formulas, improve location selection and increase superintendent attendance.

"At the spring IAC meeting we decided that we should take a more hands-on approach to the show," said Mike Scaletta, advertising and promotions manager for John Deere Golf and Turf. "We need to act now to keep the show vibrant five to 10 years from now. Shows don't die overnight, they slowly erode."

With marketing dollars harder to come by, many exhibitors on the council said their booths might be scaled back next year.

"We are responsible for making sure people come to our booth, but we also have to make sure it makes financial sense," said Dave Heegard, vice president of sales and marketing for Pursell Technologies Inc. "On the other side, the GCSAA is responsible for putting together shows in venues that attract a majority of their membership."

Arredondo and his staff are now working to provide incentives for both exhibitors and members.

While he wouldn't specifically say what the GCSAA had in store, Arredondo said there are plans to co-market the show with industry partners and put more education sessions and activities directly on the show floor. Arredondo also confirmed that the GCSAA is having discussions with the National Golf Course Owners Association about the possibility of combining efforts and creating one show for superintendents and owners. ■

Quarry Hills looks to spring 2003 opening

Continued from page 1

cash. Geilich laughed off those reports. "We have never stopped work and we are proceeding along," he said. "We would prefer to have been finished already, but it didn't work out that way."

The planned 27-hole John Sanford-designed golf course has seen its share of delays in the 11 years since Geilich and his partner, developer Bill O'Connell, first proposed the idea of building a golf course, soccer and baseball fields on the

site of a former landfill. Because Quarry Hills was accepting dirt from Boston's Big Dig highway project, which itself has seen its share of delays and cost overruns, Geilich said delays were inevitable.

"It has been an extremely complex and difficult project," Geilich said. "Obviously, [construction crews] never know when they're digging just how much they're going to get or when it's going to come. So they may say they're going to send 500 trucks and they send 1,000. They just never know.

"It's been very difficult, but we're through with the worst of it and we're on the homestretch now," he added.

In all, more than 13 million tons of dirt have been brought in 900,000 truckloads to the site from the Big Dig project. At press time, nearly all of that had been placed where it was supposed to go, Geilich said.

"All the dirt is on site, and we do have nine holes finished and grassed," he said. "If all goes well, we should be able to open all 18 holes for play by the middle to late spring or early summer next year."

Geilich said the plan is for the work on

the remaining nine holes to be completed by next spring and opened by the end of next summer.

"Hopefully we'll have that done next spring," he said. "Actually, if we have a mild fall as we did last year, we may even get that done this year."

Through all the delays, Geilich said, the grounds staff at Quarry Hills, under the guidance of superintendent Gary Kessener, has done its best to avoid further delays.

"We've lucked out with a wonderful crew. They're doing a super job," he said. ■

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- 14 Ohio State University/
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Foundation Research Field Day, Zanesville, Ohio.
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- 21 71st Annual University of Rhode Island Turfgrass Field Day, Kingston, R.I.
Contact: 401-874-4540.
- 27-28 Kansas Environment: Focus on the Future, Topeka, Kan.
Contact: 785-296-6603.

SEPTEMBER

- 10 Clemson University's annual Turfgrass Field Day, Florence, S.C.
Contact: 864-656-2545.
- 21-23 2002 Club Managers Association of Southern California's 11th Annual World Conference of Assistant Managers, Marina Del Ray, Calif.
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Roberts Seed reborn as Turf One

Continued from page 16

as account sales executive.

With the team in place, Friesen said Turf One will start to upgrade its image.

"We have a lot of great varieties like Mach I ryegrass which has placed high in the recent National Turfgrass Evaluation Program tests," he said. "We felt we needed to get more aggressive in promoting ourselves as a professional turf company."

Turf One will continue to focus on cool season turfgrass and work closely with Pickseed West. The two companies have adjoining warehouse facilities.

"We will have access to Pickseed West's product development and will share on that end," Friesen said. "But we will not co-market varieties once they are commercially available. There is a demand from customers to have distinctive product lines." ■

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NATIONAL GOLF ROUNDS PLAYED*

REGION	MAY	Y.T.D.
NEW ENGLAND (ME, NH, VT, MA, RI, CT)	1.1%	3.9%
MIDDLE ATLANTIC (NY, NJ, PA)	-4.3%	2.1%
EAST NORTH CENTRAL (MI, OH, IN, IL, WI)	-15.6%	-18.1%
WEST NORTH CENTRAL (MN, IA, MO, KS, NE, SD, ND)	-8.5%	-11.3%
SOUTH ATLANTIC (DE, WV, VA, MD, NC, SC, GA, FL)	-1.6%	0.9%
EAST SOUTH CENTRAL (KY, TN, AL, MS)	-5.0%	-4.9%
WEST SOUTH CENTRAL (AR, LA, OK, TX)	-3.0%	-1.1%
MOUNTAIN (MT, ID, WY, CO, NM, AZ, UT, NV)	-0.7%	-1.1%
PACIFIC (WA, OR, CA, AK, HI)	-3.9%	0.0%

Source: Golf DataTech

* The percentages above represent the difference in number of rounds played in the month of May 2002 to the number of rounds played in May 2001.

Golf Course News Stock Report (7/5)

Company(Symbol)	Price	Change(%) 6/4/02	52-wk range
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BASF (BF)	46.13	5.1	27.15 - 46.81
Century Garden and Pet (CENT)	16.77	15.8	6.60 - 18.49
Deere & Co. (DE)	48.85	6.9	33.50 - 49.98
Dow Chemical Co. (DOW)	33.74	3.8	23.66 - 38.67
Golf Trust of America (GTA)	3.29	-5.7	2.92 - 8.80
Ingersoll-Rand (IR)	45.16	-8.1	30.40 - 54.40
Lesco Inc. (LSCO)	11.51	1.8	6.10 - 12.26
Monsanto Co. (MON)	17.69	-32.8	16.63 - 37.90
National Golf Properties (TEE)	9.10	7.1	4.30 - 27.00
Syngenta AG (SYT)	12.40	-1.0	8.50 - 13.20
Toro Co. (TTC)	55.94	0.6	39.00 - 62.75
Textron Inc. (TXT)	44.87	-3.4	31.29 - 57.24

YEAR-TO-DATE GOLF PROJECT ACTIVITY (MONTHLY CHANGE)

	NEW	ADDITIONS	TOTAL
PROPOSED	384 (+6)	67 (+2)	451 (+8)
IN PLANNING	421 (-8)	74 (-5)	495 (-13)
UNDER CONSTRUCTION	402 (+74)	182 (+153)	642 (+227)
COMPLETED	92 (+24)	55 (+9)	147 (+33)

Source: National Golf Foundation

NGF renovation numbers

The NGF's monthly Golf Project Report numbers do not include courses classified as reconstructions or renovations. This year to date, there are 42 reconstructed courses under construction and nine reconstructed courses have opened.



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Sealsle I Growers Association*	12-13	888-584-6598	706-227-7159	www.sealslel.com / gsd@negia.net
Sealsle 2000 Growers Association*	12-13	888-584-6598	706-227-7159	www.sealsle2000.com / gsd@negia.net
Tee-2-Green	24	503-651-2130	503-651-2351	tee-2-green.com
TiffEagle Growers Association*	12-13	888-584-6598	706-227-7159	www.tiffeagle.com / gsd@negia.net
TiffSport Growers Association*	12-13	888-584-6598	706-227-7159	www.tiffsport.com / gsd@negia.net

MISCELLANEOUS				
Advertiser	Page	Phone	Fax	Email/Website
Bird-X	20	312-226-2473	312-226-2480	www.bird-x.com
Chestnut Identity Apparel	20	831-336-8977	831-336-8977	—
DaimlerChrysler/Global Electric Motorcars	2	800-999-FLEET	—	www.gemcar.com or www.fleet.chrysler.com
Dodge-Regupol, Inc.	20	866-883-7780	—	www.regupol.com / sales@regupol.com
Formost Construction Co.	20	909-698-7270	909-698-6170	formost@inland.net
Hinspergers Poly Ind./Evergreen Turf Covers	21	905-272-0144	905-272-3769	www.hinspergers.com
John Wiley & Sons	8	212-481-3200	212-689-9749	—
Mark Eliot Design	20	203-972-9131	203-972-9132	—
Sandtrapper by IVI-GOLF*	12-13	888-970-5111	607-729-5158	www.sandtrapper.com / info@sandtrapper.com
Spectrum Technologies, Inc.	21	800-436-4440	815-436-4460	www.specmeters.com

* Appears in regional editions.

When requesting information, please mention Golf Course News 8/02.

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Drive[®] 75 DF herbicide effectively raises the bar for postemergent weed control. A single, convenient application of **Drive** quickly eliminates a broad spectrum of both broadleaf and grassy weeds—from crabgrass and foxtail to clover and dandelion—in a wide variety of turf species. Then **Drive** keeps weeds under control for 30 to 45 days—in some cases for more than 3 months. **Drive** also offers exceptional seeding and overseeding flexibility—allowing you to seed many varieties of turf immediately before or after application. To learn more about how **Drive**[®] 75 DF can help you in your drive for turf perfection, call 1-800-545-9525 or visit www.turffacts.com. Always read and follow label directions.

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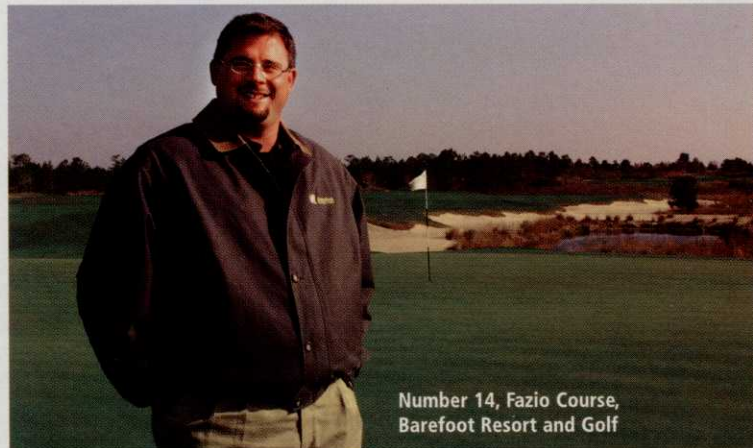
"Playing Barefoot's More Fun Because Of Penn A-1"

"The thinking behind our three great resort courses, each with its distinguished designer and unique features, is to have them putt equally for our 30,000 to 40,000 rounds per year per course. True and consistent Penn A-1 has done this beautifully through heat and wear stresses, and it's no more trouble to maintain than other creeping bentgrasses I've managed. I wouldn't hesitate to use Penn A-1 again."

"Nothing's better than this."

Jeffrey Brown
Asst. Superintendent
Tom Fazio Course
Barefoot Resort and Golf
North Myrtle Beach, SC

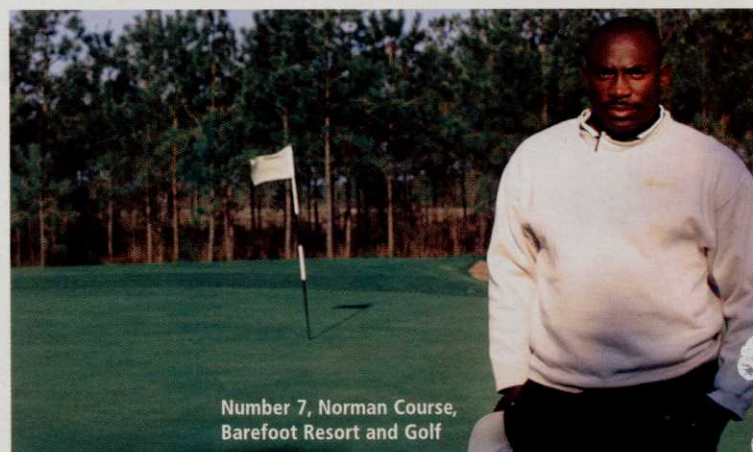
"Penn A-1 creeping bentgrass was selected for all three of our resort courses. Guests are pleased with the consistent putting from course-to-course, and often tell us they're the best greens they've ever played on."



Number 14, Fazio Course, Barefoot Resort and Golf

Matthew Huggins
Asst. Superintendent
Greg Norman Course
Barefoot Resort and Golf
North Myrtle Beach, SC

"We love Penn A-1 here because it is heat tolerant and holds up well to traffic with no extra maintenance. Resort people love Penn A-1 because of its fair and true playing surface."

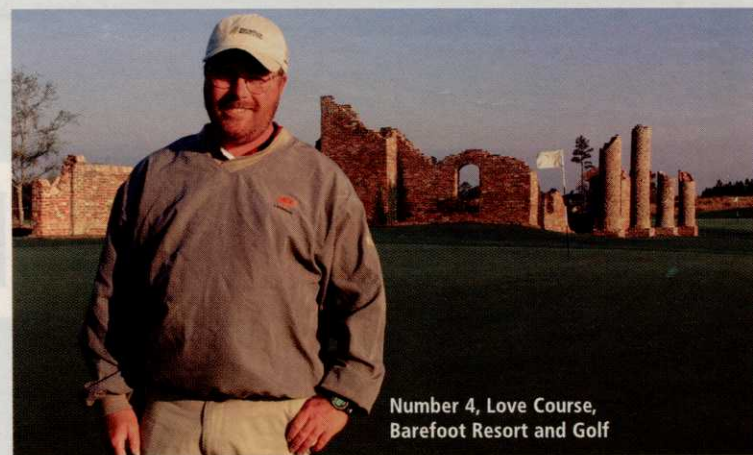


Number 7, Norman Course, Barefoot Resort and Golf

Chris Varrell
Asst. Superintendent
Davis Love III Course
Barefoot Resort and Golf
North Myrtle Beach, SC

"Some of the best attributes of Penn A-1 here in the southern regions of the transition belt are its heat tolerance and recovery from any heat stresses it may suffer.

Resort guests comment on A-1's upright growth and true putting."



Number 4, Love Course, Barefoot Resort and Golf

W. Patrick Donelan
Golf Course Superintendent
Love and Norman Courses
Barefoot Resort and Golf

David E. (D.Z.) Zeidler
Golf Course Superintendent
Fazio and Dye Courses
Barefoot Resort and Golf



Penn A-1 is a top performer in the USGA/GCSAA/NTEP 1997 On-Site Bentgrass Trials!

Mean Turfgrass Quality Ratings of Bentgrass Cultivars in the 1997 USGA/GCSAA/NTEP On-site Bentgrass Test at 13 Locations in the U.S. 2000 Data. Turfgrass Quality Ratings 1-9; 9=Ideal Turf.

Variety Name	AL3	AZZ	CA4	CA5	CO2	IL3	IN1	KY2	MO4	NY2	TX1	VA7	WA5	MEAN
PENN A-4	.73	.73	.79	.74	.81	.70	.72	.81	.74	.87	.69	.69	.68	.75
PENN A-1	.73	.63	.76	.72	.83	.78	.70	.73	.74	.80	.68	.68	.65	.73
PENN G-1	.69	.60	.76	.71	.76	.72	.73	.77	.75	.84	.67	.64	.66	.71
PENN G-6	.66	.57	.73	.74	.77	.76	.68	.74	.71	.79	.66	.67	.66	.70
Century	.69	.62	.74	.71	.81	.60	.67	.72	.73	.80	.64	.66	.67	.70
L-93	.64	.62	.72	.76	.80	.70	.67	.67	.69	.71	.67	.66	.66	.69
Grand Prix (LCB-103)	.68	.62	.73	.70	.73	.66	.67	.68	.70	.80	.65	.66	.65	.69
Imperial	.67	.59	.71	.72	.78	.64	.69	.70	.73	.70	.68	.63	.63	.68
Backspin	.68	.66	.73	.71	.74	.67	.63	.68	.72	.71	.64	.63	.62	.68
SR 1119	.65	.63	.70	.72	.74	.66	.65	.73	.67	.72	.67	.62	.61	.67
SR 1020	.67	.62	.70	.68	.70	.64	.65	.66	.67	.66	.65	.64	.62	.66
Crenshaw	.66	.58	.72	.74	.74	.60	.62	.72	.66	.64	.62	.65	.55	.65
Providence	.65	.61	.71	.70	.73	.67	.64	.66	.66	.60	.59	.63	.60	.65
Cato	.61	.56	.71	.64	.74	.61	.65	.70	.66	.58	.62	.65	.58	.64
Viper	.61	.58	.70	.67	.71	.63	.61	.61	.64	.46	.59	.60	.58	.62
Trueline	.62	.59	.71	.64	.66	.67	.58	.62	.63	.47	.61	.58	.58	.61
Putter	.62	.56	.71	.64	.51	.65	.56	.63	.64	.37	.62	.60	.53	.59
Penncross	.53	.53	.65	.58	.49	.58	.53	.54	.55	.33	.57	.51	.48	.53
LSD Value	.04	.12	.02	.08	.03	.06	.06	.06	.03	.05	.06	.05	.03	.02
C.V. (%)	3.6	12.0	1.8	7.0	2.3	5.4	5.6	5.2	3.1	4.8	5.8	4.5	3.4	5.4

1/ To determine statistical differences among entries, subtract one entry's mean from another entry's mean. Statistical differences occur when this value is larger than the corresponding LSD value (LSD 0.05).

2/ C.V. (Coefficient of Variation) indicates the percent variation of the mean in each column.

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