Yamaha Golf Car to unveil $31 million factory, ’03 model

By A. OVERBECK

NEWNAN, Ga. — In a strong statement of its commitment to the golf market, Yamaha Golf Car (YGC) is set to open a brand new $31 million manufacturing facility dedicated solely to golf cars, utility vehicles and off-fairway vehicles June 8. At the grand opening the company will also unveil its 2003 golf car model — reportedly the first of several new products slated to roll off the production line at the state-of-the-art, 220,000-square-foot factory.

“The first car to come down the line will be the ’03 model,” said Jon Bammann, division manager of new business development and off-fairway vehicles. “We will also be expanding our utility vehicle line. We feel we have a good medium-duty utility vehicle in the G21, but there is a spot in our lineup where we could have a heavy-duty and lighter-duty vehicle.”

Yamaha officials also hinted at future products that will push golf’s staid image.

“We have some fun stuff that we are going to leverage,” said Stu Horlak, general manager for Yamaha Motor Co. “We have the advantage of bigger markets and more diverse product lines [ATVs, motorcycles, watercraft]. The guys at YGC don’t stop thinking with the traditional golf car, [superintendents] have needs from turf care to off-fairway vehicles.”

HIGH-TECH FACTORY

To be certain, YGC’s significant investment in a

PGA Village foes face referendum deadline

By DEREK RICE

SAN ANTONIO, Texas — Opponents of the proposed PGA Village here were disappointed by the City Council’s 9-2 decision to approve a deal with Austin-based Lumbermen’s Investment Corp. to build the resort on land that drains into the Edwards Aquifer, the city’s sole source of water.

Hours after the April 5 decision, a coalition of groups that oppose the plan began scrambling to obtain the 68,023 signatures that would be necessary to put the issue to citywide referendum. Under the city’s charter, the groups had 40 days, or until May 13 to obtain those signatures, although the interpretation of the charter is open to debate.

“There are a number of different interpretations about what that date

Easement could spell large tax savings

By DEREK RICE

BRADENTON, Fla. — Despite the human nature to shy away from anything involving property tax valuations and the Internal Revenue Service, golf course management consultant Michael Kahn of Golfmak Inc. believes the financial benefit of conservation easements is too good to pass up for golf course owners, operators and managers.

Under the program, if a golf course is situated on land that will be dedicated to the golf course forever and will never be subdivided or built on, an owner can go to a recognized conservation easement holder and get a tax deduction for the open space as if the property is a park. In effect, the value of the property is reduced because the easement holder has the legal right to use the property as open space forever.

“Without a doubt, there is a benefit there,” Kahn said. “The issue is whether or not it is a reasonable benefit. It depends on the case. It’s a very case-by-case thing.”

Continued on page 27
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.
Pursell Technologies’ FarmLinks taking shape

By ANDREW OVERBECK

FAYETTEVILLE, Ala. — FarmLinks, a groundbreaking golf course project, is taking shape here on the sprawling farmland surrounding Pursell Technologies Inc.’s (PTI) corporate campus.

The 18-hole, Hurdan/Fry designed FarmLinks, the central focus of Pursell Farms, is two-thirds of the way complete and seeding at the course began in April. President and CEO David Pursell is pressing superintendent Tim Lacy and builder Landscapes United to speed up the rolling parkland layout ready for unofficial play in October in time for the bi-annual Pursell Cup charity golf tournament.

Pursell Farms, however, is much more than a golf course. The company built the facility as a testing site for its own controlled-release Polyon fertilizer and other insecticides utilizing its Precise technology. Pursell said there will be numerous environmental test sites on the property in addition to areas such as the putting green that will be constructed in thirds using three different construction methods.

“One third of the green will be the standard USGA green, one third will be a California green, and the other third will have a sand/Profile soil amendment mix,” said Pursell. “The green will also feature 12 different types of bentgrass.”

While construction is ongoing, PTI has been bringing in superintendents from across the country to receive product training and indulge in Southern hospitality. Guests now stay in a well-appointed guest lodge that overlooks FarmLinks’ 17th green.

The company, along with its formulators and distributors Simplot Partners and Harrell’s, is on track to bring 850 end users to the facility this year. Last year it brought in approximately 700 end users. Superintendents currently receive .45 continuing education units from the Golf Course Superintendents Association of America for participating in the training session and Pursell hopes to up the credits once FarmLinks opens.

In addition to the education and marketing programs, PTI has aligned itself with several top golf suppliers and in the process defrayed the total construction and operating cost of the facility. In return, key sponsors such as the Toro Co., Club Car and Flowtronex will have the ability to bring down end users and use the facility to test new products.

So far Toro has been helping with the irrigation installation, Flowtronex has provided the pump station and Club Car has provided equipment,” said Pursell. “It has been a great collaborative effort so far.”

continued on next page

Harding Park renovation on track

By DOUG SAUNDERS

SAN FRANCISCO — After four years of debates, proposals, and false starts, the City of San Francisco has finally developed a plan to take on the renovation of city-owned Harding Park Golf Course located on the shore of Lake Merced, just across from the renowned Olympic Club.

In April the San Francisco Board of Supervisors approved a $15 million renovation plan that will transform the 80-year-old course into a championship-quality venue that will host the 2006 PGA Tour Championship. The approval of city and state funds to finance the much-needed upgrade will allow work to begin in June on an optimistic plan that was first proposed by San Francisco resident and former United States Golf Association president Sandy Tatum in 1998.

The plan to rebuild the neglected course has been a labor of love for Tatum. His first concept was to find a way to make the project economically feasible by securing the presence of the PGA Tour to use the course. The city signed a 35-year lease of the course with Arnold Palmer Golf Management in January 2000 with the intent to let Palmer Golf Management take over the renovation work and allow them to recoup expenditures through a sliding greens fee schedule over the period of the lease.

MANAGEMENT COMPANIES RETREAT

Palmer Management backed out of the agreement in January 2001 when continuous wrangling with city officials, concerned golf groups and environmental activists caused project delays making it economically unfeasible. City officials attempted to attract other management companies, including KemperSports Management of Chicago, to step into the deal but had no success.

In the past year, new members of the board of supervisors looked more favorably on funding the renovation. As a result, the project will be paid for with a combination of $2 million of city funds and a $18 million grant from California State Parks bond fund that will be paid back over time through greens fees. The Harding Park complex includes the 18-hole layout, the Fleming Nine executive course, and a driving range and generates close to 160,000 rounds annually.

Board member Tony Hall created the Golf Fund to finance the project and has made it clear that all revenues from greens fees will go back into Harding Park and toward the operations of the other city-owned courses.

A CITIZENS ADVISORY COMMITTEE

Residents are getting to turn Harding Park into a world-class venue that will bring all of the residents of San Francisco can be proud of and we will maintain municipal control over the golf courses,” Hall said.

Southeast Partners rolls out low-cost distribution model

By ANDREW OVERBECK

LAGRANGE, Ga. — In a move to improve distribution efficiency and service to golf courses in the Southeast, Butch Gill has teamed up with other industry professionals and suppliers to form Southeast Partners.

In Florida, where the company is established, the alliance brings together suppliers Simplex Partners and Turf Merchants and distributors Suniland Fertilizers and Vopak. Gill has taken those core competencies and paired them with quality sales representatives and industry notables such as Billy Griffith and David Barnes.

The business arrangement allows for high quality products, represented by knowledgeable salespeople, to be delivered to superintendents quickly and efficiently. Southeast Partners has been able to jump right into the business cheaply because its model does not require it to purchase any distribution facilities or trucks.

Gill has worked in the seed business for the last 25 years, most recently as a representative for Turf Merchants. He and Turf Merchants president Steve Tabbs came up with the idea for Southeast Partners as an alternative distribution and sales model.

“When AgriBioTech went bankrupt and our largest distributor Terra was bought by Land O’Lakes, we had to find another way...
Audubon International releases environmental stewardship guide

SELKIRK, N.Y. — Audubon International has released its 2002 edition of A Guide to Environmental Stewardship on the Golf Course. The guidebook is designed to help superintendents and others interested in environmental management to blend environmentally responsible practices into the day-to-day operations of golf course management.

The book incorporates knowledge gained through Audubon International’s 10 years of work to help golf courses serve as ecologically valuable green spaces throughout North America, while reducing potential environmental impacts associated with golf course operations. The 128-page guide covers a variety of topics, including environmental planning, wildlife and habitat management, chemical use reduction and safety, water conservation and water quality management, and how to build support through outreach and education activities. Project plans, case examples, and reference materials are included to help golf courses achieve their environmental goals.

“The guide was written to serve as a resource for turf professionals, students, and golf course members of the Audubon Cooperative Sanctuary Program,” explained Jean Mackay, Audubon International’s director of educational services and principal author and editor of the guide. “We hope it helps people take action to ensure that more and more golf courses are managed with sensitivity to the environment.”

Distribution

Continued from previous page

to do it,” said Gill. “In 2000 I broke away and we set up independent agents like Billy Griffith, and teamed with Nick Spardy with Simplot Partners which was looking to come into the Southeast. A lot of companies had products they wanted in the market, but didn’t have ability to put salespeople in the market.

“We realized that if we knew who the customer was and we had good representation to that customer, then we could outsource his supplies through the best vendors,” he continued.

The key to the deal was hooking up with Sunniland, which delivers large bulk items such as seed, fertilizer and soil amendments to Lowe’s and Home Depot, and Vopak, which delivers smaller items to the pest control industry and Ace Hardware stores.

“These companies already have trucks running and they drive past golf courses every day,” said Gill. “They were looking to add more freight to make their delivery systems more economical. With these partners on board we can get products to golf courses at the right time and still be cost effective.”

With Florida set up, Gill is now focusing on finding partners in other parts of the Southeast.

“If we can get this model up we will expand to Georgia, South Carolina and Alabama and the rest of the Southeast in the next 18 months to two years,” he said. “We are already looking for partners in each area that will work with us.”

PTI FarmLinks

Continued from previous page

Pursell said the marketing strategy of bringing superintendents and other end users to the facility for training has been worthwhile.

“The positive reaction presses us on to continue what we are doing,” he said. “It is fun to be able to do something different. When we can do this we are not competing on the same page as a Lesco or some of the other larger companies.”

FarmLinks, which will play from 7,544 yards, is scheduled to open in mid-April 2003.
Joe Jemsek, Chicago’s Mr. Golf, dies at 89

CHICAGO, Ill. — Joe Jemsek, Chicago’s Mr. Golf and public golf pioneer, died April 2 after a long battle with cancer. He was 89.

Jemsek got into the golf ownership business in the 1950s with the goal of making a private country club experience available to a public golf audience. His company, Jemsek Golf, owns and operates eight public golf courses in Chicago, including Cog Hill Country Club and St. Andrews Country Club. He bought Cog Hill in 1951, and brought the Western Open to Cog Hill’s Dubsdread No. 4 Course in 1990.

Jemsek began his career in golf at age six as a caddie in the Chicago suburbs, and worked his way up to golf pro and eventually golf course owner. Jemsek won numerous accolades over the years including the William D. Richardson Award from the Golf Writers Association of America and the National Golf Foundation’s Herb Graffis Award. He was also chosen as the Professional Golfer of the Year by the PGA of America and was inducted into the Chicago Sports Hall of Fame.

— Staff report

Harding Park renovation
Continued from page 3

Joseph Jemsek, Harding Park renovation

The year-long project will implement a redesign that was drawn up by the Palmer group with input from Tatum and PGA Tour course consultant Chris Gray. After eliminating the current turf stands of broadleaf weeds, the layout will receive a new irrigation and drainage system, soil improvements, greens rebuilt to USGA specs, and new bunkers and tees. Some holes will be lengthened to accommodate the Tour Championship. In addition, the Fleming Nine will be completely rebuilt, a new driving range will be located near the new clubhouse, and a First Tee Program sponsored by the PGA of America will be added to the complex.

Shawn Sweeney, an area supervisor for the department of parks and recreation, will oversee the renovation project. "We have several firms bidding on the renovation work at this time. Our city workers will be sent to other projects while the major construction work is done. Once we start planting the new courses, we will increase our staff at Harding from 12 to 17 workers. It is important the city finally took control of this much-needed project," Sweeney said.

PGA Tour officials have agreed to bring the Tour Championship to the new Harding Park every third year starting in 2006. Earlier plans called for the Tour to pay $500,000 in fees for each visit, which will help to pay off the bond loans. It is estimated that each visit by the Tour will generate over $20 million to the local economy.

No one will be happier when work begins than Tatum, whose vision has remained true to save a great public course for his hometown. "I understand how much it matters to play a really great golf course in wonderful condition, what it does to the entire experience," Tatum said. "I also understand there’s a concept about municipal golf that it’s okay for municipal golfers to be given a third-rate experience. One of the things this project can do is demonstrate just how dead wrong that is."

ALWAYS COMES THROUGH: ALL SEASON LONG. MACH 2* Specialty Insecticide

Want season-long control of disgusting, turf-damaging grubs? The proven performance of MACH 2* specialty insecticide provides superior, broad-spectrum control. Its wide window of application allows you to treat grubs through the second instar — and there’s no need for immediate irrigation. Unbeatable control. Gorgeous turf. Things are looking better all the time.

Dow AgroSciences

A s I was walking up to the 15th tee at Augusta National during the practice rounds at the Masters, I stumbled upon Tom Fazio explaining the changes he made to the hole to CBS announcers Jim Nantz and Ken Venturi. That's when it struck me: how many armchair greens committee architects watching this year's telecast would be left with the impression that they, too, needed to lengthen their course?

With increasing golf ball and club technology, many courses are already adding length and new courses are getting longer and longer. While the effects of the 285 yards that were added to Augusta National were impossible to gauge due to wet conditions, the changes made to golf's Mecca famously changed the flames of the technology vs. tradition debate.

Not only did Augusta National add length, using land from adjacent Augusta Country Club in the process, but Masters chairman Hootie Johnson also stopped just short of endorsing making all of these new high-tech clubs and balls!

While many in the golf industry are tiring of this ongoing argument, the fact remains that increasing technology and other factors are altering the game to some degree. However, as this month's Point/Counterpoint feature and News Poll illustrate (see below and page 7), the industry is still firmly divided over what, if anything, should be done about the problem.

There is no doubt that professional golfers are hitting the ball longer, but tweaking layouts for professional events has been going on for years. The big question is how technology will impact the average golfer and the 15,000 plus average golf courses in the country. Unfortunately, there isn't much hard data on this. Most of the "evidence" that technology is purely anecdotal or based on unverified assumptions or estimates.

Are a majority of high-handicappers also hitting the ball 50 yards farther right and endangering homeowners relaxing on their porches? Or is the high-handicapper playing more golf because he can drive the ball 50 yards farther right down the middle? The last thing the industry needs is another survey, but quantifying the problem would be better than making unnecessary changes (to both golf courses and equipment) to solve what could just be a misconception or misperception.

Speaking of using hard data to assess the severity of a problem, check out John Straw's review of Bjorn Lomborg's "The Skeptical Environmentalist: Measuring the Real State of the World" (see page 18). According to Lomborg's assessment of the data on environmental problems, it turns out that the environment on the whole is actually getting better, not worse. The golf industry has known this for some time, but finally there is a body of data that provides an alternative perspective to the usual gloomy environmental scenario.

Here at Golf Course News, we never stop counting. Turn back to page 28 for a listing of the 40 industry professionals quoted in this issue.

**POINT**

**COUNTERPOINT**

**Drawing a line in the sand**

By DAMIAN PASCUZZO

As golf course architects we are trained to be problem solvers. Given a piece of land, along with a list of development constraints and the client's goals and budget, we set out to design the best course possible. That's our job and we'll continue to do it the best we can. But how about a little help from our friends making all of these new high-tech clubs and balls?

Has anyone seen how far people are hitting it today? No, I'm not talking about the tour pros. We all know how they pulverize the ball. I'm referring to the high school kids, the 20-somethings, and all those other flat-bellied golfers to whom a 280-yard drive is no problem at all. The cause is a combination of stronger competitors and better equipment.

Over the last 50 years, designers have gradually increased the length of golf courses. In the 1960s, the average height and weight of the 125 exempt players on the U.S. PGA Tour was six feet and 180 pounds. Today, the average height and weight of the 125 exempt players on the U.S. PGA Tour is six feet two inches and 195 pounds.

At the same time, club technology has improved. In 1992, the average size driver clubhead and driver length on the PGA Tour in 1992 was 180 cc and 44 inches. The average size driver clubhead and driver length in 2002 is 325cc and 45.25 inches. In 1992 average clubhead speed on the U.S. PGA Tour was 106 mph. Average clubhead speed today is 112 mph. This increase in clubhead speed (and the ability to generate distance) involves the player and the club. The golf ball has not been hit yet.

The 1992 Masters Champion was Fred Couples, who stood 5 feet 11 inches tall, weighed 180 pounds and could barely bench press 155 pounds. The 2002 Masters Champion Tiger Woods stands 6 feet 1 inch tall, weighs 185 pounds and could bench press 410 pounds.

We're no longer concerned only about the houses that border the fairway. The last thing the industry needs is another survey, but quantifying the problem would be better than making unnecessary changes (to both golf courses and equipment) to solve what could just be a misconception or misperception.

Point/Counterpoint

By WALTER UHLEIN

For the past 70 years the United States Golf Association and the Royal & Ancient have had performance controls in place concerning the golf ball. These performance controls have included limitations on size and weight (adopted 1955), velocity (adopted 1942) and overall distance (adopted 1976). At the same time the performance controls on golf clubs did not occur until 1998.

To discuss and debate a "limited flight ball" is to conclude that the golf ball is the cause of some current problem. If there is a problem, the golf ball is not the cause.

PLAYERS ARE BIGGER, STRONGER AND LONGER

The cause is a combination of stronger competitors and better equipment. In 1992, the average height and weight of the 125 exempt players on the U.S. PGA Tour was six feet and 180 pounds. Today, the average height and weight of 125 exempt players on the U.S. PGA Tour is six feet two inches and 195 pounds.

At the same time, club technology has improved. In 1992, the average size driver clubhead and driver length on the PGA Tour in 1992 was 180 cc and 44 inches. The average size driver clubhead and driver length in 2002 is 325cc and 45.25 inches. In 1992 average clubhead speed on the U.S. PGA Tour was 106 mph. Average clubhead speed today is 112 mph. This increase in clubhead speed (and the ability to generate distance) involves the player and the club. The golf ball has not been hit yet.

The 1992 Masters Champion was Fred Couples, who stood 5 feet 11 inches tall, weighed 180 pounds and could barely bench press 155 pounds. The 2002 Masters Champion Tiger Woods stands 6 feet 1 inch tall, weighs 185 pounds and could bench press 410 pounds.
Organic management plan offers best results

To the Editor,
Here at Lahontan Golf Club, we strive to be 100 percent organic through sustainable agriculture, by feeding the soil, can be subjective and is open to discussion. Turf conditions, however, we realize that not the plant ("Organic golf activists score the time for organic golf has arrived" The time for organic golf has arrived"

The biggest increase in length has been played at 20 different courses. If it is the professional game that we are concerned about and this involves, at best, only 60 to 70 courses annually, why is there a debate that 16,000 golf courses are at risk due to the advances in the golf equipment technology?

In 1960 there were 6,000 golf courses in the United States. Today, there are more than 16,000. Over the past 42 years, more than 10,000 golf courses have been constructed. Since these new courses have been built anticipating the evolution of technology, why have only two (Bellerive in 1964 and Hazeltine in 1970) been selected to host a USGA Men’s Open? Doesn’t it seem logical that a modern course would be the best test of the modern player and the modern power game?

Continuing with the assumption contemporary designs anticipated the arrival of today’s power game, why have we not considered selecting contemporary sites to host a USGA Men’s Open? For example why not consider staging an event at Pumpkin Ridge GC or Bandon Dunes GC in Oregon, Double Eagle GC in Ohio, Bull Rock GC in Maryland, or Whistling Straits in Wisconsin?

Why is it that courses designed by Pete Dye and used by the PGA Tour (TPC) or other PGA Tour venues hold up well as contemporary challenges for today’s professional golfers, but not one of Mr. Dye’s venues ever has been selected by the USGA to host one of its men’s championships?

And why is it that we only hear from player/architects such as Jack Nicklaus, Arnold Palmer and Greg Norman concerning “limited flight” golf balls and a “one ball fit’s all” solution, but we do not hear from PGA Tour commissioner Finchem or players such as Tiger Woods, David Duval, Phil Mickelson or Davis Love on the subject? After all, it is the equipment used by the contemporary PGA Tour players where the crucibles are demanding change?

Former USGA technical director Frank Thomas stated, “We should not worry about major distance changes in the future because the laws of physics will continue to prevail. Why is his research and viewpoint (www.franktygolf.com) being ignored? Each and every equipment rule in place has resulted from a working group and take relationship between the game’s rules (the USGA and the R&A) and those who are ruled (the golf equipment manufacturers). We have ideas about the courses. Most of this equipment-related change is not necessarily true, but the primary problem is cost. It is a simple equation. The farther players can hit the ball, the more length and width we need for safe and enjoyable golf courses. This additional acreage means more development costs and greater maintenance budgets. These additional expenses are most likely going to be passed on to the golfer in the form of higher greens fees.

Lanny Wadkins’ comment recently that the golf industry is flat and "mirrored in the same recession as the rest of the U.S." is true, but the primary problem is cost. It is a simple equation. The farther players can hit the ball, the more length and width we need for safe and enjoyable golf courses. This additional acreage means more development costs and greater maintenance budgets. These additional expenses are most likely going to be passed on to the golfer in the form of higher greens fees.

Let’s hope that we find a cure-all for moss, no matter what product it is, and no matter who makes it.

Best regards,
Kevin J. Ross, CGCS
The Country Club of the Rockies
Edwards, Colo.

A line in the sand

Continued from previous page

safety reasons then construction, growth and maintenance costs increase up to 17 percent. How many developers will be discouraged from including a golf course in their future projects if acreage requirements continue to escalate?

Wally Uhlewn’s comment recently that the golf industry is flat and "mirrored in the same recession as the rest of the U.S." is true, but the primary problem is cost. It is a simple equation. The farther players can hit the ball, the more length and width we need for safe and enjoyable golf courses. This additional acreage means more development costs and greater maintenance budgets. These additional expenses are most likely going to be passed on to the golfer in the form of higher greens fees.

Let’s hope that we find a cure-all for moss, no matter what product it is, and no matter who makes it.

Best regards,
Kevin J. Ross, CGCS
The Country Club of the Rockies
Edwards, Colo.

We want to hear from you

Letters to the editor are an integral part of GCN, so let your voice be heard. Send all correspondence to:
ANDREW OVERBECK, EDITOR
GOLF COURSE NEWS
106 LAFAYETTE STREET
PO BOX 997
YARMOUTH, ME 04096
FAX: 207-646-0679
AOVERBECK@GOLFCOURSENEWS.COM

JUNE 2002 7

COMMENTS
**MAINTENANCE**

**BRIEFS**

**LOCHMERE GC HIRES GENE CREWS**

CARY, N.C. — Lochmere Golf Course has hired Gene Crews to oversee all course maintenance and upgrading activities at the club. He will be in charge of improving the sand traps, fairways and drainage systems at the semi-private layout owned and operated by ClubCorp Golf of North Carolina, a subsidiary of Club Corp USA. Crews has already implemented drainage work by installing new French drains and has made improvements to the bunkers.

**SCOFFIELD JOINS REDTAIL LANDING**

EDMONTON, Alberta, Canada — Allan Scoffield has joined RedTail Landing Golf Club as superintendent. Scoffield, a graduate from the Turfgrass Management program at Olds College, previously worked at Vancouver Golf Club. RedTail Landing, which was designed and is being built by Sid Puddicome Associates, is currently under construction and is slated to open in spring 2003. In addition to the 18-hole, par 72 golf course, the project will feature a 19-acre learning facility and an 18-hole putting course.

**TAYLOR JOINS WOODCREEK GC**

CALABASAS, Calif. — Environmental Golf has appointed Glynne Taylor as superintendent at Woodcreek Golf Course in Modesto. Taylor, an employee of Environmental Industries, Inc. since 1981, previously served as superintendent at The Links at River Lakes Ranch in Bakersfield where he was responsible for the grow-in and long-term maintenance. At Woodcreek, Taylor will manage the business unit dedicated to golf course maintenance and will begin the efforts to improve the overall golf course maintenance operations. Taylor is a graduate of Pierce College with a degree in agronomy and ornamental horticulture.

**SurfRax system simplifies wastewater cleanup**

By ANDREW OVERBECK

STUART, Fla. — Robert Akre and his company Terra kinetics have developed a low-cost, low-maintenance system to deal with wastewater from golf course washdown areas. The system is completely gravity fed and has no mechanical parts or filters that need to be maintained.

To date the company's SurfRax water protection wash rack system has been installed at two Florida courses and Akre is eager to expand Terra kinetics' geographical reach.

The system, which Akre and his partners developed over the last two years, uses existing technology to clean equipment washdown wastewater.

"SurfRax is a gravity fed system that takes the waste stream from an elevated wash pad and sends it through a series of collection baskets to filter out sand and grass clippings," said Akre. "Hydrocarbon absorption pads collect any oil or grease and the water eventually ends up in a dry phytoremediation retention area."

The 600-square-foot retention area absorbs the cleaned water, which is then filtered through an installed soil matrix and drains away. So far Akre and his team have installed paspalum turf to act as the final filter.

According to Akre, the system costs $25,000 to install and requires minimal yearly maintenance. The baskets need to be emptied daily and the hydrocarbon pads, which cost $40 a piece, need to be changed every six months. In comparison, said Akre, a closed-loop water recycling system can cost between $40,000 and $100,000.

**Drought persists in East, intensifies out West**

By ANDREW OVERBECK

SACO, Maine — According to a report by the National Oceanic and Atmospheric Administration's (NOAA) Climate Prediction Center, drought conditions are likely to persist until mid-summer on the East Coast and well into August in certain areas of the Southwest.

NOAA officials said in mid-April that wetter weather had improved reservoir storage and well levels along the Eastern Seaboard, but that severe to extreme drought caused by rainfall deficits ranging from nine to 12 inches will cause water shortages to last through July.

Out West, a near-record dry winter season has caused drought to develop or intensify from southern California to western New Mexico and northward into parts of Nevada, Utah and Colorado. Cities in New Mexico and parts of Colorado are already considering water restrictions and the entire area could be extremely vulnerable to wildfires this summer.

**Golf courses can coexist with diving rap tors**

By JAMES W. PARKER, PH.D.

All good raptor parents will dive at perceived predators when they think their nests are threatened. Now that some species are adapting to urban environments, it is clear that golf courses and nearby areas can be preferred nesting habitat for species like red-tailed buzzard-hawks and, most of all, in Kansas, Oklahoma, Texas and New Mexico, the Mississippi kite.

Since the late 1970s, these sleek, gray and black, falcon-shaped raptors have gained fame and misfortune at the hands of humans because of their inclination to nest in large colonies on golf courses and, sometimes, to defend their nests aggressively. What is going on when

**Clopyralid use on courses protected in Calif. and Wash.**

By ANDREW OVERBECK

INDIANAPOLIS — In response to the California Department of Pesticide Regulations' (CDPR) decision to cancel certain uses of clopyralid-containing herbicides, Dow AgroSciences and Riverdale Chemical Co. have notified the U.S. Environmental Protection Agency of changes to product labels that will prohibit clopyralid's future use on California residential lawns.

The Washington State Department of Agriculture (WSDA) enacted a similar ban on clopyralid earlier this year. Both bans were prompted by reports that trace levels of the long-lasting herbicide were found in compost. The issue is especially important in California where many communities promote the recycling of grass clippings. While Dow AgroSciences' clopyralid herbicides have label restrictions on composting grass clippings treated with the product, if decided to prohibit home lawn use in order to head off a full-scale ban.

According to Dow AgroSciences spokesman Gary Hamlin, clopyralid products (Lontrel and Confront) can still be applied by golf courses in both states.

"The CDPR was focused on the residential use of clopyralid because a vast majority of golf courses don't compost clippings off site," said Hamlin. "In Washington state, they have also decided to exempt golf courses from the ban. However there is still some legislation pending in California."

The California Golf Course Superintendents Association (CGCSA) is currently lobbying for species protection.
Nicholson wrapping up work at Wilderness Ridge

By ANDREW OVERBECK

LINCOLN, Neb. — By the time superintendent Derek Nicholson is completely finished with the construction of the 27-hole Wilderness Ridge Golf Course here, he will have planted more than 5,000 trees, built 6,000 feet of man-made streams and waterfalls, and installed more than 5,000 irrigation heads.

Nicholson, who has been working on golf courses for 17 years, started at Wilderness Ridge a full 18 months before seed hit the ground. Because the owners, HomeRealty, the Ridge Development Co., and landowner Richard Large, wanted to build a totally unique golf course development, Nicholson spent a year creating the stream beds and waterfalls that run throughout the property.

"They wanted to make the course unique," said Nicholson. "The owners brought in more than 300 train car loads of granite from Minnesota for the first year all we did was handle rock. I had a staff that did nothing but throw rock in streams for a whole summer."

The layout, which was designed by local golf pro Jim White and golf course architect Grant Wencel and opened for play last year, reaches its crescendo at the signature 14th hole that features an elevated island green that is backed by a 50-foot high rock wall on one side and a 40-foot waterfall on the other side.

MANAGING RUNOFF

The water features, however, have a purpose beyond visual effect. The course is located adjacent to a local nature preserve, so the layout was designed so that all course run off would be collected by the 21 lakes and ponds on the site.

"No water leaves here," said Nicholson. "It all drains into the lake system."

During construction, Nicholson did a study on how much nitrogen and phosphorous leaked through the greens. The results helped him design his fertility program. "It taught me how much fertility is lost during irrigation and rain events," he said.

According to Nicholson, a good fertility program is crucial to the health of a course. "I try to spray as little as possible," he said. "I believe that if you have a good fertility program and if you water properly, it will do wonders for your spraying program."

The runoff and water collection also provides a steady water supply for the course and its extensive water features. Nicholson is not only responsible for the irrigation of the golf course, but also for running lines and heads to the property lines of the 350-house development.

The golf course runs pretty much wall to wall," said Nicholson. "I have bluegrass roughs that I have to maintain up to the backyards of houses."

During the peak season, the course will use 1.5 million gallons of water a night and the water features and some ponds are fed by three wells. Nicholson estimates that after he is done extending the irrigation system to the property lines, the course will have more than 5,000 irrigation heads and a pump station that can handle 3,200 gallons per minute.

LOOKING TO THE FUTURE

With construction still going on, how does Nicholson keep the bentgrass turf at the high-end public course in good shape? "I try to spray as little as possible," he said. "I believe that if you have a good fertility program and if you water properly, it will do wonders for your spraying program."

Nicholson handles day-to-day duties allowing Nicholson to handle the overall picture. For Nicholson, the overall picture, once all the final projects are wrapped up, includes gaining Audubon certification, becoming a certified golf course superintendent and more.

"The course turned out great," he said. "I envision big things here, like a Nebraska Open or a Buy.com Tour event."
Green Touch Industries rolls out custom bed rail rack system

BY ANDREW OVERBECK

WEST PALM BEACH, Fla. — Green Touch Industries is attacking the utility vehicle market with the full-scale rollout of its new bed rail rack organizing system that can be adapted to most utility vehicles on the market.

The company, which has been in business for 12 years, got its start in the golf industry as an allied partner with John Deere distributors. Last year Green Touch unveiled its bed rail rack system that allowed it to more easily expand beyond the John Deere partnership. They now offer packages for Club Car, Toro, E-Z-GO and Cub Cadet. For the most part the rail systems are installed by superintendents as an aftermarket accessory.

"Before we had a complicated inventory with a different rack for each brand," said Green Touch's David Sargent. "Now we offer a bolt-on system that requires little drilling. We have a bolt-on rail on each side and they are connected in the front of the bed with a torsion bar, which eliminates any chance of damaging the bed by bending or twisting.

"With the more heavy duty models, the rails are set into the stake pockets. That allows superintendents to slide the rack in and out as necessary," he added.

According to Sargent, the benefits of organizing racks are numerous. "Crews can go out to the job site with backpack blowers, line trimmers and hedge trimmers thrown in the back and still have room to pick up debris and throw it in the back," he said. "They also don't have to take all the equipment out just to get to one thing.

New utility vehicle players make a move

Continued from page 1

POLARIS PROFESSIONAL SERIES

"There are not a whole lot of barriers to entry in this market," said Erik Memmo, developer management for Polaris who also worked for E-Z-GO Textron for five years. We have made products for recreational use that have doubled as vehicles on golf courses and we are now going to apply those directly in the golf market."

Polaris has set up a separate division, Polaris Professional Series, dedicated to the golf and turf market. We don't build a derivative of an ATV or a golf car or an electric motors and IQ to do something similar on the utility vehicle side. But we will obviously have to be more heavy-duty."

By ANDREW OVERBECK

Club Car has rolled out its Transporter 472 utility vehicle that offers seating for four or an extra-long cargo bed. Broyhill has unveiled the TerraSport that offers a segmented cargo area. Toro has upgraded its Workman 3000 and 4000 series utility vehicles by adding new engines. The company has also added front hydraulic disc brakes to its Workman 2110.

ROOM FOR FOUR

Club Car's new 472 utility vehicle is a four-passenger version of its existing 272 utility vehicle. The 472, however, has a bigger 13-hp engine, a heavy-duty transaxle and bigger gears. The new features also carry over into the 272 model, but the 13-hp engine is optional.

The four passenger seating is also optional on the 472. Instead of the four-by-four model can go through water 27 inches deep. The ATV line features liquid-cooled 499 cc engines, and the four-by-four model comes with front and back racks, and the L1H has a rear cargo flatch with a payload capacity of 800 pounds. All models are available with turf tires. Prices range from $6,500 for the ATV to $9,900 for the UTVs.

The TerraSport, however, has a bigger 13-hp engine. Pricing for the vehicle starts at $8,850. "This provides the superintendent with a crew vehicle or a mobile work station," said Mike Packer, vice president of utility vehicles for Club Car. "It also gives us a niche. No one else has anything like it."

Packer added that Club Car is working on adapting its electric motor and IQ platform to utility vehicles. "We believe there is an opportunity with electric motors and IQ to do something similar on the utility vehicle side. But it will obviously have to be more heavy-duty."

THE ONE-THIRD, TWO-THIRDS BED

Broyhill, an admitted niche manufacturer, has taken its marketing concept one step further with its TerraSport, a new version of its existing TerraForce unit.

The TerraSport, however, has a unique segmented cargo bed that allows a tool box, sprayer tank or paint tank to sit between the seats and the separate 1,000 pound capacity cargo bed. The unit has a total cargo capacity of 1,500 pounds and features upgraded four-wheel hydraulic brakes, full suspension and a 16-hp Briggs and Stratton gas engine. Pricing for the vehicle starts at $8,995.

"The bed configuration allows for a more versatile vehicle that can handle a sprayer or a cooler without interrupting the usage of the cargo box," said Broyhill's sales manager Myron Broyhill. "This point to include more standard features such as manual dump bed, a class-one hitch, a front bumper, built in storage areas and a 12-volt power point. The unit will cost around $8,500 and be available from the company's network of 1,700 dealers."

FACING THE COMPETITION

The top manufacturers, however, said the two new entrants to the market have their work cut out for them. "They say it is a growing market for them because they have never been in it," said Neil Borenstein, Toro's marketing manager for vehicles. "We have set ourselves apart because we concentrate on the golf and turf market. We don't build a derivative of an ATV or a golf car or an agricultural machine."

At the same time, Toro and other manufacturers including Club Car and E-Z-GO are looking to expand into the consumer side of the business where they see growth - and also competition from Polaris and Cub Cadet.

"I look at Polaris and Cub Cadet and see good companies, but they don't have the relationships with golf courses and it is questionable that they understand the needs of the superintendent," said Mike Packer, vice president of utility vehicles for Club Car. "Now in the consumer markets like hunting and recreation, they will be a force to contend with."

Both Polaris and Cub Cadet remain undaunted, however. Cub Cadet is planning to introduce another utility vehicle this fall and Polaris' Memmo wouldn't rule out further expansion into the golf course industry.

"We are going to look at any opportunity out there that might grow our division," said Memmo. "We want to make our name as synonymous with work as it is with recreation."
Make presentations more effective with Photoshop

By KEVIN J. ROSS, CGCS

Even the best superintendents can have a hard time expressing ideas to their board of directors and greens committees. While we may think our point is clear, there is a good possibility that those on the other side of the table may be envisioning something totally different.

To increase the effectiveness of presentation, it is helpful to use picture-editing software, such as Photoshop, to manipulate a photo to illustrate an idea. The full version of Photoshop is an extremely powerful and complex software program that is not truly needed by the non-professional. Photoshop LE (limited edition) is a popular version that is included in most scanner software bundles, and also can be purchased through computer stores and catalogs.

One of the most useful Photoshop tools offers the option to delete and add certain features in a photo. By using this option, golf course presentations can be enhanced tremendously.

For example, if an architect is proposing the removal of a tree from an area on the golf course, you can easily show the before and after (see example above). Since removing a tree is a highly debated subject among the greens committee and/or board of directors, this can allow for a more educated decision before embarking on any changes/renovations to the golf course.

Many other golf course features can also be added to or deleted from photos to aid presentations and decision-making. Besides trees, some other popular features could be bunkers, cart paths and mounding, just to name a few.

The powerful ability to view before and after photos for presentations can be a great help in Green Touch

Continued from previous page

so productivity is greatly increased." Sargent also added that having everything secured to the rack system reduces equipment damage and improves worker safety.

Since the introduction of the new bed rail line and exhibiting at the Golf Course Superintendents of America Show in Orlando, Green Touch has experienced strong growth.

"We have gone from never setting up entire courses, to doing six in the last three months," he said. "It is a big market [opportunity] and we are making a push to make sure that we provide the organization solution. We see nothing but room for growth."
Dealing with diving raptors

Continued from page 8

raptors (hawks, owls, and their talon-footed relatives) dive at golfers, and what can and should be done, and by whom?

Misunderstanding, fear, irritation and rarely minor injury, such as scratched scalps, have occurred in hundreds of incidents. Consequently, a lot of nesting kites, nests and their contents have been "removed," sometimes fatally, illegally and unnecessarily. This human/kite conflict is not going to go away, and it could expand to other states.

I have been "removing," sometimes with only local, state, federal and other wildlife biologists and game wardens.

PEOPLE MANAGEMENT

Education efforts should be strong, with much of the above kite biology being explained to citizens and organizations. Kites have the admirable quality of being able to adapt to how humans have changed habitat, and common sense, tolerance and simple solutions should be used. Often, reasonable people simply need to know enough about the kites to realize that adapting one's behavior eliminates virtually all real danger.

For changes in behavior advice people to: become aware of the location of the nest and the usual flight paths of the kites; wear sturdy hats; carry, but do not wave an object, such as a golf club near and above the head; watch the kite as it dives and wave arms vigorously when the kite gets close; and most importantly, reroute one's walking as much as possible to avoid the nest tree.

Don't bother with nets, noisemakers, or other "repellents," including models of large owls or nesting kites placed in trees; these require too much time and trouble, and are usually ineffective.

KITE MANAGEMENT

Rarely, active management is required only if it appears that diving is unusually problematic or that illegal citizen action to stop diving is likely to result. If all else fails, nestling(s), preferably at least one-week old, can be removed from a nest by legally authorized professionals, and the nest destroyed. Nestlings should be transferred to a nest of another kite pair in a location where diving will not be an issue, or to a suitable wildlife rehabilitator. Kites will accept foster nestlings and, with proper regard for nest and nestling sizes, will usually be able to raise three nestlings, sometimes four. It is best not to remove eggs because kites at such nests will likely renest very quickly, sometimes nearby.

James W. Purker, Ph.D. is a raptor ecologist and ecological educator who has studied Mississippi kites since 1968. He operates Aerie East Environmental Education Programs and Foundation in Maine, and has published both popular and scientific manuscripts and book chapters on the kite, other raptors and diving by raptors. He can be contacted at 207-778-9437 or aerieast@somtel.com.

SurfRax

Continued from page 8

and $80,000 to install and are more costly to maintain.

Harry Hansen, superintendent of Miisles Grant Country Club in Stuart, installed the SurfRax system last fall after hearing about the one TerraMatics put in at Fort Lauderdale (FL) Country Club.

Harry Hansen, superintendent of Miisles Grant Country Club in Stuart, installed the SurfRax system last fall after hearing about the one TerraMatics put in at Fort Lauderdale (FL) Country Club.

"I had a finite amount of money and was upgrading my chemical mixing and loading and wash rack area. We decided to go with SurfRax because I could get a lot more for the money than I could with a recycled system," said Hansen. According to Hansen, the simplicity was a driving factor in the decision, but more importantly, he was attracted because the system meets all of Florida Department of Environmental Protection's (DEP) guidelines. "I was working with the DEP to gain compliance certificates for each system that TerraMatics installs. "Before we had no system other than to just go outside and wash it off. No one is forcing us to do this, but if you have a complaint then you have problem," Hansen said. "I wanted to stay ahead of the game."

New utility vehicle offerings

Continued from page 10

Sargisson. "The TerraSport will be a good fit for the golf and sports turf market."

UPGRADED POWER AND BRAKES

While Toro does not have any brand new products this year, the company has made significant improvements to two of its existing models. Toro is now offering the Heavy-Duty Workman 3200 and 4200 models with 31hp gas Briggs and Stratton Diabashi engines and the 3200 and 4300 models with 26.5hp diesel engines. The 3100 now comes with a 23-hp Kohler engine. "The new engines increase its ability to tow and pull loads," said Neil Borenstein, Toro's marketing manager for vehicles. "The total payload is now up over 2,700 pounds."

The Workman 2110 also features extra cargo capacity thanks to new hydraulic front brakes and a more powerful 16hp Briggs and Stratton Vanguard engine. "The unit can carry 1,200 pounds, where in the past it could just take 800 pounds," said Borenstein.

Toro added hydraulic front brakes to the 2110
Cahoon Plantation achieves Audubon certification

CHESAPEAKE, Va. — The Isles Golf Club at Cahoon Plantation, maintained by International Golf Maintenance, has achieved designation as a Certified Audubon Cooperative Sanctuary by the Audubon Cooperative Sanctuary System.

"For integrated pest management, our focus was to improve soil and turf health, which produces a plant that is better able to withstand stress," said Tyler Minamyer, superintendent. "To do this, we instituted the use of slow-release fertilizers and created no-spray zones."

To meet the other Audubon requirements, Minamyer reduced irrigated turf area by installing part-circle heads and using wetting agents; reduced run-off by installing vegetative buffers; increased wildlife habitat by naturalizing a 10-acre area; and started an education program with Tidewater Community College. Cahoon Plantation, a public course designed Ault, Clark and Associates, Ltd. of Kensington, Md., is the eighth course in Virginia and the 376th course in the world to receive certification.

Drought

Continued from page 8

will be the number one issue for golf courses this summer.

"Last year the Northeast had the worst winter damage ever, and this year we are having the earliest spring ever," said Skorulski. "But we are also setting records for some of the driest weather ever. Although we have had some good precipitation recently, many places are still far behind."

Oatis said regulators are already checking up on golf courses and that superintendents need to follow the law or risk damaging the industry's image. "The legislation during the last drought in 1999 was poorly written but this year many states understand golf course needs," he said. "Regulators have already gone out and seen major violations, which is embarrassing. It is imperative that we follow these restrictions."

In light of this, Skorulski urged courses to take water conservation steps such as raising the height of cut and refraining from planting any new trees or annuals.

Of the superintendents in attendance at the Maine meeting, none admitted to having severe water problems, but many said they had already put water conservation plans in place in preparation for a tough summer.

Clopyralid use protected

Continued from page 8

the state assembly to protect golf course use. According to Jim Hustling, the association’s government relations chairman and superintendent at Woodbridge (Calif.) Golf and Country Club, bill AB 2356 has been significantly watered down since its introduction and will probably not threaten golf courses. "We took our lead from Washington state [on the clopyralid ban]. They rallied first and gave us a bookmark on where to start," Hustling said. "The language of the bill has been amended and many of the clopyralid references have been removed. We have made the case that golf courses do not compost grass clippings, so it looks like we will still be able to use the product."

While clopyralid use in California and Washington appears secure for now, Hamlin said superintendents should heed the label. "If superintendents are using clopyralid and sending clippings off site or are composting clippings on site, they need to be aware of the label restrictions," he said.

Other preemergents talk a lot about crabgrass. With Pendulum, it never comes up.

Pendulum herbicide consistently controls crabgrass better than other preemergent herbicides. What more can we say? How about Pendulum controls a broader spectrum of weeds than any other preemergent—more than 40 grassy and broadleaf weeds, such as oxalis and spurge, in all. It also controls costs, to offer you greater value. Plus, Pendulum comes in granular and liquid formulations, and BASF pendimethalin is available on fertilizer from Scotts and Helena, for maximum application flexibility.

With Pendulum, there’s just so much more to talk about than crabgrass. To learn more about why everyone’s talking about Pendulum, call 1-800-545-9525 or visit www.turffacts.com. Always read and follow label directions.

WE DON’T MAKE THE TURF. WE MAKE IT BETTER.
Ace brings corporate golf to Philly

By Derek Rice

LAFAYETTE HILL, Pa. — As more and more corporations look for ways to set themselves apart from their competitors and market themselves uniquely, many are turning to corporate-oriented golf courses as a means to accomplish those goals.

One of those corporations is ACE INA Holdings Inc., a Philadelphia-based insurer, which is currently developing The ACE Club, a Gary Player-designed course 25 minutes from downtown Philadelphia. Slated for a mid-2003 opening, the club will serve a valuable purpose in the company’s marketing initiatives, said Dominic Frederico, chairman and CEO of ACE INA.

"Golf has proven to be a critical and effective component of our corporate marketing initiatives," Frederico said. "In the insurance business, like most others, customer relationships are key factors in business success. We believe the ACE Club will serve as a tool for members to use in strengthening those relationships."

While this will be the company’s first golf course ownership venture, it is not ACE’s first foray into the golf business. For the last five years, the company has sponsored the ACE Group Classic, a Senior PGA Tour event held in Naples, Fla.

Player, who collaborated on the work with senior design associate Warren Henderson said because of the course’s setting, the ACE Club will be a "testament to strategic design" that will "consistently capture every golfer’s interest."
Hopkinton CC gets facelift

FRAMINGHAM, Mass. — Triad Development and Management LLC has undertaken a "dramatic transformation" of the former Saddle Hill Country Club here into a new private club.

Architect Ian Scott-Taylor is overseeing the project for Triad, which was determined to turn the property into a more traditional golf course.

Tim Gordon, general manager at Hopkinton, said Scott-Taylor should transform the 18-hole track into "something special.

Construction is underway, and Gordon said he expects the renovated course to open for play in July or August.

In drawing up plans for renovation, Scott-Taylor said he looked to turn a 40-year-old functional course situated squarely in the Boston market into a modern classic in the vein of those designed by Donald Ross, Alister Mackenzie and A.W. Tillinghast.

"It's a big thrill for me to have a club ask me to do what comes naturally," Scott-Taylor said.

Eighty-five bunkers, as well as contouring and all-new tee complexes, will be added to the course. Those bunkers, Scott-Taylor said, are designed in the early style of the great architects.

"It's what I've always wanted to do in the States — get a golf course and turn it back to that era," he said.

Scott-Taylor is also reversing the course's existing routing, similar to how Augusta National changed its original fourth and fifth holes to what are now the famous 12th and 13th "Amen Corner" holes, he said.

The new Hopkinton CC will present unique challenges that the existing course doesn't offer, and it will take a few rounds to adjust to those changes, Scott-Taylor said.

"Most of the members who come out and play will call me Lucifer the first couple of rounds," Scott-Taylor said. "But once they start discovering how to play the course and learn its intricacies, they will start to play better."

Gordon said that regrading the primary and secondary roughs with various kinds of fescues will help create the old-style look the club is seeking.

"The idea is that it looks, feels and smells like it has been here and is established," Gordon said. "The Boston area has seen a lot of new courses open in the last five years, but we didn't want to be a 'me too.' The tradition is what it's all about. It's what everyone loves."

Planned construction also includes added amenities like a swimming pool, tennis courts and a full-service clubhouse.

"The idea is that it looks, feels and smells like it has been here and is established," Gordon said. "The Boston area has seen a lot of new courses open in the last five years, but we didn't want to be a 'me too.' The tradition is what it's all about. It's what everyone loves."

Planned construction also includes added amenities like a swimming pool, tennis courts and a full-service clubhouse.
Establishing priorities key to long-range plan

Editor's note: This is the second in a series of articles outlining the renovation process at Willoughby Golf Club in Stuart, Fla.

By KEVIN DOWNING

STUART, Fla. — Every golf course needs a facelift every once in a while to keep pace with new turf trends or to stay in touch with member or golfer needs. No matter what changes are discussed the thought process needs to be comprehensive enough to take into consideration all levels of golfers and the eventual cost of the reconstruction programs. Assembling a document that clearly defines these goals and objectives is in effect the long-range plan for a golf club.

Most long-range plans can be coordinated to structure a program that can be implemented in a three-to-five-year time frame. At Willoughby Golf Club, we chose to create a plan that could condense major projects and expenditures into a two-year window to minimize interference for the membership. Once again, since the club has experienced a great deal of consistency with the members and management, this process of planning and prioritizing truly became an enrichment program for the course. The first two green committees generated the direct feedback and this included my ongoing comments and reports suggesting potential course enhancements. We established two important areas in which to identify course adjustments:

• Course Improvements: Any work performed on the course had to be recommended by the greens committee, approved by the board of directors and supported by the operating budget. This included tee regrassing, drainage, path repairs or rerouting, landscape changes or bunker refurbishment.

• Course Modifications: These changes had to be recommended to the greens chairman by either the golf course manager or the committee and approved by the board of directors. The funds for these projects came from capital budgets and included as greens modification, additional bunkering and/or substantial redesign work.

Once we developed these categories, we were able to establish priorities and focus on the goals and objectives for future projects. At this phase of the planning process we approached the Arthur Hills design firm and had them begin the process of analyzing the course and evaluating our priority list.

Most courses should utilize a golf course architecture firm to assist in this process since the planning can be related to updated standards in the design and construction industry. Establishing needs for architectural drawings or budget parameters can legitimize the entire project and should help the eventual approval procedures. The American Society of Golf Course Architects provides a wonderful booklet (Remodeling Your Golf Course), that helps determine the usefulness of retaining a golf architect.

SELLING TO THE MEMBERSHIP

For us, cost analysis quickly became an issue in establishing...
Empire Ranch
Continued from page 14

The city searched for someone to take on the construction of a public course, but suitors were few because of the challenges to building and the lease structure proposed. After two years of trying to build the course itself, the city decided it didn’t want to be in the golf course building business. By this time, the property had seen four different owners. The city returned the land to the developers with the stipulation that a public course be built.

“We first looked at the site five years ago when of one the new developers, BGP Group of Texas, brought it to our attention. The concept of doing a golf project within a housing development was very different from the course developments we have done so we were apprehensive. We also like to have control of the courses that we build and then lease out their operation,” said Jim Zurbuchin, partner at B and Z Property, which developed the site. “We were contacted again and given the opportunity to purchase the site, which would give us more control. We took over ownership and built the course in less than two years.”

The course is a par-71 layout that plays to 6,668 yards from the back tees and has the challenge of several forced carries off of the tees over wetland areas. The site has 135 acres of maintained fairways using Dominant Blend bent for the greens, GQ ryegrass for the fairways, and fescues and natural grasses in the rough areas.

“We changed our approach here at Empire with an eye to having to service a large community. We have constructed a very large clubhouse that can double as a meeting place for community activities as well as service the golf operations. Now that the course is ready to open I am very happy with how it has turned out after all of this time,” Zurbuchin said.

The course will be the fourth B and Z course to be managed by ClubCorp. General Manager Kevin Williams said he plans to do 60,000 rounds a year once the facility is in full operation.

ACE Club
Continued from page 14

Members of the club will be able to walk the course with a caddie or take a golf car equipped with a global positioning system.

The 35,000-square-foot clubhouse, designed by Hillier with interiors by Dick Diedrich, will house a corporate boardroom with a view of the 18th green, as well as a private dining room that can double as a second, smaller meeting space. An additional 18,000 square feet of meeting space and 120 overnight accommodations will be available on-site at ACE Center, a conference facility for business meetings, executive retreats, training and management development programs.

Frederico said the facility will serve a growing need in the Philadelphia area.

“‘We see an unmet demand for a corporate-oriented facility in this marketplace,’ he said. "Many of the private-equity clubs in greater Philadelphia are traditionally family-focused, and the most prestigious have waiting lists for membership.’”
'The Skeptical Environmentalist' documents world’s improving state

By JOHN STRAWN

Inspired in part by a plan to refute the optimistic environmental views of the late American economist Julian Simon, a young Danish political scientist named Bjorn Lomborg set out in 1997 to assess the scientific basis for the more familiar gloomy scenario. He expected to prove that the environmentalists’ "litany" of impending doom is not as accurate as it sometimes seems, and to this end he has created a website, www.skepticalenvironmentalist.com, on which he documents and debates scientific results.

What Lomborg discovered instead, he reports at length in "The Skeptical Environmentalist," is a world which has improved. Despite its problems, the world is better than it used to be. Lomborg’s analysis of environmental development and environmental degradation shows that the trends are not as negative as they seem to be. Lomborg’s data, gleaned mainly from official documents of national governments and United Nations agencies, show that the total calories available per capita have grown rather than diminished even as the world population has increased.

In short, the "litany," while pointing toward a real problem, does not accurately summarize the state of the world. Chapter by chapter, subject by subject—energy depletion, food production, global warming, toxic pollution, water use—Lomborg presents a summary of the state of the environment that is far less pessimistic than the standard view. And this is from someone who describes himself as an "old leftwing Greenpeace member"—not an ideologue from a conservative think tank.

Lomborg’s analysis is not easy to summarize, especially given how thoroughly the book is written. But Lomborg, a Stanford University professor of political science, has a knack for making complex issues comprehensible. He implores the reader to consider the scientific evidence before making judgments.

Lomborg’s views have been fe-rociously attacked by both the environmental movement and scientists who specialize in problems such as global warming and biodiversity, whose work Lomborg had the audacity to evaluate and question. Lomborg’s analysis of environmental development and environmental degradation shows that the trends are not as negative as they seem to be. Lomborg’s data, gleaned mainly from official documents of national governments and United Nations agencies, show that the total calories available per capita have grown rather than diminished even as the world population has increased.

Lomborg’s analysis of environmental development and environmental degradation shows that the trends are not as negative as they seem to be. Lomborg’s data, gleaned mainly from official documents of national governments and United Nations agencies, show that the total calories available per capita have grown rather than diminished even as the world population has increased.

Lomborg’s analysis is not easy to summarize, especially given how thoroughly the book is written. But Lomborg, a Stanford University professor of political science, has a knack for making complex issues comprehensible. He implores the reader to consider the scientific evidence before making judgments.

The Planned  resort will include three golf courses, two luxury hotels and more than 3,000 residential sites. A spokesperson for Lumbermen’s was not available for comment.

John Strawn is the author of "Driving the Green" and a member of the golf course design firm Robert Trent Jones II in Palo Alto, Calif.
Fought-Lehman
Continued from page 14

DMB Golf, which developed and owns the club and surrounding community, recently opened a second course not too far from DC Ranch. Lehman said one of the motivations to improve DC Ranch was to prevent DMB's two properties from competing with one another. The company realized that in its current state, the course would run a distant second to the new property, Lehman said. "If you want to be able to compete with the other clubs in the area, you have to have greens that are going to be as good, as firm and as fast as possible," he said. Because of his touring schedule, Lehman said this project, as well as the firm's other projects—three in Arizona, one in California and two in Minnesota—are convenient for him. "Having these projects at home is extremely convenient because I can spend three or four hours a day making sure the bunkers are being done right and I can spend the afternoon practicing," Lehman said. "The other projects work out well because I usually visit them either when I'm leaving to go to a tournament or I'm coming from a tournament. So I'm visiting those places either once a week or once every two weeks."

Lehman said he prides himself on being very involved in each project the firm takes on, which is one reason he and Fought have limited the number of their projects. "This isn't a hobby or something I do in my spare time, this is my second career. I've been extremely involved in every project that we have done," Lehman said. "We don't do many, only enough where I feel I can continue to work on my game the way I want to."

Lehman said he got into architecture because it was something that interested him, and that the thrill he gets from watching his conceptualizations become reality matches that of sinking a long putt. "I just love watching a guy get in a 'dozer and shape a bunker," he said. "I could sit there all day long watching them build a big bunker."

Lehman said his firm brings a unique perspective because both have been professional golfers and architects, with Fought bringing a deep knowledge of architecture as well. "He's very skilled and proficient not only in playing but in design," Lehman said. "We have somebody in our office who understands completely all the phases of design and all the nuts and bolts, yet is a great player. That's such a nice blend, and I think that's the strength of our office offers."

Establishing long-range priorities
Continued from page 16

funding requirements. This tricky phase can sometimes sink a project, so be cautious to use conservative numbers that can be justified with realistic quotations. Setting up bid specifications that will provide the best turf in a short timeframe is essential to a renovation project. With all the basics in place, the task of selling the membership on protecting their "investment" became the main focus of the golf course management team and the greens committee.

We chose to initiate small focus group gatherings and added another series of small general membership meetings to explain the entire process, because technical questions about turfgrasses and soil mixes cannot be absorbed by most golfers in a quick newsletter or memorandum. The ultimate communication phase of the program began with the smaller meetings which allowed members to ask intelligent questions in an informal setting. We were able to personally address the questions and concerns of approximately 20 percent of the membership during this year-long "marketing" phase.

In the next issue of Golf Course News, we will focus on some of the bumps in the road we encountered and how the bidding process became the final sales tool.
NGF revamps project report

JUPITER, Fla. — The National Golf Foundation has replaced its Course Construction Activity Report, which was issued monthly, with its Web-based Golf Project Report. The redesign now includes search functions on golf course-related construction projects in the United States and is updated daily, rather than monthly.

Additionally, the categories have been expanded and the report redesigned to show proposed projects, projects in final planning, projects under construction and completed projects. Golf Course News will include the new numbers in its Databank section each month (see page 31).

Lane Henderson, member services manager, said the NGF changed its reporting procedures to give its members access to more timely and accurate data, which she said is critical in any business. She added that the searchability of the data will add value to the service.

Pellucid

Continued from page 14

that are very similar to each other but they don't share any geographic correlation," Koppenhaver said. "San Antonio behaves more like Birmingham, Ala., but nobody in their right mind would think of sticking San Antonio and Birmingham together."

Some MSAs share similar geographies, while others contain metropolitan areas across several states. For example, in the cluster with the highest rounds per household, 12 of the 21 markets are in Florida. In San Antonio's cluster, there are 21 markets in 17 states.

Pellucid has been working on its numbers and methodology for about a year now, and only went public with its bi-weekly newsletter in late April. The first issue addressed breaking down geographical barriers in looking at rounds played.

At press time, a future issue was slated to take on the difference in Pellucid's and the NGF's rounds played numbers for 2001.

"When we run the rounds data from last year, the number comes out to 508 million. The NGF's number, and my own number when we do it from consumer surveys, is between 602 million and 603 million," Koppenhaver said.

Jim O'Hara, vice president of research at the NGF, said the organization refutes Koppenhaver's claim. He said the NGF does report consumer-based numbers on a macro level, but that its consulting division relies on facility-based numbers for its research.

"We don't rely on the volume of consumer-based rounds to do our consulting work," O'Hara said. "The NGF golf demand index is a model that was built on 93,000 households throughout the United States, validated on an independent sample of over 70,000 households. We coupled that with our facility-based rounds played information to do our consulting work."

O'Hara also said that Koppenhaver himself relies on consumer-based numbers for some of his research.

"We would put our demand model up against his demand model any day of the week," he said.

Koppenhaver also plans to tackle the way the NGF and others segment golfers, which has traditionally been by rounds played. He said he will advocate using economic values instead.

"What I'm going to show is that just because somebody plays frequently, that doesn't necessarily mean they're of high value to us," he said. "At the end of the day, a guy playing 300 rounds and paying a $1,000 membership is not as valuable to us as somebody who's playing 10 rounds and paying $300 a round."

No matter what happens, Koppenhaver said he hopes to turn the industry on its ear and make people take notice that the traditional way isn't the only way to look at the industry.

"If you can't gather by now, we're going to try to write the whole book here," he said.
Troon looks to continue strong growth in 2002

By DEREK RICE

SCOTTSDALE, Ariz. — Troon Golf hopes the momentum it gained during a strong first quarter in which it added 10 new management contracts will carry over into the remainder of 2002, said Dana Garmany Troon's chairman and CEO.

"We're a little bit ahead of where we should be, and we hope we can continue," he said. "We think we'll pretty much do what we've projected in our budget, which is similar to what we did last year and the year before."

The only thing that will stand in the way, Garmany said, is if Troon decides it doesn't have the personnel to take on the project.

"Growing for us is really a matter of growing where we think we have the people to support those jobs," he said. "If we stop growing it will be because we can't staff the jobs or don't have the people to do it." Garmany said a large part of his company's growth can be attributed to the slow economy.

"For now, things are moving in a good direction and we've seen that the economy moving slower has, if anything, only speeded up the number of requests we've gotten to take a look at deals," he said.

With its management contract at Newport National in Newport, R.I., along with contracts in the Boston and New York areas, Troon is moving into the Northeast, a region where it hasn't had a strong presence. However, Garmany said, the

Continued on page 23

Redstone retains Houston flavor

By DEREK RICE

HOUSTON — Two years ago, if you asked Evan Johansen, the new CEO of Redstone Golf Management, where his company would be today, he probably would have told you Redstone would be a national golf course management company. Today, however, that goal is much different, with the company hoping to keep its management contracts close to its Houston home base.

Aside from the five-course Bear Trace, a track of Jack Nicklaus-designed courses in Tennessee, all of the 13 courses the company owns or manages are within a few miles of headquarters, Johansen said.

"We just decided we don't want to be absentee managers and owners," Johansen said. "We're 20 minutes from all our projects — with the exception of the Tennessee properties — so if something comes up and we need to go out and take a look at a green, our guys can be there in a short period of time. We just feel at this time this is our best strategy."

That strategy appears to be paying off for Redstone, which recently signed a 10-year agreement to host a PGA event, the Shell Houston Open. That opportunity came almost by accident, Johansen said. The PGA and the Houston Golf Association wanted to move the event out of The Woodlands and into the city itself, and had targeted the city-owned Memorial Park. That didn't sit too well with some in the community, who were unwilling to give up their park for the few weeks the tournament would have required.

"As that deal fell through, it became an option for us to host that tournament on one of our courses," Johansen said. "Redstone Golf Club (formerly El Dorado) is where we will host the tournament in 2002."

Continued on page 23

EMERALD GOLF LINKS NAMES NEW GM

EGG HARBOR TOWNSHIP, N.J. — Golf course owner and operator Billy Casper Golf has named Christopher Martin general manager at the Casper-managed Emerald Golf Links, a new 18-hole public course near Atlantic City.

Martin is currently managing final preparations for the Stephen Kay-designed course, which is scheduled to open in July. Prior to joining Emerald Links, Martin was general manager at The Bridges Golf Club and Guest Quarters in Abbottstown, Pa., and general manager at the Links at Challedon in Oakdale, Minn. The addition brings to nearly 50 the number of courses currently using the UpLink system. According to Jeff Connally, UpLink's founder and vice president, at the end of June, the company will have signed up more courses in a six-month period than at any other time in its history.

CRESTLINE TO MANAGE ROCKY GAP LODGE AND GOLF RESORT

MCLEAN, Va. — Crestline Capital Corp. has signed an agreement with the Maryland Economic Development Corp. for Crestline Hotels and Resorts to manage the 218-room Rocky Gap Lodge and Golf Resort in Flintstone, Md. Built in 1998, the property features a resort and a Jack Nicklaus-designed course located in the foothills of the Appalachian Mountains.

VGM teams with First Tee

By DEREK RICE

WATERLOO, Iowa — VGM Club, a golf buying alliance, has extended complimentary membership and buying power to The First Tee chapters as part of its initiatives to grow the game of golf.

The relationships are beneficial for both parties, said D. Jay Ellis, president of VGM Club. "They saw an opportunity for their facilities to be able to save money, and we saw an opportunity to be able to contribute to golf for a good cause," he said. "It's a win-win opportunity."

The First Tee is a five-year-old World Golf Foundation initiative dedicated to providing affordable golf access to everyone, especially children, who otherwise might not have an opportunity to play. Each of The First Tee's 85 golf learning facilities will be able to take advantage of VGM Club's relationships with 150 merchants and manufacturers to save money, and we saw an opportunity to provide our members with the ability to save money, and we saw an opportunity to be able to contribute to golf for a good cause," he said. "It's a win-win opportunity."

Our alliance can save member clubs an average of five to 10 percent on their bottom line if they use us just a little bit," he said. "They saw an opportunity for their facilities to be able to save money, and we saw an opportunity to be able to contribute to golf for a good cause," he said. "It's a win-win opportunity."

Ellis said VGM Club sees growing the game of golf as part of its mission, and the relationship with The First Tee will allow

Continued on next page
The InVicta Club World Alliance, facilities, has signed a partnership agreement with Strachan Management Ltd. Under the agreement, Strachan will be allowed to market and expand the InVicta Club program in Canada and the northeastern United States.

Under the InVicta alliance, 10 to 20 golf course owners are teamed in a local alliance and tied into the worldwide alliance. InVicta Club members receive reciprocal playing privileges at private clubs as well as preferred pricing and advanced booking privileges at daily-fee clubs.

"The alliance was designed for owners to drive members to their facilities," said Jim Hoppenrath, president of InVicta Club Inc. "So now you've got a competitive advantage over those guys who aren't a member of this alliance."

The alliance currently comprises 50 member clubs, with 50 more agreements in various stages of negotiation. Hoppenrath said, The goal is to have 1,000 clubs in the alliance, which he said will not add any administrative costs, based on the Web-based nature of the InVicta program.

"The key to this is creating a Web-based database to tap into so that as a member, you can show up at any InVicta facility and be verified and know your price point at that facility within a half-second," he said.

If InVicta tried to do this using a traditional call-center model, Hoppenrath said, the costs would quickly become prohibitive.

"With as many as 1,000 members, you could probably manage that, but if you're going to scale up to a million members, which is our goal, it's an administrative nightmare," he said. "You can't hire people fast enough and the cost is going to go through the roof."

A key feature to the InVicta plan that should be attractive to club owners, Hoppenrath said, is that they don't have to give up any control at their clubs, and they can continue with business as usual.

"We're not just a third party trying to line our pockets," he said. "We're trying to help these guys gain a competitive advantage in the marketplace today. This is just another tool in their belt to be able to sell."

The major challenge Hoppenrath faces in trying to sell the idea of this alliance is the traditional nature of golf and golf course owners.

"These guys are fiercely independent," he said. "It does take a while to get them to realize they're part of a bigger group. You can break a single pencil, but if you put 50 of them together, you can't break them. They're much stronger together than they are by themselves."

"Golf Course News is my best source for news about the golf course industry. I go through it cover to cover as soon as I pull it out of my mailbox. Keep up the good work keeping us informed!"

Eric von Hofen, Director of Agronomy
Calusa Pines Golf Club

"I am a raving fan of your publication. Thanks for keeping us in the loop on what's happening in the industry."

Ken Oehlers, Corporate Communications Manager
Arnold Palmer Golf Management

"Golf Course News – a most respectable publication in an age of creeping meatballism."

Robert Oeschle
Montco Products Corporation

"Thanks for the great story about our renovation project. As always, you guys are fair and accurate in your reporting and tell a good story, too."

Ed Esgar, Course Superintendent
Ravisloe Country Club

"You guys work at Golf Course News? That magazine has the freshest news!"

Scott Anderson, Area Manager
United Horticultural Supply

The industry's #1 source for news and information.
Redstone's Houston flavor
Continued from page 21

2003 and 2004."

For the remainder of the 10-year agreement, Johansen said, the tournament will be held on a new Rees Jones-designed course that will begin construction in early 2003.

“We’ve got some mitigation issues to sort out between now and then,” Johansen said. “There are a few nice wetlands on the property that we need to make sure we’re taking care of.

When completed, the facility will also include a par-three course for junior golf, also designed by Jones.

Johansen said he sees one reason Redstone can afford to remain local is that the Houston golf marketplace presents many opportunities, mainly because of heavy development in recent years.

“There’s been an awful lot of golf developed in Houston over the last four or five years,” Johansen said. “It was clearly underdeveloped five years ago, when we started our courses, and it’s probably been a little bit overdeveloped.”

With the exception of the Jones-designed course, Johansen said, Redstone will probably not be doing any development in the near term, although that is something the company may look to in the future.

“Certainly if there’s some distressed properties or some third-party management contracts that become available, that’s where we see our growth coming from in the next couple of years,” he said. “We would love to get back into the development at some point because we enjoy that part of it and we enjoy the relationships we have with some of the architects.”

Johansen said, ideally, Redstone will add six to eight courses to its portfolio in the next four to five years. Whether Redstone will take on these courses in an ownership capacity or as a third-party maintenance company remains to be seen, although the company is equally equipped for both, he added.

GOLF COURSE NEWS

An organic based fertilizer specifically designed for fairways

- Excellent color response
- Improved density & root mass
- Beneficial microbes

roots inc. tel: 800 342-6173 • www.rootsinc.com

Troon’s growth
Continued from page 21

company’s slow movement into the region has more to do with the red tape that accompanies any development than anything else.

“If anything it’s primarily because the stuff we’ve been looking at in that region has been development-related,” he said.

“We’re very happy with what we have and we certainly want to focus on the Northeast as well as the Northwest.”

Signs point to a recovery in Troon’s group division, Garmany said. Because the division handles corporate bookings, it has been most impacted by the slowing economy.

“My people are telling me that in the third and fourth quarters of this year, our group business is going to be coming back in a big way, so that’s a positive sign,” he said. “The corporations that we booked a lot of golf with just cut back on what they were doing, which is understandable.”

Garmany said the golf course management industry could use some good news on the economic front, particularly because the news from competitors like American Golf Corp. and ClubCorp has hurt the management industry as a whole.

“It’s a shame for us to see the bad news that is out there because it spoils the environment,” he said. “You get bankers and financing sources down on golf, so it’s very difficult to do different things.”
Owner settles ADA complaint

WASHINGTON — The Department of Justice has reached an agreement with Sun City Summerlin Community Association Inc., a Las Vegas-based owner and operator of three golf courses, to make its courses accessible to golfers with disabilities.

Under the agreement, the association will adopt a new policy to prohibit discrimination on the basis of disability and to allow power carts on paths, walkways and greens whenever one is necessary to allow someone with a disability to play on the course.

The settlement resolved a complaint filed by a golfer who requested a modification of the rules that restricted golf car use in areas of the courses where carts of any kind are prohibited, including greens. The complaint filed with the Department of Justice sought a modification of the policy, which resulted in limiting access to people who could walk some distance.

The golfer alleged that prior to the department’s investigation, Sun City had refused the request for modification of the policy.

Sun City has established and will maintain a written policy that modifies certain golf car and cart restrictions to allow access for golfers with disabilities. The policy covers all three Sun City Summerlin golf courses, including Eagle Crest, Highland Falls and Palm Valley. The policy also retains golf car restrictions to areas only upon showing that safety is a concern or that the physical integrity of the golf course is threatened.

Conservation easement

Continued from page 1

Sun City has established and will maintain a written policy that modifies certain golf car and cart restrictions to allow access for golfers with disabilities. The policy covers all three Sun City Summerlin golf courses, including Eagle Crest, Highland Falls and Palm Valley. The policy also retains golf car restrictions to areas only upon showing that safety is a concern or that the physical integrity of the golf course is threatened.

Recent advancements in golf car technology and horticulture have made it possible to provide access to most areas of golf courses without fear of damage.

"That easement basically says that's what the property can be used for, as a golf course, and if it's not used as a course, it becomes natural terrain," Kahn said.

Where the financial benefit goes to the golf course, Kahn said, is that the land is reappraised at the highest and best use, allowing fairways to have the same value as subdivided lots.

"So you can wind up with a golf course that will have a tax write-off of about half a million bucks, and they're allowed approximately 30 percent of that a year to write off against taxes on earnings," he said. "So it can become very substantial, particularly for golf courses that are quite profitable and paying a large tax."

The strategy is the result of a 1997 IRS decision that made it possible for recreational lands to qualify for conservation easement tax write-offs. Until that time, the program had been reserved for historical sites, farms and other types of properties.

Kahn, who is also a licensed Florida real estate transactor, did a valuation for a course he is familiar with and came up with a developed land value of more than $12 million after deducting things like infrastructure costs and present value. Based on that valuation, the owners could claim a $12 million write-off over a six-year period. When converted to tax savings, that amounts to hundreds of thousands of dollars over that period, Kahn said.

Through strategic planning, owners can conceivably extend the length of their write-off period by writing off groups of six holes and practice facilities in different years, Kahn said.

The one drawback to the plan, Kahn said, is that the easement is forever and can't be rescinded. "Once it's granted, it's in place until the sun burns out," he said. "Although we all know that if O.J. Simpson can get off, anyone who wants to throw enough money at it can probably get it reversed."
DiMinos: Lesco must improve sales and distribution

**By Andrew Overbeck**

CLEVELAND — Four months after joining the company as chief operating officer, Michael DiMinos has taken over the top spot as CEO of Lesco (GCN May 2002). In that short time, DiMinos has grasped the major challenges facing the beleaguered fertilizer manufacturer, supplier and distributor and has implemented a multi-step plan to bring the $500 million company back into the black. At press time, Lescos stock had risen 25.7 percent from $8.75 to $11.00.

DiMinos strategy is simple: leverage the huge amount of capital that Lesco has invested in manufacturing facilities by improving the companies selling and distribution capabilities. "The bottom line is almost anyone can get a lot of our molecules from almost anyone," DiMinos said. "So it really comes down to technical expertise and delivery." With that in mind, DiMinos and his team are revamping the companys distribution, sales force and point of sale system.

**HUB-AND-SPOKE DISTRIBUTION**

In a move to beat local and regional distributors and formulators, DiMinos said the company will dismantle part of its existing distribution network in favor of a hub-and-spoke system over the next 18 to 24 months. "We have a national presence, but we are getting hammered by these little guys and we have to be able to deal with them," he said. "Instead of making product at the factory and then storing it nearby and shipping it out when we need to, we are going to eliminate that step and bring inventory closer to the market."

Of the companys 16 distribution facilities, 10 to 12 will be relocated. In addition to improving customer service and product availability, DiMinos expects the cycling of

**Bayer AG one step closer to Aventis buyout**

**By Andrew Overbeck**

BERLIN — After getting the go-ahead from European Union (E.U.) antitrust officials for its purchase of Aventis CropScience in mid-April, Bayer AG is now waiting for approval from the U.S. Federal Trade Commission (FTC) for final clearance on the buyout. According to Bayer spokesman Guenter Forneck, a decision by the FTC was expected sometime in May. At press time, further information was not available.

As part of its approval of the proposed 7.3 billion euro ($6.4 billion) purchase of Aventis CropScience, the E.U. is forcing Bayer to divest several insecticides. According to Bayer, the divestiture of fipronil, ethoprole and acetamiprid (a new neonicotinoid) will lead to 600 million euros ($522 million).

**Fairway Golf Cars zeros in on adaptive car market**

**Continued on page 27**

**NEW PRODUCT OF THE MONTH**

**The GreensGroomer GreenSSLicer Spring Tine Rake**

GreenSSLicer WorldWide is ready with the GreensSSLicer Spring Tine Rake that allows fast, efficient dethatching of tees, fairways, and greens. The unit attaches to the GreensGroomer and combs through the turf pulling up thatch and removing runners. The GreensSSLicer consists of three rows of 28 tines spaced seven-eighths of an inch apart for complete coverage. Each row has infinite adjustment allowing the unit to be set at varying degrees of aggressiveness. For more information, contact 1-888-298-8852.

**FMC reorganizes specialty business**

PHILADELPHIA — FMC Corp. has reorganized its specialty products business in order to prepare for growth over the next two years. The specialty products business, maker of Tabstar, has joined efforts with FMCs agricultural products group to strengthen customer satisfaction and unify the company’s branding.

Under the reorganization, Laurie Tieckelmann will oversee combined customer service functions for the two business units as customer service manager. In addition, Maureen Thompson has been named turf and ornamental sales manager and Kim Watson has been appointed global development manager.

"The changes we have made in our staffing structure will enable us to unlock the synergies among various FMC businesses," said Don Claus, director of FMCs specialty products business.
Cleary chooses Lesco for Endorse launch

DAYTON, N.J. — Cleary Chemical has signed an exclusive national distribution deal with Lesco and has authorized several other independent regional distributors to launch its new Endorse fungicide.

"Lesco and the other leading distributors we chose are all well positioned to market Endorse," said Cleary Chemical general manager Don Breeze. "They have a high level of customer service and pay special attention to fulfilling customer needs. Both are critical for the launch of a new product."

Endorse, the first transaminar, systemic antibiotic fungicide for turf, is a consistent, broad-spectrum tool to control diseases in warm- and cool-season grasses.

New products

GreenSaver keeps it cool

Broyhill has introduced the GreenSaver fan that is designed to dry greens quickly and prevent disease and root-zone burning. The dual-speed, high-velocity fan has a temporary slencer button for constant quiet operation. The pole-mounted and portable models can be installed as far as 50 feet away from the green with maximum disturbed airflow up to 200 feet. For more information, contact 1-800-228-1003 or www.broyhill.com.

Next generation bentgrass

Lebanon Turf Products has introduced Independence creeping bentgrass that was bred for improved turf quality and overall dollar spot resistance. Independence features traffic tolerance, improved mowing qualities and brightness of color. It develops a medium dense, fine-textured turf without excessive thatch, allowing for easier topdressing. The bentgrass is an upright, aggressive variety that establishes rapidly and recovers quickly from ball marks and divots and can be used on fairways, tees and greens. Independence will be available Sept. 1. For more information, contact 1-800-233-0628 or www.lebturf.com.

Fairway Golf Cars

Continued from previous page

“But we have the product expertise in the golf market.”

In addition to its 330-pound Spirit adaptive car with hand controls, the company has introduced its Single Rider 8000 one-passenger car and its Freedom Walk power caddy.

The Single Rider 8000 weighs in at 480 pounds and looks and drives like a two-passenger golf car. Braun said the vehicle is geared toward the mildly disabled golfer, but also expects in the long-term that the single rider concept will catch on as a golf course fleet vehicle. The company has already installed a fleet of Single Riders at The Village at Lady Lake in Florida.

"Over time we think this car can speed up the game and help retain those three million people that leave the game of golf because it takes too long," said Braun.

The Freedom Walk power caddy is geared toward golfers who still enjoy walking, but don't have the stamina to carry a golf bag for 18 holes. It operates via handle controls or has a cruise control mode that allows for hands-free operation.

Since the Justice Department has yet to directly force golf courses to supply adaptive cars as part of the Americans with Disabilities Act, Braun said the market is limited to golf courses that are being proactive.

While the company has already signed exclusive contracts with the Waukesha and Milwaukee park systems, Braun said the marketing job is just beginning.

"If the car just sits there all summer unused, then people will say that they don't need the product and that will make it harder to develop the market," he said. "Our job is to promote the product and make sure that they use it."

The Spirit retails for $4,495, the Single Rider 8000 for $3,700 and the Freedom Walk for $2,495.
YGC readies certified pre-owned program

PEACHTREE CITY, Ga. — In a move to reach a lower price point with its golf cars, Yamaha Golf Car (YGC) has opened a reconditioning facility here near its headquarters in Newman to handle its new certified pre-owned vehicle program.

“If price is selling golf cars, we are telling our customers that we save them money in the price of maintenance and upkeep,” said Jon Bammann, division manager of new business development and off-fairway vehicles. “Our same car has many of the same parts that come from our ATV line so they last a long time. Our certified pre-owned program takes advantage of that longevity.”

DiMino tackles Lesco’s challenges

distribution centers to reduce transportation costs dramatically.

The sales force has also been realigned to operate more efficiently. Lesco has combined its golf and lawn care operations to better serve all the people in a region and to eliminate idle salespeople. DiMino has also separated the sales and service departments so that individual roles are better defined.

“With sales and service overlapping we had people who enjoyed selling who were restocking shelves,” said DiMino. “Now there isn’t any confusion about what they are supposed to be doing. The sales people can now concentrate on selling.”

DiMino said the changes in distribution and sales will allow for same store growth of five to six percent this year.

SHIFTING INTO REAL TIME

To better track sales from its distribution centers, Lesco has partnered with AT&T, Microsoft and IBM to improve its existing reporting system.

“Right now the stores are not in real time,” DiMino said. “Fixing that will allow us to get a jump on replanning stock, manufacturing capacity and forecasting sales growth.”

Combining these new changes with organic growth like the expansion of its independent marketer program, which now has four members, DiMino said that going forward Lesco could approach eight to ten percent growth in year-to-year same store sales.

According to DiMino, Lesco is already seeing the benefits of the changes that have been implemented to date. While they have raised prices one to two percent to increase margins, the new CEO reported modest sales growth and lower than expected first quarter losses.

“We have seen a recovery towards profitability because of our efforts to concentrate on productivity and efficiency,” said DiMino.

However, Lesco still faces several challenges, the most pressing of which is saving its under-performing Novex specialty fertilizer brand.

“It is a great product, but it is expensive to make,” admitted DiMino. “On a return on invested capital basis, it is not in the sweet spot at all. Novex by itself will probably not be a $20 to $25 million product line.”

Lesco will be mixing it with its PolyPlus fertilizer to create 10- to 60-percent blends, giving its regular fertilizer the slow-release qualities of Novex. The move is expected to offset production costs while also improving PolyPlus profits.

Lesco is also watching external issues such as golf sales, which have remained flat because resort courses are still facing low levels of play. Sales from national accounts also dropped nearly five percent during the first quarter as large accounts like American Golf are in financial trouble.

“We are going to be a little more careful about the customers we are choosing,” said DiMino. “We are not going to chase unprofitable business.”

$31 million Yamaha facility to improve productivity

Exploring other markets

The new factory, however, was not just built to handle products for the golf market. YGC has created a new off-fairway vehicles division to handle the development of new products for the company.

“We want to maintain existing customers, build our business and expand into the utility vehicle market,” said Bammann. “That’s why we have expanded into off-fairway vehicles and looked at it as a separate business. We are looking at where we can grow the business from a commercial, recreational and industrial standpoint.”

Bayer

in lost sales.

“It was to be expected that insecticides [would be divested] as Bayer already has a strong position in this segment,” said Forneck. “Bayer maintains two neonicotinoids — imidacloprid and thiacloprid.” He added that Bayer’s primary motivation in purchasing Aventis CropScience, especially in the U.S. market, was gaining access to its strong herbicide product line and biotechnology research.

Once the deal goes through, Bayer will be the second largest agrochemical manufacturer behind Syngenta AG. However, the company’s first quarter operating profit dropped 46 percent to 493 million euros ($442 million), and Bayer officials warned that 2002 was going to be a tough year.

Trion Direct Gives You a Straight Approach

Equipping your shop with the best turf equipment lift is incredibly easy. When you work with a factory direct sales consultant at Trion, you’ll quickly get all the information you need:

• Brand comparison data • Technical assistance • Referral contacts • Maintenance planning help • Lift accessory information • Real budget numbers • Shop floor plans • Custom lift option

With Trion’s factory direct sales and service, you make the right choice — we’ll take care of the rest!
requiring extensive and expensive renovations to retrofit existing facilities. New courses will need to accommodate these advancements by being lengthened, and that will certainly increase expenses. Making the game easier doesn’t necessarily equate to more people playing, either. Keeping golf affordable is more of an enticement.

Another important aspect that will be affected is the heritage of the game. Innocently enough, Bobby Jones spoke no truer words when he said of Jack Nicklaus, ‘You play a game with which I’m unfamiliar.’ How much did that have to do with technological advances? I just hate to see tradition and history take a back seat to technology when we’re dealing with any of our favorite pastimes.”

— G. Steven Hupe, general manager and director of golf operations, Marriott Golf, Stone Mountain Golf Club, Stone Mountain, Ga.

*“There are no doubt improvements in club and ball technology will result in longer courses, and longer courses will require more land and cost more. It may be that the game should be played on two levels, a super-championship course circuit where courses are 9,000 yards and players can use whatever technology has to offer; the other level being the championship circuit as played today, where club and ball technology is controlled. Think of it as the NASCAR approach.”

— Garrett Gill, president, Gill Miller Inc., Golf Course Architects, River Falls, Wis.
**EMPLOYMENT**

Golf Course Irrigation Personnel and Golf Course Shapers

**WANTED**

Willing to Travel. Fax resume to 808-930-2924.

---

**SERVICES**

**GOLF COURSE BENCHES**

Free or Purchase Programs. Recycled Plastic & Aluminum. Small family owned company. We do it right! Eagle Image, LLC. 507-348-9841.

---

**SERVICES**

**A Decision that Lasts!**

**CONCRETE CART PATHS & CURBING**

Endebrock-White Company, Inc., a worldwide company specializing in the removal of existing cart paths and the installation of concrete golf cart paths and concrete curbing. Call today for more information! 5480 Ocean Ave., Bldg. A., Suite 5D West Palm Beach, FL 33404 800-891-5030

---

**SERVICES**

**POND & LAKE LINERS**

PVC • HDPE • EPDM • RPP  Hypalon • Turf Reinforcement Erosion Control  Over 20 years of Experience Custom Fabrication Installation Services Colorado 800-524-8672 Texas 888-546-4641 California 877-578-5000 South Dakota 800-661-2201

---

**SERVICES**

**BIRD AND BAT HOUSES**

• Over 100 forms  • Free Catalog  • 800-326-2807  • www.coveside.com

---

**REAL ESTATE**

**SEEKING PROPOSALS**

The City of Fairfield is seeking proposals to manage and operate two 18-hole municipal golf courses located in the City of Fairfield, California, Paradise Valley and Ranch Solano. Fairfield is a growing city with a population of 100,500, located along Interstate 80, approximately 40 miles from San Francisco and Sacramento. Proposals are due Friday, June 28, 2002 by 5:00pm. A Pre-Proposal Conference will be held Friday May 24th at 11:00 am. For further information or to request a bid package, contact Ron Collins, (707) 428-7676.
NATIONAL GOLF ROUNDS PLAYED*

<table>
<thead>
<tr>
<th>REGION</th>
<th>MARCH</th>
<th>Y.T.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW ENGLAND (ME, NH, VT, MA, RI, CT, VT, ME)</td>
<td>134.6%</td>
<td>183.5%</td>
</tr>
<tr>
<td>MIDDLE ATLANTIC (NJ, NY, PA, DE)</td>
<td>73.5%</td>
<td>86.4%</td>
</tr>
<tr>
<td>EAST NORTH CENTRAL (MI, OH, IN, IL, WI, MN)</td>
<td>-19.0%</td>
<td>-14.3%</td>
</tr>
<tr>
<td>WEST NORTH CENTRAL (WY, SD, NE, KS, MO, AR)</td>
<td>-8.9%</td>
<td>-3.9%</td>
</tr>
<tr>
<td>SOUTH ATLANTIC (FL, GA, SC, TN, NC, VA)</td>
<td>6.2%</td>
<td>2.4%</td>
</tr>
<tr>
<td>EAST SOUTH CENTRAL (AL, MS, LA)</td>
<td>-16.7%</td>
<td>-12.4%</td>
</tr>
<tr>
<td>WEST SOUTH CENTRAL (NM, AZ)</td>
<td>-8.9%</td>
<td>4.6%</td>
</tr>
<tr>
<td>MOUNTAIN (MT, ID, WY, WY, NC, WY, OR)</td>
<td>-7.6%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>PACIFIC (WA, OR, CA, HI)</td>
<td>-8.6%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

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

Golf Course News Stock Report (5/2)

<table>
<thead>
<tr>
<th>Company/Symbol</th>
<th>Price</th>
<th>Change(%)</th>
<th>4/6/02</th>
<th>52-wk range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aventis (AVE)</td>
<td>70.35</td>
<td>-5.6</td>
<td>64.05</td>
<td>80.45</td>
</tr>
<tr>
<td>Bayer AG (BAY)</td>
<td>32.76</td>
<td>-4.5</td>
<td>28.90</td>
<td>36.00</td>
</tr>
<tr>
<td>BASF (BF)</td>
<td>42.39</td>
<td>2.9</td>
<td>27.15</td>
<td>44.24</td>
</tr>
<tr>
<td>Century Garden and Pet (CENT)</td>
<td>12.00</td>
<td>-10.1</td>
<td>5.94</td>
<td>12.99</td>
</tr>
<tr>
<td>Deere &amp; Co. (DE)</td>
<td>44.20</td>
<td>-6.4</td>
<td>33.50</td>
<td>49.98</td>
</tr>
<tr>
<td>Dow Chemical Co. (DOW)</td>
<td>31.99</td>
<td>3.0</td>
<td>23.66</td>
<td>39.67</td>
</tr>
<tr>
<td>Golf Trust of America (GTA)</td>
<td>5.35</td>
<td>-13.8</td>
<td>4.01</td>
<td>8.80</td>
</tr>
<tr>
<td>Ingersoll-Rand (IR)</td>
<td>49.96</td>
<td>3.0</td>
<td>30.40</td>
<td>54.15</td>
</tr>
<tr>
<td>Lesco Inc. (SCO)</td>
<td>11.00</td>
<td>25.7</td>
<td>6.10</td>
<td>12.74</td>
</tr>
<tr>
<td>Monsanto Co. (MGN)</td>
<td>31.23</td>
<td>-4.7</td>
<td>26.80</td>
<td>38.80</td>
</tr>
<tr>
<td>National Golf Properties (TEE)</td>
<td>7.64</td>
<td>31.0</td>
<td>4.30</td>
<td>27.70</td>
</tr>
<tr>
<td>Syngenta AG (SYT)</td>
<td>12.57</td>
<td>-2.2</td>
<td>8.50</td>
<td>13.20</td>
</tr>
<tr>
<td>Toro Co. (TTC)</td>
<td>57.99</td>
<td>-1.4</td>
<td>50.00</td>
<td>62.75</td>
</tr>
<tr>
<td>Textron Inc. (TXT)</td>
<td>49.46</td>
<td>-1.8</td>
<td>31.29</td>
<td>60.47</td>
</tr>
</tbody>
</table>

NGF definitions
- Proposed: The project is contemplated and the owner is identified.
- In planning: The project is expected to start construction within six months. Under construction: The general contract and subcontracts have been awarded. Completed: The course is open and ready for play.

When requesting information, please mention Golf Course News 6/02.
"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.”

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

"Nothing’s better than this.”

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

"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.”

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

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.”

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.”

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

Penn A-1 is distributed exclusively by TURFSEED, INC.

www.turf-seed.com
800-247-6910 in the USA

Tee-2-Green
PO Box 250
Hubbard, OR 97032 USA
800-547-0255 in U.S.
503-651-2130
FAX 503-651-2351
www.tee-2-green.com
e-mail: bentinfo@tee-2-green.com

Eco-Value: 0.04
C.V. (%): 1.2

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.

<table>
<thead>
<tr>
<th>Variety Name</th>
<th>AL1</th>
<th>AL2</th>
<th>AL3</th>
<th>CA1</th>
<th>CA2</th>
<th>CA3</th>
<th>CO1</th>
<th>CO2</th>
<th>IL1</th>
<th>IN1</th>
<th>KY1</th>
<th>ME1</th>
<th>NY1</th>
<th>TX1</th>
<th>VA1</th>
<th>WA1</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>PENN A-4</td>
<td>7.3</td>
<td>7.3</td>
<td>7.9</td>
<td>7.4</td>
<td>8.1</td>
<td>7.0</td>
<td>7.2</td>
<td>7.1</td>
<td>7.4</td>
<td>8.7</td>
<td>6.9</td>
<td>6.9</td>
<td>6.8</td>
<td>7.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PENN A-1</td>
<td>7.3</td>
<td>6.3</td>
<td>7.6</td>
<td>7.2</td>
<td>8.3</td>
<td>7.8</td>
<td>7.6</td>
<td>7.8</td>
<td>7.3</td>
<td>7.4</td>
<td>8.0</td>
<td>6.8</td>
<td>6.8</td>
<td>6.5</td>
<td>7.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PENN G-1</td>
<td>6.6</td>
<td>5.7</td>
<td>7.3</td>
<td>7.4</td>
<td>7.7</td>
<td>7.6</td>
<td>6.8</td>
<td>7.4</td>
<td>7.1</td>
<td>7.9</td>
<td>6.6</td>
<td>6.7</td>
<td>6.6</td>
<td>7.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PENN G-6</td>
<td>6.8</td>
<td>6.2</td>
<td>7.4</td>
<td>7.5</td>
<td>8.1</td>
<td>6.0</td>
<td>6.7</td>
<td>7.0</td>
<td>6.7</td>
<td>7.3</td>
<td>7.3</td>
<td>6.4</td>
<td>6.6</td>
<td>6.6</td>
<td>7.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Century</td>
<td>6.9</td>
<td>6.4</td>
<td>7.3</td>
<td>7.2</td>
<td>8.0</td>
<td>7.0</td>
<td>6.7</td>
<td>6.7</td>
<td>6.9</td>
<td>7.1</td>
<td>6.7</td>
<td>6.6</td>
<td>6.6</td>
<td>6.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-99</td>
<td>6.8</td>
<td>6.4</td>
<td>7.3</td>
<td>7.0</td>
<td>7.3</td>
<td>6.6</td>
<td>6.7</td>
<td>6.8</td>
<td>7.0</td>
<td>8.0</td>
<td>6.5</td>
<td>6.6</td>
<td>6.5</td>
<td>6.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Prix</td>
<td>6.7</td>
<td>6.4</td>
<td>7.3</td>
<td>7.2</td>
<td>6.7</td>
<td>6.8</td>
<td>6.5</td>
<td>6.8</td>
<td>7.1</td>
<td>7.3</td>
<td>6.3</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperial</td>
<td>6.7</td>
<td>6.3</td>
<td>7.2</td>
<td>7.2</td>
<td>6.4</td>
<td>6.5</td>
<td>6.5</td>
<td>6.5</td>
<td>6.3</td>
<td>6.2</td>
<td>6.5</td>
<td>6.5</td>
<td>6.6</td>
<td>6.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backcross</td>
<td>6.7</td>
<td>6.6</td>
<td>7.4</td>
<td>7.3</td>
<td>7.4</td>
<td>6.7</td>
<td>6.8</td>
<td>7.2</td>
<td>7.1</td>
<td>6.5</td>
<td>6.3</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BR-1119</td>
<td>6.5</td>
<td>6.3</td>
<td>7.2</td>
<td>7.2</td>
<td>6.4</td>
<td>6.5</td>
<td>6.5</td>
<td>6.5</td>
<td>6.3</td>
<td>6.2</td>
<td>6.4</td>
<td>6.4</td>
<td>6.4</td>
<td>6.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contender</td>
<td>6.6</td>
<td>5.8</td>
<td>7.0</td>
<td>7.0</td>
<td>6.9</td>
<td>6.5</td>
<td>6.6</td>
<td>6.7</td>
<td>6.4</td>
<td>6.5</td>
<td>6.5</td>
<td>6.4</td>
<td>6.4</td>
<td>6.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providence</td>
<td>6.7</td>
<td>6.6</td>
<td>7.3</td>
<td>7.2</td>
<td>7.0</td>
<td>6.7</td>
<td>6.8</td>
<td>6.5</td>
<td>6.6</td>
<td>6.5</td>
<td>6.6</td>
<td>6.5</td>
<td>6.6</td>
<td>6.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cato</td>
<td>6.6</td>
<td>5.9</td>
<td>7.1</td>
<td>7.0</td>
<td>7.2</td>
<td>6.6</td>
<td>6.5</td>
<td>6.8</td>
<td>6.7</td>
<td>6.8</td>
<td>6.7</td>
<td>6.5</td>
<td>6.6</td>
<td>6.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viper</td>
<td>6.7</td>
<td>6.6</td>
<td>7.1</td>
<td>7.1</td>
<td>7.3</td>
<td>6.4</td>
<td>6.3</td>
<td>6.4</td>
<td>6.5</td>
<td>6.4</td>
<td>6.5</td>
<td>6.4</td>
<td>6.4</td>
<td>6.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trailblazer</td>
<td>6.7</td>
<td>6.6</td>
<td>7.2</td>
<td>7.1</td>
<td>6.5</td>
<td>6.5</td>
<td>6.4</td>
<td>6.4</td>
<td>6.5</td>
<td>6.4</td>
<td>6.5</td>
<td>6.4</td>
<td>6.5</td>
<td>6.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patriot</td>
<td>5.9</td>
<td>5.5</td>
<td>6.5</td>
<td>6.3</td>
<td>6.4</td>
<td>5.8</td>
<td>5.3</td>
<td>6.3</td>
<td>5.5</td>
<td>5.7</td>
<td>5.1</td>
<td>4.8</td>
<td>5.3</td>
<td>5.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Putter</td>
<td>5.9</td>
<td>6.1</td>
<td>7.1</td>
<td>6.4</td>
<td>5.1</td>
<td>5.4</td>
<td>6.3</td>
<td>6.3</td>
<td>6.6</td>
<td>6.5</td>
<td>6.4</td>
<td>6.4</td>
<td>6.4</td>
<td>6.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LSD Value: 0.4
C.V. (%): 1.2

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.

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