New wetlands regs could stifle development

By Mark Leslie

WASHINGTON, D.C. — The U.S. Army Corps of Engineers is implementing a new cadre of wetlands regulations in early 2000 that is expected to impact a far greater number of residential and commercial developments, including golf courses.

Public comment on the proposed Nationwide Permits (NWPs) expires Oct. 6, making the way for the new rules which affect jurisdictional waters of the United States—wetlands, streams, lakes, etc.

Although the new NWPs have not been officially confirmed, experts in the field anticipate few changes before the

Continued on page 32

Assistants often underappreciated

By Peter Blais

While head superintendents are seeking increased recognition and money for themselves, they are also encouraging course owners and members to upgrade the salaries and benefits of their assistants.

Nationally, the mean salary paid superintendents is $53,205, almost double the $27,981 average salary of assistants, according to 1998 figures provided by the Golf Course Superintendents Association of America (GCSAA).

Why pay assistants more?

Continued on page 19

Machine takes overseeding to next level

By A. Overbeck

JACKSONVILLE, Fla. — Turf Solutions has developed the Dry Sprayer, a machine using new overseeding technology that dramatically increases the speed, accuracy and germination time over standard overseeding techniques. Adapting air-blast technology commonly found in agricultural equipment, the Dry Sprayer blows seed directly into the turf canopy.

"We have modified this ag-based small crop machine into one suitable for
“If a new course hopes to host a major tournament, it’ll have to plant one of the great new bents. Penn A-4 is the right choice for Tiffany Greens and our changeable Kansas City climate.”

Tiffany Greens was destined to be first class all the way—from its perfect location and Robert Trent Jones II design to the choice of Penn A-4 creeping bentgrass for greens. Now that word is out we have the truest, most consistent greens in the area, golfers flock to this semi-private course. We mowed the greens 10 days after seeding, and took the height down to 0.125” in a matter of weeks. Penn A-4 established quickly, and maintains deep roots year-round. Since we opened the course in April 1999, green speed is a consistent 9.5 with no stress during high heat index days.

Penn A-4 doesn’t require any extraordinary maintenance procedures. Anyone who wants smooth, fast greens has to do the same amount of maintenance. I verticut and topdress twice a month and spoon-feed fertilizer.

My uncle Junior was a superintendent, so I grew up on a golf course. I worked for him 8 years, and have been a superintendent myself for another 19 years. He taught me that greens were like the motor of a car—the most important part—and when the motor was good the car was good. The motor’s great here at Tiffany Greens. To host a PGA Senior Tour event in our first year is an honor, a privilege, and a compliment.
U.S. golfer spending tops $30 billion mark

Jupiter, Fla.—The National Golf Foundation has released its golfer spending report for 1998. Golf Consumer Spending in the United States shows that total spending on playing fees (cart, green, dues), practice range fees, golf equipment, golf apparel, food and beverage at golf facilities, and miscellaneous items such as golfer "gifts" was just over $30 billion in 1998.

A similar study was conducted by the NGF in 1994. While not all of the data is comparable between the two studies, it can be noted that playing fees increased from $6.9 billion in 1994 to $10.7 billion in 1998, a compounded annual growth rate of almost 12 percent.

"Not all of this increase is due to more products being sold or more rounds being played," said NGF Research Manager Jim Kass. "According to our recently released report, A Strategic Perspective on the Future of Golf, recent golfer spending increases are due primarily to inflation, and real increases in the cost of equipment and playing a round of golf."

Total fee spending (playing fees plus all other fees) was again the number-one category in 1998, capturing over 60 percent of all golf-related expenditures. Golf clubs was the next highest category (12 percent), followed by food and beverage (10 percent) and apparel (8 percent).

On average, each of the 24.6 million golfers aged 18 and older in the United States spent $1,212 on golf-related products and services in 1998. Specifically, they spend an average of $751 on fees, $133 on golf clubs, $124 on food and beverage and $92 on apparel. The average amount spent by all golfers, when adding junior golfers to the mix (2.1 million kids aged 12 to 17), dropped slightly to $1,152 annually, emphasizing the buying influence of the junior market.

Women continued to show their impact on the golf economy. In 1998, they spent an average of $1,086 each, with men spending $1,173. The 5.4 million

Continued on page 6

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Sweaty palms?
Dry Throat?

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Extensive renovations planned for Tampa’s Innisbrook

TAMPA BAY, Fla.— Tampa Bay’s Westin Innisbrook Resort will make extensive renovations to its Copperhead Golf Course, which is home to the 1999 JC Penney Classic and a newly announced PGA Tour event to be held Oct. 16-22, 2000.

The par-71 course will reopen Sept. 21 after the refurbishment of all 18 greens, bunker renovations and tee-area extensions. Upon completion, the course will increase in length from 7,087 yards to over 7,200 yards.

Jay Overton, host professional and facility manager for Troon Golf at The Westin Innisbrook Resort, commented that completing the renovations in time for the 1999 JC Penney Classic will “show how effective these improvements have been in advance of next year’s PGA Tour event.” He also said the 18th hole will be lengthened by over 25 yards, the green-side bunker complex reconstructed and green recontoured and expanded to accept shots from longer irons.

Haskell to design three military projects

JACKSONVILLE, Fla.— The Haskell Co. has been selected by the United States Army Community & Family Support Center (USACFSC) to provide design-build services for three golf courses. The USACFSC is a Department of Defense non-appropriated fund entity, which manages major construction projects for Morale, Welfare and Recreation (MWR) activities on military bases worldwide.

The projects include an 18-hole renovation at Parris Island, the U.S. Marine Corps training base in South Carolina, and two nine-hole additions to courses at Fort Gordon in Augusta, Ga., and Fort Lee in Hopewell, Va. The projects are scheduled for completion in late summer 2000.

RYAN GOL! SIGN' ON FOR FLORIDA TRAC!

GRANDC, Fla.— Ryan Golf of Deerfield Beach, Fla., has been awarded the site development and golf course construction contracts for Stoneybrook West. This is a new golf course and community to be built in Orlando by US Home Corp. The 18-hole championship course was designed by Arthur Hills and will be open for play winter 2000.
The NGCOA has announced that Meadowbrook Golf will join the Smart Buy Network, the electronic commerce marketplace for golf course owners, powered by Consolidated Commerce. Meadowbrook, which provides management or maintenance services to 60 golf courses, will join the 2,400 other NGCOA courses already able to perform electronic procurement, order, payment and logistics consolidation with industry suppliers.

"Enabling our organization for electronic commerce is a very strategic step for us," said Bill Stein, president of Meadowbrook Golf. "The Smart Buy platform will lower our cost of purchasing while at the same time make it easier for our courses to purchase product, take advantage of deals, and maximize rebates. "Another major factor in our decision was that the Smart Buy Network is up and running today," Stein continued. "We considered many alternatives, from building it ourselves, to waiting for software vendors to Web-enable their products. Given how fast the Internet is transforming industries like ours, we can't afford to wait for someone to build it."

The Smart Buy Network, launched in March 1999 by NGCOA and Consolidated Commerce, is a business-to-business electronic marketplace that enables manufacturers and courses to conduct business more efficiently. The Smart Buy program has approximately 25 suppliers, such as Yamaha, John Deere, Solo Cups, and Ball-O-Matic, as well as 2,400 courses enabled for electronic commerce. In addition to helping courses purchase more efficiently, the Smart Buy Network also supports highly granular pricing structures, option-based configuration, and enables suppliers to post price changes, promotions and other announcements for instantaneous communication to all buyers.

**Va. board OKs golf community**

**PRINCE WILLIAM COUNTY, Va.** — A 2,073-acre golf course community near Haymarket has been approved by the Prince William Board of County Supervisors.

The board approved zoning changes to the design of Dominion Golf and Country Club, which includes an 18-hole layout, 2,800 homes and town houses, swimming pools and tennis courts, and 250,000 square feet of office and retail space. The project is on the site where Walt Disney once proposed building a historical theme park.

The developer is Toll Brothers Inc., which purchased the property last year. Plans call for the course to eventually expand to 27 holes.

**Georgia investors plan development**

**AUGUSTA, Ga.** — Euchee Creek Investors Inc. is planning to build the Bartram Trail Club, which would include a golf course and 750 homes.

Tommy Blanchard, president of Blanchard & Calhoun Real Estate, is a member of the investment group.

Designs call for a clubhouse, professional and retail businesses and room for institutions - a church, day care and an assisted living facility.

**UNITED MOVES**

**NEW YORK** — United Golf Group has relocated its office. The new address is 37 West 57th Street, 12th Floor, New York, N.Y. 10019; telephone 212-317-0300; facsimile 212-371-4209.
Canadian juniors gain support

OAKVILLE, Ontario—Kelsey's Restaurants and ClubLink Corp. have climbed on board for 1999, further solidifying Future Links, presented by Mackenzie Financial Corp., Canada’s national junior golf development program.

“Corporate support plays a vital role towards improving Future Links and making golf affordable and accessible to kids,” said Paul MacDonald, director of membership development at the Royal Canadian Golf Association. “The program continues to expand each year and is expected to introduce nearly 25,000 new golfers to the game in 1999.”

In the first three years of the program, more than 30,000 youths have participated in Future Links activities nationwide.

Kelsey’s Restaurants, as an official supplier, is contributing to the financial development of Future Links. The restaurant chain has 76 restaurants across Canada and the United States.

Troon’s San Diego layout on schedule for Nov. opening

SAN DIEGO — Construction of Maderas Country Club is on time for a projected mid-November opening.

Designed by Johnny Miller and Robert Muir Graves, Maderas is located in Poway just north of San Diego. The 18-hole course lies within the new real-estate development, The Heritage Estates.

Commented Sunroad Enterprises Vice President Art Noerhen, the developer: “The course already has 16 of its putting greens seeded and 13 of its fairways and tees fully grassed. Plus the full-length driving range and short-game practice facility are already completely grown-in.” Maderas CC is managed by Troon Golf.

NGF report

Continued from page 3

avid golfers in the United States (25-plus rounds per year representing only 21 percent of the total golfer population) maintained their “most favored” status by spending just over $18 billion (60 percent of total spending), or an average of $3,329 each. Moderate golfers (8-24 rounds) dropped just below the average by spending $944 and Occasional golfers (1-7 rounds annually) spend $375 each.

New to the report this year is spending on individual golf club and apparel categories. For example, the average golfer who purchased equipment in 1998 spent $426. “Driver buyers” spent $164 and “fairway wood” buyers spend $143. “Iron buyers” spend the most at $552 each, with wedge and putter buyers spending $73 and $58, respectively.

And it appears that non-green-grass retail stores continue to make inroads, with strong market shares in most categories. On-course green-grass shops hold the top position in only one major product category, that being golf gloves, with 25 percent of all purchases.

Off-course golf-only specialty stores hold the lead, or are tied for the lead, as the outlet of choice for five major product categories: golf shoes (26 percent total market share), golf bags (23 percent), drivers (25 percent), fairway woods (27 percent) and iron sets (27 percent).

Golf balls are purchased primarily at discount shops (30 percent market share) and apparel is purchased primarily at department stores.

Copies of 1998 Golf Consumer Spending in the United States can be ordered by calling the NGF’s Information Services Department at 800-733-6006. The publication is $115 for NGF members and $150 for non-members, plus shipping and handling.

Precision performance.
Ore. resort course unveils three new tee complexes

WELCHES, Ore. — The Resort at The Mountain has officially opened three tees, built to create a balance between a challenging golf hole and respect for the natural environment. These tees are located on the 7th hole of the Thistle Nine, in a beautiful wetland area that, until the floods of 1996, was a large spring-fed pond.

With the guidance of the US Forest Service and Forest Service contractors, the tee boxes have been constructed from logs brought down by the floods/landslide of 1996. The tee surface is constructed of a made material. This process has and will continue to allow for minimal effect to the natural habitat, while providing an interesting new challenge for the golfer.

“We hope that golfers will enjoy the changes to No. 7 Thistle, but we also hope to impact people with the fact that it is possible to successfully create a partnership between great golf and Mother Nature,” said golf course superintendent and project supervisor Tony Lasher.

These new tees are part of The Resort’s five-year golf course remodel plan, which began in 1997. The plan includes creating four tee boxes for every hole, and is designed to make the Three Nines more versatile and enjoyable for golfers of all abilities.

Arizona facility finds new funding partner

SCOTTSDALE, Ariz.—Scottsdale’s Grayhawk Golf Club has a new financial partner. Pacific Life, a leading financial institution, has purchased a majority interest in the club from international financier Sandy Chau. The club is now owned through a partnership between Pacific Life and Scottsdale-based Grayhawk Development.

The change in partners will have little impact on day-to-day club operations. The club continues in the hands of Tryhus and Del Cochran, Grayhawk’s captain of the club.

Opened in 1994, Grayhawk is a 36-hole, daily-fee facility located within Scottsdale’s 1,600-acre Grayhawk master-planned community.

Tenn. community considering new golf development

FAIRVIEW, Tenn. —The Planning Commission is considering whether to approve rezoning for the city’s first signature golf course and some expensive homes.

Tennessee Development Partners is seeking the rezoning in order to build half-acre cluster lots, the golf course and a clubhouse on 608 acres.

Peter Jacobson would design the proposed $9 million course. If the planning commission approves the rezoning request, Houston-based Golf Services Group plans to start building the public course this fall.

CORRECTION

KIAWAH ISLAND, S.C. — In a feature story on Ocean Course superintendent George Frye in September the reporter misidentified the architect of Kiawah Island Resort’s Turtle Point. Design. Jack Nicklaus designed Turtle Point. Tom Fazio designed Kiawah’s Osprey Point, while Pete Dye designed The Ocean Course, Gary Player did Cougar Point and Clyde Johnston was the architect for Oak Point.

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In a world separated by millimeters Jacobsen greens mowers are the only choice. The most comprehensive fleet in the industry is also the most recognized for delivering a precision-perfect cut with every pass. Our legendary reels feature exclusive metal alloys and an uncompromising machining process. Flawless bedknife-to-reel tolerances, optimum clipping rates, exact cutting heights, superior ground speed control and superb balance come together in perfect order to deliver consistent precision performance. Unequaled in design. Unparalleled on the green. That’s why more superintendents count on Jacobsen greens mowers for their most critical maneuvers. Shouldn’t you? Call 1-888-922-TURF or visit www.ttcsptextron.com for your nearest dealer.

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GOLF COURSE NEWS
Medinah baked, pros half-baked

It was so hot on Aug. 13 — the Friday of the PGA Championship at Medinah (Ill.) Country Club No. 3 course — that the table that warm-ish West Palm Beach winter evening was my nephew (an aspiring young assistant pro who worked summers at one of Friel's courses) and an older gentleman, whose name escapes me, but who apparently enjoyed considerable success on the New England golf scene some 50 years earlier.

I knew Mister Friel was battling cancer, but he was still an energetic and delightful dinner companion. He was a man who owned a dozen courses, had played in the PGA Championship, and won a number of professional tournaments throughout New England. By all accounts, he was still shooting several strokes under his age.

Yet as I directed questions at him, giving him every opportunity to pat himself on the back regarding his golfing and entrepreneurial accomplishments, he wistfully reflected the attention toward the older gentleman across the table. "Winter evening been him play," Friel said on several occasions. That told me a lot about the man. My nephew and I delighted in the older gentleman's company; in their stories, in their camaraderie. By the end of the evening I found myself calling him "Mister Friel," just as my nephew had been doing from the outset; just as the people in the pro shop at White Mountain Golf Club in Ashland, N.H., called him on the second occasion.

Mister Friel and I met; just as Southregan Woods superintendent Jeff Brown (see story on next page) continued to refer to him during our phone interviews.

Mister Friel attracted the kind of respect and admiration from those around him that just a few seem to draw these days — Mister Jones, Mister Williams, Mister Jemsek, Mister Wadsworth. Those who have had the pleasure of meeting these gentlemen are the richer for it.

The 5.4 million avid golfers (25-plus rounds per year) spent an average $3,339 on their chosen sport in 1998, while golfers as a whole spent $30 billion, according to National Golf Foundation figures (see story page 3).

The average superintendent earns $53,205 annually (see story page 1). Wykagyl Golf Club Director of Golf Steven Rinzetti said he doesn't know a superintendent in the Metropolitan New York area making under $60,000.

Pebble Beach Co. recently sold for more than $300 million and green fees at Pebble Beach Golf Links are running $325 a round.

Kind of hard to believe those who claim the "golf industry is in trouble, the bubble has burst, the boom is over, etc., etc., etc." No, they probably won't be the last of all from some of the Tour players.

I have two questions for the complainers:

1) If there's no excuse for not having perfect greens, what is your excuse for not shooting a perfect round?

2) Because you drive a car, do you think of yourself as an automotive engineer?

"And those are this month's new environmental regulations. Any questions?"

We're better for knowing them

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"And those are this month's new environmental regulations. Any questions?"
We built it heavy-duty. 
But not by the rules.
The ProGator features a walk-through operator platform. No controls get in the way of an operator or passenger getting on or off.

The ProGator has the widest stance of any HDUV, giving it excellent stability.

**Durability and**

Photos taken at Tournament Players Club at Deere Run, Moline, Illinois
With the new John Deere ProGator utility vehicle, heavy-duty just got redefined and redesigned. No other vehicle in this category combines the strength, reliability, and flexibility of the ProGator.

You can see the difference just by walking through the operator station. It’s wide-open, making getting on and off easy. With comfortable, high-back seats. And easy to reach controls and steering.

Driving is a different feel as well. A five-speed, synchro-mesh transmission allows for seamless shifting—no more overlapping gears. And the hydrostatic steering gives you precision control and a tight turning radius of only 33 inches.

If you have a ton to haul, then this is your vehicle. The ProGator UV weighs in with a hefty 2,650 load capacity. The cargo box is solid steel, with a patterned plate floor. The box is longer and, combined with a hydraulic power lift, lets you dump loads cleanly and accurately.

The front and rear suspension of the ProGator vehicle features dual leaf springs with shocks instead of coils, taking the bumps and jolts out of gravel roads and unforeseen mounds.

Strength also comes in the form of a one-piece axle supporting the rear wheels, allowing for more capacity and providing more reliability.

You want user friendly? You got it. A versatile, 3-pin system lets you take the cargo box on or off without tools, in minutes. And with only three grease zerk, you save time as well.

Heavy-duty for any duty. The ProGator has the strength and versatility you need, and the performance no other vehicle can top. For the name of your nearest distributor, call 1-800-537-8233.

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Optional ProGator Cab keeps you going in comfort all year round. Durable, with excellent visibility. Doors are ventilated for better air flow and a heater/defroster kit is also available.

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Top dress with ease: the ProGator Top Dresser features a seamless conveyor belt and a capacity of 19 cubic feet.

from John Deere

The ProGator HD200 Sprayer has a 200-gallon tank and a rugged, multi-purpose 18-foot boom. The HD200 has a heavy-duty frame, with a personal wash tank built-in.
<table>
<thead>
<tr>
<th>Specification</th>
<th>2020</th>
<th>2030</th>
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<tbody>
<tr>
<td><strong>Engine</strong></td>
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<td>Manufacturer/Model</td>
<td>Yanmar 3TG72</td>
<td>Yanmar 3TNE74</td>
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<tr>
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<td>26 hp (19.4 kW)</td>
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<td>Automatic, on-demand</td>
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<td><strong>Ground Clearance (unloaded)</strong></td>
<td>6.6 in. (168 mm)</td>
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<td>31.1 in. (790 mm)</td>
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<tr>
<td>Wheelbase</td>
<td>66 in. (1676 mm)</td>
<td>66 in. (1676 mm)</td>
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<tr>
<td>Wheel tread, front</td>
<td>48.5 in. (1232 mm)</td>
<td>48.5 in. (1232 mm)</td>
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<td>62.4 in. (1586 mm)</td>
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<td>129.3 in. (3285 mm)</td>
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<td>Turning Circle Clearance</td>
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<td>Inside diameter - 2wd.</td>
<td>17 in. (432 mm) radius</td>
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<tr>
<td>Cargo Box Weight - actual</td>
<td>320 lb. (145 kg)</td>
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<tr>
<td>Cargo Box Capacity (calculated)</td>
<td>1,930 lb. (876 kg)</td>
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<td>Cargo Box Struck Capacity (w/ dry sand) 100 lb./sq. ft.</td>
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<td>1,924 lb. (873 kg)</td>
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<td>8 U.S. gal. (30.3 L)</td>
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<td>23&quot; x 10.50-12 (4 PR)</td>
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<td>1,340 lb. (608 kg)</td>
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<td>Rear standard</td>
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<td>Dual leaf springs with shocks</td>
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<tr>
<td>Rear</td>
<td>Dual leaf springs with shocks</td>
<td>Dual leaf springs with shocks</td>
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<tr>
<td><strong>Brakes</strong></td>
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<td>4-wheel hydraulic drum</td>
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<td><strong>Battery</strong></td>
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<td>55-amp</td>
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<td>C.A.R.B., ANSI B56.8</td>
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Measure the new ProGator utility vehicle for yourself. Then see your local John Deere golf and turf distributor.
Phillip Friel Jr.

Prominent New England course owner Friel dies
NASHUA, N.H. — Phillip J. Friel Jr., 83, a former golf pro who owned and operated 13 golf courses in Massachusetts and New Hampshire, died here Aug. 30.

Friel was born in Boston and served in the U.S. Army during World War II before becoming the pro at Woburn (Mass.) Country Club (CC). He later worked as head pro at Bellevue Country Club in Melrose, Mass., and Nashua (N.H.) Country Club.

He enjoyed considerable success as a golfer, competing in seven PGA championships and winning the New England PGA as well as the Maine and New Hampshire Opens.

But he had his greatest impact on the New England golf scene as a course developer, owner and operator. While the head pro at Nashua, he designed and built Greenmeadow Golf Club in Hudson, N.H., in 1960.

He and his sons — Phillip, Thomas and David — went on to design, build and acquire numerous courses throughout New England.

In addition to Greenmeadow, Friel Golf Management’s Massachusetts operations include Beverly Golf and Tennis, Cape Cod CC in Hyannis and Hampden CC. New Hampshire courses include CC of New Hampshire in North Sutton, Overlook Golf Club (GC) in Hollis, Pheasant Ridge GC in Gilford, Souhegan Woods GC in Amherst, Waumbek GC in Jefferson, Whip-Poor-Will GC in Hudson, White Mountain GC in Ashland, and World Cup Golf Center in Hudson; and Foster (R.L.) CC.

“He was a very thorough person in terms of what he saw and wanted done on a golf course,” said Chuck Welch, head superintendent at Souhegan Woods GC. “Mr. Friel was one of a group of five teenaged boys — Brown, his brother Mickey, Peter Drown, Bill Andrews and Greg Misolidakis — who were introduced to golf at Friel’s Green Meadow Country Club in Amherst, N.H., a quarter of a century ago. “He grew up playing golf together at Mr. Friel’s course and ended up in the golf business mainly because of him,” Brown said.

By JEFFREY BROWN

It’s difficult to put 25 years of friendship and golf experiences into a few words. My first encounter with Mr. Friel was at age 12, when he showed me the way off the course for spending too much time hunting for lost balls in the woods. I think Peter and Mickey had similar experiences. Mr. Friel kicked us off so many times, he finally gave up and offered us all jobs.

Billy and Greg grew up on the other side of town at a semi-private course called Whip-Poor-Will, which Mr. Friel later bought. Billy, who eventually became a professional golfer, began taking golf lessons from Mr. Friel at age 15. According to Billy, “My father knew I loved golf and wanted to be a golf pro. So he talked Mr. Friel into giving me lessons.”

Greg met Mr. Frielke the first time at a golf clinic held at Green Meadow. We were laughing at how many times Mister came up to us on the driving range, grabbed our left hands and turned them over. After every session he would chuckle and say “Don’t you write this stuff down?”

In the mid-1970s, the five of us played

Left to right, Norm Pelletier, Phil Friel, Pete Drown and Jeff Brown.

Friel remembered by those he helped

Editor’s note: Jeffrey Brown is superintendent at Souhegan Woods Golf Course in Amherst, N.H. Golf Course News asked him to write this article shortly after the recent death (see obituary at left) of Phil Friel. Brown was one of a group of five teenaged boys — Brown, his brother Mickey, Peter Drown, Bill Andrews and Greg Misolidakis — who were introduced to the game at Friel’s Green Meadow Country Club in Amherst, N.H., a quarter of a century ago. “We grew up playing golf together at Mr. Friel’s course and ended up in the golf business mainly because of him,” Brown said.

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Flexible
Friends remember Friel

Continued from page 9

on the same high school golf team. Mr. Friel would always make himself available to us while we practiced after school. Greg recalled how, "Mr. Friel would see me at the range. He'd come over and ask 'How's it going?' Then always 'Let me see you hit one.' Those were some of the best days of our lives."

We were all very competitive and liked beating one another. We still do today. We won the Tri-City Tournament one year, with Peter making a key putt on the last hole to give us the title by a single stroke. Mr. Friel can take some credit for that putt.

By the late 1970s we were all working for Mr. Friel at Green Meadow. His nephew, Dennis Friel, was the superintendent. Dennis taught us the techniques he and his uncle had perfected for growing grass. We can all still remember Mr. Friel riding his mini bike around while checking out the course.

By the early 1980s our careers had begun to take shape. Peter became superintendent at Green Meadow. I was in college and working as Peter’s assistant. Mickey was contemplating turf school.

Greg was the assistant pro at the Whip. Billy had graduated from college and was working as the assistant superintendent at Wentworth-by-the-Sea in Portsmouth while contemplating turning pro. The following year, Mickey, Greg and I enrolled at the University of Massachusetts’ turf school.

After graduation, Greg returned to Green Meadow as Peter’s assistant. Mickey came to Texas to work for me at Austin Country Club (ACC), where we were both fortunate to meet and befriend the late Harvey Penick, the longtime pro who coached Tom Kite and Ben Crenshaw and wrote "The Little Red Book."

The turf experience and knowledge of the game we gained from Mr. Friel while at Green Meadow helped us prepare ACC for the Harvey Penick Invitational.

While Mickey and I were in Texas, and Peter and Greg were running Green Meadow, Billy was working at becoming a golf pro.

"It was Mr. Friel," Billy recalled, "who called the golf director at John D. MacArthur Golf Club [in West Palm Beach, Fla.] and secured my golf pro apprenticeship."

I returned to New Hampshire in the mid-1980s and began work...
On the Ridge nine, both the 4th and 9th holes play dramatically downhill from the name-sake natural ridge that cuts through the property. At just 360 yards, the 4th dictates that the tee shot — likely played with something less than a driver — be placed right of a long bunker that guards the left side of the fairway and short of another bunker in the fairway some 240 yards off the tee.

From there, a short-iron approach is played to a green heavily guarded by water and sand.

The same lake that wraps part of the 4th green also protects the putting surface at No. 9. This time, from tees perched high on the ridge, a drive must stay left of the waste bunker to set up a good approach angle at this 411-yard, par-4 hole.

“Our design at Aliso Viejo places the emphasis on precision rather than power,” said the younger Nicklaus. “With a variety of tee locations and the proper weaving in of the bunkers, water and rough, you can allow the golfer the choice of different landing areas and shot strategies. You always want a course that is challenging, but still fair. The Aliso Viejo Course does this.”

“My father and I have had the opportunity to co-design numerous projects,” young Jack said. “Each time we’re asked to collaborate on a project it is both a treat for me and a benefit for the client.

“When we join our design minds we are able to feed off each other’s likes and dislikes, strengths and subtleties, to create the best possible golfing experience.”

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**Letter on interns**

Continued from page 9 worked at other high-caliber clubs, that they did not get the time spent with them or a diversity of job duties.

We limit the number of interns to one or two for this reason. Don't get me wrong as it would be great to have a half dozen or more employees who are dedicated to the profession and have some experience.

But it is not fair to the students who are interning to learn more. It is hard for a superintendent to spend time with a couple of interns in addition to the training we do daily with our key people, i.e. assistants, equipment manager and spray and irrigation technicians.

My message here is the same as Terry's. When looking for an internship or changing jobs to enhance your career, interview the superintendent so you get the most out of what you are striving to achieve.

And don't forget the small unknown golf courses that are out there because there are truly some diamonds in the rough.

Sincerely,

Stephen Maas
The Valley Club
Hailey, Idaho
Another gem added to Prince Edward Island's golfing crown

By PETER BLAIS

GEORGETOWN, Prince Edward Island, Canada — Dundarave Golf Course, a new Hurdzan-Fry design that opened this summer in eastern PEI's Brudenell Provincial Park, represents another step in the island province's journey toward becoming a major Atlantic Canada golf destination.

The 18-hole, 7,284-yard track runs along the Brudenell River adjacent to the park's existing Brudenell River Golf Course. It boasts bentgrass tees, greens and fairways and is dotted with more than 120 red-sand bunkers. The peak-season $60 green fee matches that of nearby Crowbush Cove, a Thomas McBroom design voted Canada's best new course by many golf publications when it first opened several years ago.

"PEI is definitely becoming a golf destination," said Jeff Ready, assistant manager of Golf Links PEI, the government agency that runs four provincial courses and promotes golf on the island. "With Dundarave, we have three world-class courses within a half hour of each other. Our other course [Mill River] is only an hour and 20 minutes from Charlottetown."

Dundarave was privately developed, but is operated by Golf Links PEI, which pays the developers a yearly lease fee on the property. After 10 years, the government has the option to purchase the property at fair market value or continue to lease it.

"It was a good arrangement for both groups," Ready said. "We [Golf Links PEI] got a world-class golf course and the developers have an investment to look after them."

A group of local golfers/business people had discussed developing a major golf resort on PEI for several years. Charlottetown attorney Eugene Rossiter was among them.

The group, Rossiter said, wrote a business plan that identified a need for a 36-hole resort with a golf academy and accompanying amenities.

"We looked at various sites and Brudenell was an obvious fit," Rossiter said. "It had one of the top 50 courses in Canada already there [Brudenell River GC]. It had 1,800 acres available for development. It had a first-class hotel, RV park and 100 full-service camp sites. It was on a river with beautiful views. Horseback riding and a theater were available. It just had everything one could want."

The group consulted with Columbus, Ohio-based Hurdzan-Fry Design and had Michael Hurdzan walk the site. The group approached the province with a public/private-partnership proposal in which the government would donate the land and the private group would develop, construct and put together a turnkey operation for the government to take over with the yearly lease arrangement.

"The private sector has the capacity to do things the government can't," Rossiter said. "We could build it on an expeditious basis; make decisions quicker; and bring our resources to bear to get the job done in a timely yet quality manner. We were all of the firm belief that there was nothing the private sector couldn't do quicker, cheaper and better than government... It wasn't built without glitches. There were some disagreements between us and the government. But we're very satisfied with the product."

One of Dundarave's most striking characteristics is the dark red sand bunkers. High concentrations of iron give PEI sands and soils their dark red hue. Most of the island's courses, including the original layout at Brudenell, have opted for imported white sand in the bunkers. But Hurdzan chose the native red sands, an attractive feature that fits the landscape.

"That was sort of controversial," said Hurdzan designer Jason Straka, "because it's a little lower quality of sand. But the owner wanted to use native red sand and buy it from local vendors rather than truck it in from Ohio."

Added Rossiter: "We did everything we could locally — the sod, sand and everything else we could. It was important to us to keep the money on PEI."

Straka said Dundarave is the first course on the island with continuous cart paths and has the widest fairways and largest greens in the province.

From a design standpoint, there were some wetlands to deal with and some land ownership issues that complicated the routing, Straka said. "We had a final routing, but we had to tweak it. It ended up for the best in the long run," he said.

The land was easy to work, being either a red clay or sandy soil, Straka said.

"There were no rocks, which was nice for shaping," Straka recalled. "The only problem was when it rained, it turned into..."
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By Peter Blais

MONTREAL — Building a golf course in a single season is almost unheard of in snow-packed areas like Canada, the Northeast and Midwest United States. But Robbie Hellstrom, a former superintendent turned golf course consultant, may be changing those expectations.

The Montreal-based, 34-year-old owner of RJH Golf Course Management Services Inc. has turned the single-season trick at two recently built Canadian courses — Le Diable in Mt. Tremblant, Quebec, and Dundarave former superintendent builds courses in matter of months

Golf Course and Academy at the Brudenell River Resort on Prince Edward Island (PEI).

"Now that we've done it twice, we may have started a trend that will have to be continued," Hellstrom said.

Hellstrom's firm handles everything from course construction to golf event management. He recently coordinated the Molson's Export A Skins Game featuring John Daly, Fred Couples, David Duval and Mike Wier at Mt. Tremblant. In addition to building and maintaining the two courses at Mt. Tremblant, he was project manager at Dundarave, the new Michael Hurdzan/Dana Fry design on PEI that opened this summer. Sugarloaf Golf Club in Carrabassett Valley, Maine, also recently hired Hellstrom as course consultant.

Hellstrom started RJH Golf Course Management Services in 1996, while still working for Intrawest, a major North American ski resort operator, at

Continued on page 14

By Mark Leslie

CASCO, Maine — Superintendent Gerry White had loaded Point Sebago Golf Club with bat and bluebird houses and a purple martin hotel to fight his insect problems. So what else could be done?

Ever hear of dragonflies? As naiads (nymphs) they prey on small aquatic invertebrates, while adults dine on midges, mosquitoes and other insects. The Audubon Society Field Guide to Insects and Spiders states: "Both naiads and adults are highly beneficial predators, destroying huge numbers of mosquitoes."

Pursuing the idea planted by a golfer who observed the dragonflies naturally on his course, White set on a mission four years ago to enhance that population in the 10 ponds and various waterways of his 650-acre property. Play a round at Point Sebago today and golfers

Continued on page 17

By Terry Buchen

NAPLES, Fla. — Darren J. Davis, superintendent at the Olde Florida Golf Club, and equipment and shop manager Kim Ellis have designed and built an "aerifier dolly" to make their 3-point hitch-mounted aerifier much easier to move around the shop and make repairs, change aerifier tines, slicing blades, etc. without tying up tractor.

The frame and five-risers (two front, three rear) are made of 2- by 2-inch by 1/4-inch square tubing. The 29- by 75-inch frame is lightweight, strong and versatile. The holder or bracket that

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Digital mapping enters various course operations

By Kevin P. Corbley

Unheard of on the golf course just a few years ago, digital mapping technologies are rapidly being integrated into virtually every aspect of course operations.

First, satellite-based GPS surveying was introduced to map irrigation system components, track golf car locations, and calculate yardage from player to pin. Now, superintendents are increasingly turning to another computerized map tool — known as GIS — to manage daily operations and course facilities.

Geographic information system, or GIS, technology has proven so successful at automating land and infrastructure management functions in industries such as forestry, electric utilities and oil production that some firms are touting it as the future of golf course maintenance.

GroundLinkx LLC of Littleton, Colo., developer of the GroundLinkx GIS golf course management program, has formed a joint venture with IntraSearch Inc. of Denver, an aerial photography and digital mapping firm, to create fully integrated GIS software and digital map packages customized for individual golf courses. Package Under the charge of Rob Hellstrom, right, Dundarave Golf Club was finished in one season. See story on Dundarave on page 12.

Continued on page 18

First of 2 Parts

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Man for one season
Continued from page 13

Mt. Tremblant. He opted to leave his position as director of golf operations with a staff of 105 at Tremblant (although he remains a consultant with Intrawest) and concentrate on his consulting business in 1997. RJH co-designed and constructed Vallees des Fort Golf Course, which opened on the south shore of Montreal in 1996. In 1997, RJH was hired as project manager at Dundarave.

While with Intrawest, Hellstrom oversaw construction of Hurdzan-Fry-designed Le Diable, which he built in a single season. He was able to duplicate that feat at Dundarave, another Hurdzan-Fry effort that took 117 days to build. According to Hellstrom, Dundarave and Le Diable are the two fastest-built courses in Canada.

"I dedicated almost 100 percent of my time to Dundarave from January 1998 to July 1999," Hellstrom said. "I'm real proud of what took place there."

The speed at which Le Diable and Dundarave were built was more a matter of circumstance than any sort of grand plan, Hellstrom said. It took Intrawest almost two years, a typical construction timetable, to build its first course at Mt. Tremblant, called Le Geant. At the time, Intrawest was adding hotel rooms faster than the amenities needed to handle the additional guests, Hellstrom said. Company officials asked him if it would be possible to build Le Diable in just six months to provide an additional amenity for its guests. With basically a five-month construction window (May 1–Sept. 30), the only way to establish grass that would be ready for play the following year was to plant seed by September, while the soil was still warm enough to support growth.

"We put the logistics together and laid out a critical path," Hellstrom remembered. "We went to the chiefs of the corporation and said, 'This is how it plays out. If it rains for three days when it's not supposed to, then there goes the schedule. How comfortable do you guys feel with investing based on this sort of a plan?' They asked me how I felt about it. I said it was a risk. But we decided it was something we could do. We got a contractor who had never built a course before, backed up by the general contractor who helped us with Le Geant. Everything fell into place. We started construction May 1 and on Oct. 11 I played 11 holes with the president of Coca-Cola Canada.

"That's why I was attractive to the developers in PEI. A lot of people thought it was a fluke, that we just got lucky and couldn't do it again. We put the critical path together at Dundarave, got a general contractor who never built a course before, and I served as project manager for both the builder and developer. We got real lucky again with the weather. We seeded the last hole on the golf course by August 28 and the last holes on the academy on Sept. 17. I think this (building in a single season) will become more the standard because developers just don't want to tie up that much cash for that long without a cash flow."

In both cases, Hellstrom employed inexperienced course builders as general contractors. Was that helpful in getting the course built in a single season?

"There is a corporate thinking within the big contractors that their margins are built a certain way and if you build it in six months instead of 12, then it has to cost more," Hellstrom said. "But the ultimate question I ask is 'If I told you an inexperienced contractor had built this golf course, would you have known?' That's the important element. If someone walks on your course and says 'What the heck is this?', then you've made a mistake. In both cases, we brought in shapers experienced in the business... There are advantages to hiring an inexperienced contractor, but there are disadvantages, too. You need someone who can work 20 hours a day and be in 50 places at one time."

The key to building a course in such a short period is "that everyone understands their role," Hellstrom said. "Everyone, from the guy pushing the dirt, to the guy laying the pipe, to the guy shaping the course to the guy seeding it, understood how important it was for each guy to keep speed and keep pace with the guys in front of them."

FROM HOCKEY TO GOLF

Hellstrom never played golf
Continued on next page
Hellstrom takes Sugarloaf reins

ARRABASSET VALLEY, Maine — American Skiing Co. (ASC), operators of Sugarloaf Golf Course here, has hired Robbie Hellstrom as course consultant to ensure that course maintenance at the mountain resort is properly handled and to assist in developing long-range plans for the facility, which has been ranked the state’s top layout for the past dozen years.

Hellstrom first visited Sugarloaf last October. While pleased with its No. 1 ranking, ASC hired Hellstrom to take Sugarloaf “to the next level.”

“The course is 15, 16 years old,” Hellstrom said. “They asked me to focus on what they needed to do to improve the course and change some of the operating formats they have now. It’s a true mountain course built 15 years ago when many of today’s efficiencies of construction were still non-existent.

“Because of its environment, there are some things that have become significant challenges, such as the bunkers. In a mountain environment you get a lot of blow-out and debris, so we’re looking at a program to revitalize all the bunkers. We’re looking to asphalt all the cart paths. We did four holes this July.

“We’ll continue to work on drainage. A lot of the cross-drainage has grown in over the years... We’ll do an extensive program of redirecting those drainage areas and diverting the water... We’ll do an extensive program of reditching those drainage areas and diverting the water...

“Man for a season

Continued from previous page

up to his late teens. He was a hockey player who was good enough to be drafted by the Montreal Canadiens in 1982. “I didn’t think I would ever be good enough to play in the NHL,” Hellstrom remembered. “So I decided to go to college.”

His father hoped he would follow in his footsteps and become an engineer. But Hellstrom preferred working outdoors and got a summer job with a landscaper while he attended college at Marionopolis near Montreal. He enjoyed landscaping and earned a certificate in horticulture from Marionopolis. He received a full scholarship from the University of Helsinki in Finland, where he had lived until his family moved to Canada when he was 12. After earning a bachelor’s degree in business and an associate’s degree in agronomy at Helsinki, he went to work for a water park development company north of Montreal, where he cared for the grounds and pump stations.

While at the water park, he met former NHLer Dickie Moore who owned nearby Arundel Golf & Country Club. Moore asked Hellstrom to become his assistant superintendent. Hellstrom had yet to ever swing a golf club, but took the job working under head superintendent “Buster” Cooke.

“He (Stuart) was the most incredible person I ever met and the most influential person in my career,” Hellstrom said. He was 75 years old and looked like 50. And he could out-work any 20-year-old out there... Sharing the expertise this guy had from 35 years in the business was just phenomenal, I learned more in two years with him than I did in six years of school before that.”

A gentleman named Houssain Soudavar was impressed with Arundel and hired Hellstrom to oversee construction of a new residential golf course he was building north of Montreal named Balmoral. “I hadn’t done a full-blown course construction project to that point,” Hellstrom said. “But we ended up getting the job done on time and on schedule.”

Hellstrom stayed on as director of development once the course opened and became more involved with the other aspects of club operation as well — food and beverage, member services, pro shop.

Some officers from Intrawest played Balmoral in the summer of 1993 and approached Hellstrom later that year about helping develop golf at Mt. Tremblant. He was named to the board of directors in late 1993 and started overseeing development of Thomas McBroom-designed Le Geant. He also worked on Intrawest properties at Mt. Stratton in Vermont and Gray Wolf in Panorama, B.C.

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Adds Golf Course Superintendent Steve Taggart of Shawnee Inn and Golf Resort in Shawnee, Pennsylvania:

“It is important for us not to slow turf growth because we get a lot of play, about 300 rounds on an average day in June and July. To control summer patch on greens the past three years, we have applied Eagle three times at one-month intervals. Other fungicides can slow plants and stunt root development. We don’t see that with Eagle. It has worked well.”

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ON THE MOVE

Bear Trap Dunes hires Eric Linde

BETHANY BEACH, Del. — Bear Trap Dunes Golf Club, a new 18-hole par-72 course in Ocean View, has hired Eric M. Linde as superintendent and Houston Frey as his assistant.

A certified golf course superintendent, Linde holds a bachelor's degree in agronomy from Penn State University. He worked as superintendent for many high-end courses, including Landsdowne Resort and Conference Center, Shenandoah Valley Golf Club and Farmington Country Club. He is a founding member of the Zoysiagrass Growers Association, has been active in the Audubon Cooperative Sanctuary Program, and has spoken at various national and regional turfgrass conferences.

Frey comes to Bear Trap Dunes with a turfgrass degree from Rutgers University. His prior positions were assistant superintendent for Ocean City Golf and Yacht Club, and crew foreman for River Run Golf Club.

HENDERSON, Nev. — Lake Las Vegas Resort has hired Jeff Reid as superintendent of SouthShore Golf Course. Prior to joining Lake Las Vegas Resort, Reid worked at Spanish Trail Country Club, La Costa Resort & Spa, Carlton Oaks Country Club and Eaglecrest Country Club.

Reid is a graduate of Grossmont College, with a bachelor's degree in business administration. He also holds a golf and sports turf management degree from Cuyamaca College.

Sugarloaf hires

Continued from page 15

where it needs to go. We'll also put some subsidiary drainage on fairway areas that in a mountain environment tend to collect and hold water. We're talking about adding three golf holes to the golf academy and building a clubhouse. We're putting together a three-year master plan.

Hellstrom will also assist in the possible development of a second 18-hole layout at Sugarloaf; help construct a new 18 at ASC's nearby Sunday River resort in Bethel; undertake a capital improvement program for maintenance equipment; and develop marketing and operational plans.

Hellstrom has a bachelor's degree in agronomy and describes turf management as his "passion, even though I haven't considered myself a superintendent for many years because I haven't been doing that specific job. I've been hired by companies to assist them in all aspects from construction to grow in to setting up the operational formats to building maintenance centers and clubhouses to purchasing equipment to guest services."

Hellstrom and Sugarloaf have a verbal agreement which results in his spending three to five days a week at the northern Maine resort. "When I'm not here, I pass on instructions to my assistant [Ryan Elliott] and foremen and let them do their jobs."

Hellstrom maintains a home and his office 50 miles north of Montreal. Intrawest remains one of Hellstrom's clients, meaning he works for the two largest ski resort companies in North America. He is also consulting at Montreal's Vallee des Fort, which is building a second 18 holes.

"We don't discuss Intrawest's business with ASC or ASC's business with Intrawest," Hellstrom said. "It's not that hard to balance. Both companies know that we're a consulting firm and don't have a problem with it. They aren't as competitive in golf as they are in skiing... I feel fortunate to work for two such great companies. People recognize it as a compliment to the services we deliver that these companies would both want to have us as consultants."
And Gomphid dragonflies fly from April to September in the North but from June through October in Texas.

For the inquisitive mind wondering how the adults eat: "It is scientifically proven that they collect insects on their wings as they fly, then eat them off their wings," offered White.

Even if the dragonflies were not effective mosquito munchers, White said the public-relations value is worth it. So far, their use on the golf course has been word of mouth, but he said he is considering signs on the course informing golfers of the dragonfly project.

The machine rests on 2-inch "C" channel steel. The back three are 6 inches in length and the "C" channel is 2 by 3 inches high, so the back three have "C" channel that runs parallel to the base of the machine.

The front two brackets are 6 inches long as well, but do not run parallel to the frame. Instead they run perpendicular to the frame. It is also 2-inch "C" channel but is turned upside down and welded at the center. At both ends of these 6-inch pieces of upside-down "C" channel is another piece of "C" channel welded on to it that runs upward, also at 3 inches.

The brackets are wider in the front because the Toro 687 that rests in it is wider in the front.

The three weight trays on the back of the Toro 687 are all independent and narrow enough to use 6-inch "C" channel running parallel to the machine, Ellis explained.

The two front risers and the outside two risers on the back are 13 inches from the outside of the frame, Ellis said. The center riser (on the rear only) is 37-1/2 inches, or exactly centered in the back. These five risers are all equal height off the frame: 12 inches high to the base of the channel. The metal was painted with a primer and then Rust-oleum.

"It took Kim between three and four hours to build it," Davis said. "It cost $200 for the steel and paint and $80 for the casters, which are heavy-duty rated for 400-pound load range per wheel and were obtained from Grainger, part # 1F147. I am very pleased with Kim's usual good work that really shows that integrity and hard work pays off."
Mapping expands
Continued from page 13

"GIS has been slow to reach many industries, such as golf, for financial reasons," said David Mikesh, GroundLinkx president and founder. "Recent advances in computer and software capabilities, together with falling hardware costs, have made GIS accessible to desktop computer users. Superintendents seem to be making up for lost time. The program has already been purchased by 21 courses, including The Vintage Club in Indian Wells, Calif., Olympia Fields Country Club in Illinois, and Meadow Springs Country Club in Richland, Wash.

Earlier this year, the U.S. Golf Association contracted for systems on five courses to site manage their upcoming U.S. Open tournaments.

WHAT IS GIS?
A GIS is sometimes referred to as a "smart map" because it connects database information with features on a computerized map display. In the GroundLinkx GIS, for example, a course map appears on screen, allowing the superintendent to point and click on any course feature — such as a green, fairway or tree — and retrieve information about it.

Stored in an underlying database, this information pops up on screen in dialogue boxes. Hole number, perimeter length and area measurement are provided for two-dimensional features, while item-specific details such as species or pruning schedule are offered for trees or shrubs. Basic data is either entered during development or afterwards by the superintendent. The system calculates other information on the fly.

GroundLinkx has programmed numerous mathematical calculations into the software so a superintendent can click on a defined feature like a green or outline a portion of one to perform any of several useful functions. The system instantly calculates square footage, measures precise distances, computes sand volumes for bunkers, determines product application rates, shows how many tournament hospitality tents will fit in an assigned area and performs many other golf-specific functions.

"The programming gives 'geographic intelligence' to the GIS, allowing superintendents, course agronomists and tournament directors to work smarter, not longer," said Mikesh.

MAKING A GIS MAP
Creating a digital GIS map starts with source material — a paper map, aerial photograph or GPS survey. For its early systems, GroundLinkx obtained existing air photos of courses, scanned them and then digitized them. Digitization involves tracing feature edges on screen with the cursor and saving each as a file of point coordinates defining feature boundaries. At the same time, a database file is attached to each digital feature for input of its name, hole number and other details.

IntraSearch provides several new mapping techniques to GroundLinkx that dramatically improve the accuracy of maps and calculations. The first is orthorectification, a computer-intensive process that removes distortion from aerial photography. "Orthorectification improves the accuracy of the aerial photograph to 6 inches or less," said Mike Platt, president of IntraSearch, which has provided state-of-the-art mapping services for more than 50 years. "Like GIS, orthorectification was cost-prohibitive until recent computer advancements brought the production cost down significantly." For every GroundLinkx system ordered, IntraSearch acquires new aerial photography of the course so the GIS map will be up to date. On the ground, it obtains six to nine GPS survey points — key ingredients in the orthorectification. The result is called an orthophotograph, from which feature locations can be mapped with an accuracy of less than 1 foot.

"The beauty of orthorectification is that with less than a dozen GPS points, we can make a course map that contains more data than a costly field survey of 200,000 GPS points," said Platt. "Our entire GIS package with the map and aerial orthophoto commonly cost less than a full-course GPS survey."

However, several courses have already been surveyed with GPS, and that those surveys —

Continued on next page

Speak Of It
AS A PAINT BALL.
Assistant superintendents' salaries

Continued from page 1

"They are very important in the operation of the golf course and deserve the recognition for their role in assisting the superintendent," said Gerry White, head superintendent at Point Sebago Golf Club in Naples, Maine, and president of the Maine Golf Course Superintendents Association.

"I also look at it as an insurance policy. Heaven forbid I'm driving down the road and a tractor trailer hits me, the operation won't fall apart because I have a quality assistant. If I leave in the middle of the season or a family emergency arises, it's the same thing. I've explained this to the owners. I've also explained the need for two [well-compensated] assistants. I'm losing my first assistant this year and my second assistant will step up."

White knows opportunities exist for well-trained assistants to move on, even in Maine, where the mean superintendent's salary ($46,932) is near the bottom in the country and the average assistant's salary ($20,400) is dead last nationwide, according to GCSAA figures.

"What I'm trying to get them to do," White said, "when they leave here is to take jobs that are at or above the average pay scale in this state. That way they help elevate the salaries of superintendents in the entire state. Both of my assistants who have left here have accepted salaries above the average. Superintendents need to educate their assistants to only take superintendent salaries that are worthy of their skills."

By not settling for less than

Continued on page 20

Mapping expands

Continued from previous page

as well as most other digital map data — can be integrated directly into the GIS.

"An important advantage of GIS is that you can put a lot of your existing course information right into it," said Jason Bass, president of Point Forestry Customized Inventory & Imaging Inc. of Minneapolis, developer of a forest management package now customized for golf course use.

"Photogrammetry improves the resolution of the photos four to six times," said Platt.

When IntraSearch acquires the aerial photograph of the course, it also shoots two overlapping photos from opposing viewpoints, called "stereo" photos. IntraSearch applies advanced digital processing routines to these stereo photos so they can be viewed in three dimensions.

"Three-dimensional viewing means that GroundLinkx technicians can map much smaller objects into the GIS such as pins, utility boxes, and signs during the digitizing process," said Platt. "Those small objects would just appear as smudges on a two-dimensional photo and would be impossible to map into the GIS."

This type of photogrammetric mapping is offered as an optional service to GroundLinkx clients. IntraSearch also offers a digital topographic map of the course, which is a derivative of the orthorectification process and can be integrated directly into the GroundLinkx program. Most owners purchase the topographic contours layer to use in planning new construction and to determine surface water drainage patterns on their courses.

When the GIS program is in use, the superintendent can stack various data feature layers on top of the basemap on screen. The superintendent has two display options for the basemap — either a colored line map of the course or the orthorectified air photo underlay.

"Most clients use the photo as their basemap because the photograph contains so much more visual information than a simple line drawing," said Mikesh. "Superintendents are quickly learning that digital GIS mapping offers many useful tools and benefits previously unavailable for course management and maintenance."

Next month: Real-life applications of GIS and its future.

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CIRCLE #112
Assistant supers' wages

Continued from page 19

they deserve when they move up the career ladder, assistant superintendents are helping the entire profession, White said.

White said convincing his owners to pay his assistants adequately has not been a problem as long as he keeps his total personnel budget in check.

New York is on the opposite end of the spectrum from low-paying Maine. The average $34,914 paid assistants is second only to Hawaii nationwide, while the mean $59,721 superintendents receive places it eighth in the United States.

"I don't know a superintendent in the metropolitan [New York City] area who's making $60,000," said Stephen Rinzetti, director of golf at Wykagyl Golf Club in New Rochelle, N.Y. "That's not even the starting figure. The assistant's salary is pretty much on the money, though.

"The assistant's role has evolved in the past few years to include a lot more responsibility. The assistant is an extension of the head superintendent. And if the head superintendent is putting a lot of the things he was once responsible for in the hands of the assistant, you better have the best guy out there you possibly can. My success and failure is due in large part to the ability of the assistant who is helping me. If I don't get on the golf course for a day, a lot can happen in that single day. The assistant is keeping me abreast of what's happening out there. And if you want to attract good people, you have to pay good people." The increases head superintendents have made in recent years have generally exceeded those of assistants, Rinzetti said. Part of the reason is the large number of qualified assistants in the marketplace.

Rinzetti, likewise, encouraged assistants to seek no less than "current market value" in pay when moving from an assistant to a head superintendent post. "They shouldn't sell themselves short," he said. "Clubs are being shortsighted in luring someone in at a low rate because they'll only end up with someone who is unhappy who, once he finds out what the market rate really is, will start looking for a new position. Clubs should pay current market value and applicants should expect it. A lot of the clubs in the Met area that are hiring quality assistants as head superintendents are paying close to market value, more so than they did five or six years ago."

Right in the middle of the assistant's pay scale is Florida, where the mean salary of $27,843 is within $160 of the national average. "When the head superintendent is not on the property, the assistant is his ambassador," said Golf Course Manager Tim Hiers of Collier's Reserve in Naples, Fla. "He should also be an extension of your philosophy—to treat people fairly, be a good listener, organized, loyal, have experience, be ambitious and trustworthy. That tells how important the position is." Only owners/members who don't understand the value of the business bulk at paying an assistant at or above market value, Hiers said. As for the jump from assistant to head superintendent, assistants should not be surprised to be offered slightly less than a head superintendent would be for the same position, he added.

"If you run an NFL football team and you're looking at bringing in a quarterback with 10 years experience and a $1 million salary, you'd expect to pay more for the experience because that person has been there and done that," Hiers said.

Part of the reason is the large number of qualified assistants in the marketplace.

"There's a balance. Too many times clubs try to save money by bringing in an assistant rather than paying a head superintendent what he deserves, and sometimes clubs try to save money by bringing in an assistant rather than paying a head superintendent what he deserves," Rinzetti said. Part of the reason is the large number of qualified assistants in the marketplace.

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Average salaries

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<th>Assistant ($)</th>
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Tree inventory software eases the pain of tree removal

By ANDREW OVERBECK

“There are only two kinds of courses in this country,” said Dave Oatis of the U.S. Golf Association, “ones that are overplanted and ones that will be overplanted.”

Despite constant prodding by organizations like the USGA, most courses are just now starting to pay attention to their tree-management practices and implementing selective tree-removal programs.

According to Oatis, more courses are starting to feel the effects of tree planting schemes that were popular 20 to 30 years ago.

“The top three problems are improper selection of species, improper location and planting too many trees,” said Oatis director of the Northeast Region of the USGA Green Section.

These problems can lead to increased tree disease, weaker, poorly developed trees and increased competition with surrounding turf areas for sunlight, water and nutrients, said Dr. Jay Sipes of Virginia Tech University in Blacksburg, Va.

“The first step to combating these difficulties is to prepare a tree inventory,” said Sipes. “First, identify the trees; second, scout for disease and pest presence and damage; third, identify pests; fourth, implement a management plan to take care of these problems.”

GPS AND GIS

The second step, according to forester Jack Swaze of Swaze Burtiss Terra Turf and Trees in Houston, is to map the golf course with Global Positioning System (GPS) and Geographic Information System (GIS) software that provides superintendents and greens committees with a visual idea of how trees and turf are interacting on the golf course.

“Most courses are on a collision course with nature and they are going to have to manage trees just as they manage the turf in order to have optimum conditions,” said Swaze. “We catalog and identify trees on an aerial map that assesses what they have and then the software can predict what a tree is going to do down the line.”

The PC-based software program is prepared for each golf course and is a “working tool” that can be used as a constantly evolving management device to change and update course conditions over time. Swaze recommends that an arborist review the data every four to five years to ensure that a proper management program is followed.

Jason Bass, certified arborist and president of Point Forestry in Eagan, Minn., prepares similar turnkey software programs for golf courses.

“We do GPS and GIS tree inventories and we catalog tree species, condition, damage and disease,” said Bass. “Then we show the superintendent where trees are too thick, where the trouble trees are, and then the software can predict what a tree is going to do down the line.”

Who can take an oak tree? The Stump Man can

By ANDREW OVERBECK

WALNUT GROVE, Mo. — Sick and tired of dealing with the hassles of owning a medium-sized tree-service company, Ted Crews sold his share of the business to his brother four years ago and struck out on his own. Crews, a certified arborist, is now waging a one-man battle to rid a seven-state region of a persistent evil...tree stumps.

“I wanted to do something that I could do by myself,” said Crews. “A stump grinder was the only machine that one man could operate and make a living with.”

And what a living Crews makes. In order to make his business feasible, he owns the most powerful stump grinder on the market. He calls his company the Crews Service Co. and says that when he meets a problem, he says, “Have stump grinder will travel...” is the raison d’etre of the Crews Service Co.

Trees versus turf: A constant battle over water

By JACK SWAYZE

That’s a fine little sapling you planted there. It may not consume much water today, but have you considered the future?

A plant’s leaf surface area basically determines its water usage. The larger the leaf surface, the greater the water loss. Evapotranspiration (ET), the loss of moisture into the atmosphere through the leaves, is affected by temperature, humidity, time of year, wind exposure and sun.

In the winter, for instance, dormant trees and turf require less water due to lack of foliage, cooler temperatures, and shorter daylight hours. Conversely, in the summer the usage can be significantly greater due to higher temperatures, sunlight, wind, and so on.

Cultural practices such as mowing keep the golf turf leaf surface area at a prescribed height. The moisture loss by the relatively small leaf surface area of turfgrasses is minimal compared to tree leaves. The ET is still affected to a great degree by the temperature, wind, humidity, etc.

Overall, the water requirement of the turf is constant from year to year as it covers only the same given area with no change in height or biomass. The golf course will probably always average the same annual water consumption for the turf year after year.

However, trees differ from turf in that they have woody, conductive and support tissue that connects foliage with the tender root hairs in the soil. The canopy of the tree is in equilibrium with its roots in the fact that one physiologically supports the other. Leaves are responsible for photosynthesis (carbohydrate production), while roots absorb moisture and nutrients. One can not exist without the other.

Trees have root systems that can extend for hundreds of feet and are often two or three times as long as the tree is tall. Tree roots’ influence on turf can be considerable as they can extend into and grow across fairways. Trees can overcompete turf for moisture, nutrients and oxygen.

What use is a dead tree?

By RON DODSON

What is a snag?

A snag is a dead or dying tree that is left standing. To many people, a snag is just firewood waiting to be cut, and until recently, foresters systematically removed dead trees because it was thought that they harbored disease and insect pests. In fact, most dead trees do not harbor active diseases or damaging insects.

It is now widely recognized that many bird species feed heavily on insects and thereby help prevent serious insect outbreaks. But how does a tree become a snag?
Swayze on trees

Continued from page 21

By contrast to turf, trees are ever increasing in size. Each year they add more biomass in the form of leaves, twigs, trunk tissue and roots. This added tissue growth means an added amount of water, nutrients and oxygen needed to sustain the tree. A small tree requires only a few gallons of water a day. But as it grows, each year the amount needed increases proportionately. As the tree gains height, it is also subject to more extremes in wind and exposure, which can increase the ET rate and thus increase its water needs.

Water consumption for large trees such as the large live oak can possibly exceed 1,000 gallons per day when the ET rate is high. Should a golf course have thousands of trees, the moisture consumption rate of those trees will often well exceed the turf requirements. This amount of water for trees can run into the hundreds of thousands of gallons per day.

Another common misconception is that tree roots grow at deep depths. Generally, this is not true. Trees, like turf and all other plants, require oxygen for root growth, and therefore roots are only found where oxygen is present. In fact, oxygen availability to the roots is a singular limiting factor for any plant. Since oxygen is more readily available near the soil surface, tree roots are most often found in the turf root zone. Keep in mind that a golf course is irrigated, fertilized, and aerated for better turf quality.

Trees are opportunistic and will send roots where conditions are optimum. In general, the better turf conditions are, the better it is for trees. If irrigation practices are to water lightly each night, then over time tree roots will evolve at a more shallow depth to pick up the available water. Deeper watering will help keep tree roots slightly deeper.

To help in keeping golf turf healthy with less tree-root influence, superintendent should root prune and/or use root barriers.

Root pruning along fairways, tees and greens can give several years of results, but can also damage the trees and cause stress problems if trees have become dependent on the turf irrigation. This approach should be done with caution if valuable trees are at risk.

Removing unnecessary trees as well as pruning will reduce overall moisture losses to trees. Pruning is remedial, though, unless major structural limbs are removed to permanently reduce the tree's size. This can get into aesthetic issues and likewise should be carefully addressed.

Nature has provided a natural selection of tree species for all plant zones. In arid regions, species survive on minimal water and should be used where practical. The same is true for wetter regions where water issues are of less concern. In any case, planting the correct species in the right place is important. Keep in mind that the trees will grow and will require more water. Hopefully, the tree will have its needs met without compromising the turf quality. Remember that the game of golf is played on turf.

Dead trees

Continued from page 21

Once a tree dies, the process of decay begins. Snags become areas of insect activity, fungal growth, and overall decay. Holes, or cavities, occur in both living and dead limbs and may occur through the process of natural decay, or wind, or lightning damage. Large cavities can occur where major limbs die and fall from the trunk. As snags decay, hardwood softens, and damaged areas become insect-infested. The cavities are enlarged by birds and mammals digging into the cavities and picking apart the wood for insects and for shelter or nesting sites. What wildlife uses snags?

Two main groups of wildlife use snags — primary and secondary cavity nesters. Primary cavity nesters are species that must make their own cavity nest by drilling or pecking it out of the wood of a tree. Secondary cavity nesters either live in cavities made by primary cavity nesters, or in holes that have been left through the process of natural decay or damage. Insect-eating wildlife species that are primary cavity nesters and that are attracted to snags include all of the woodpecker species and nuthatches. Secondary cavity nesters include chickadees, tufted titmouse, brown creepers, as well as several species of larger birds such as the screech owl and American Kestrel.

Some of the larger trees, such as the shag bark hickory, also provide roosting and nesting places for several species of bats, which are the single most important form of night-flying, insect-eating wildlife.

In addition to bird species, a variety of mammals, amphibians, and reptiles may also benefit from the food and shelter provided by decaying trees.

What are the benefits of snags?

Leaving dead and dying trees standing when they don't pose a threat to the safety of humans provides valuable resources for a wide range of wildlife species. Insect-eating activity is just one benefit of tree snags — nature's own way of controlling pests. Equally important is their role as nesting sites for a variety of wildlife species.

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VigaROOT is a NEW turfgrass management tool designed to help reduce stress and stimulate root growth through enhanced water and nutrient uptake.

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VigaROOT is packaged in a foil bag to provide easy use and ensure longer shelf life and stability. This means no settling or "bowling balls," and the fully chelated micronutrients guarantee outstanding tank mix flexibility.

So relax. There's no need for stress; a schedule of quick, cost-effective applications of VigaROOT can return turf to peak performance perfection!
Dead trees
Continued from page 21

Dead trees can also be used to mount additional nesting boxes, increasing the available nesting sites for cavity nesting birds. Snags also serve as valuable sites for perching and shelter.

Snags overheading water provide perches for spotting fish for prey by kingfishers and herons, or at the edge of fairways for catching insects by flycatchers.

They may also serve as den sites for small mammals. Den trees have trunks or large limbs hollowed out by rotting with an opening to the outside. This includes some snags, but den trees typically are still alive enough to continue to produce mast (nuts and acorns) or fruit. Den trees are used by honey bees, birds, and mammals varying in size from a mouse to a black bear. Hollow trees broken off at the top and open to rain and snow provide less protection, but are sometimes used by birds like great horned owls for nesting protection.

Once a snag falls to the ground it continues to be beneficial to wildlife as a source of food and shelter, as well as to return nutrients to the soil. A fallen snag and other downed limbs, twigs and debris may also be used as part of a brush pile providing additional wildlife shelter and protection. Brush piles placed in shelter areas along the edges of fields, fairways and woods provide escape, cover, nesting sites and shelter sites for rabbits, wrens, woodchucks, skunks, Northern prairie skinks, red foxes, garter snakes and many other species. Brush piles can also provide important reptile, amphibian, and fish habitat if placed on the edge of a small pond so part of the brush is submerged.

What can you do?
• Do wildlife a favor and start a snag conservation program if you don’t already have one.
• Develop a management strategy to retain snags in various stages and in a variety of habitats.
• Monitor snags for safety and development of undesirable pest problems.
• Provide additional nesting sites for birds by leaving snags as a source shelter and food.
• Reduce the amount of trees and limbs you have to dispose of by leaving them standing to help all of the cavity nesting forms of wildlife that are looking for homes.
• Use decaying snags and limbs in brush piles.
• Educate club members about the economic and environmental benefits of leaving dead trees to enhance habitat and provide nature’s resources for the living.
• Write a short article for your club newsletter, post a sign on a snag explaining its natural resources, take slides and post photos to demonstrate the integration of nature’s way as part of the golf course — a contribution to the environment as well as to the aesthetic uniqueness of the course.

Tree software
Continued from page 21

and we offer solutions ranging from pruning to cleaning, or removal.

"We also have a three-dimensional feature that lets you view the tree over time so that you don’t put a $400 tree in the wrong place."

However, Bass has found that superintendents are still too reactive when it comes to tree management.

"Many are calling us too late. We have seen trees that have been planted too deep, that were suffering from compaction, neglect, poor pruning and structure," said Bass. "People need to remember that it costs three times more money to remove a tree than it does to maintain one."

Terry Gill, superintendent of BraeBurn Country Club in Houston, is learning this lesson the hard way.

Swaze’s Terra Turf and Trees completed a three-hole tree inventory pilot program at BraeBurn in August and the results of that work are already proving to be worthwhile. "We identified 50 ‘problem trees’ and did pruning and removal and they were able to come in and sod areas where they couldn’t before," said Swaze.

The impact of the tree work became more evident in early September when a storm packing 60 mph winds caused extensive tree damage, except on the three fairways in the pilot program.

"The trees that had been trimmed we had no damage on, but on the rest of the golf course, we had substantial damage," said Gill. "It took the better part of four days with 18 guys working to clear it out, not to mention laying new sod."

The cost of Swaze’s tree inventory was around $14,000 and the subsequent tree work will cost the BraeBurn close to $100,000 this year and $50,000 for the next three years to get the course onto a proper tree-management program.

The average cost of a tree inventory that includes maps, software and recommendations for a management program runs around $15,000 per 18-hole course, according to Point Forestry’s Bass.

SUN-MAPPING

While GPS and GIS help in identifying, cataloging and mapping the course and its trees, sun-mapping technology developed by Toronto-based Arbor Com Inc. is revolutionizing tree-removal practices.

Arbor Com generates sun-mapping software around green and tee areas that are suffering from inadequate sunlight and poor turf growth.

The software is extremely complex and as a result is not a turnkey solution. But it does offer the most accurate calculations and recommendations for tree removal.

For example, it can identify which branch on a tree that needs to be removed in order to improve sunlight penetration.

"We take longitude and latitude measurements on site and that tells us how the sun moves through the property," said Scott Robinson, vice president of Arbor Com.

"Then, using surveying technology, we measure 45 points around the green and that tells the software where the green is so it can generate a three-dimensional map."

From there, Robinson measures and identifies the trees surrounding the green, including vertical and horizontal heights so the software knows where the trees are in relation to the green.

"Then we have a model where we can get the computer to show us how shadows move on the green and how many sunlight hours the green is getting," said Robinson.

Robinson then compares the needed light penetration for the particular turfgrass with amount of sunlight hours that the green is actually getting. "If it is deficient and not meeting the goal, we can identify the problem trees and run the model to see what part of the tree is blocking out light," said Robinson.

This simulation process usually begins...
Arkansas, Kansas, Oklahoma and Illinois from grinder on the market, a Vermeer 1102. With a speedy grind as many as 150 stumps in one day and can grind down a 20-to-30-inch stump in three to five minutes.

"I have the grinder hooked onto the back of my pick-up," said Crews. "It will cut a swath eight feet wide and it will move out five feet, so I can usually just back up and grind it away without repositioning the truck."

However, by charging less Crews must rely on volume to make a profit. "Have stump grinder, will travel" is the raison d'être of the Crews Service Company.

Crews services more than 100 golf course accounts in Texas, Missouri, Louisiana, Arkansas, Kansas, Oklahoma and Illinois from his home base in Walnut Grove. Once he gets a request from a golf course in an area, Crews works to set up other work in the region to make the trip worthwhile.

Crews services more than 100 golf course accounts in Texas, Missouri, Louisiana, Arkansas, Kansas, Oklahoma and Illinois from his home base in Walnut Grove.

Tree software
Continued from page 23

in June, when the sunlight is the brightest. "Then we go to July and August and down the line to re-tune it to the goal since sunlight hours change from month to month with the angle of the sun," Robinson bases his recommendations on these cumulative measurements and sunlight information.

"This way a green committee can see all the factors and decide if the cost of removing the tree from aesthetic, strategic and historic factors is worth the extra light that they are getting," said Robinson. "This makes it a hell of a lot easier to make a decision than just me and the superintendent telling them what we think will make a difference."

Arbor Com has been using sun-mapping technology on golf courses across the country for three years and has worked for Augusta, Ga. National Golf Club, Oak Hill Country Club in Rochester, N.Y., and Point O' Woods Golf Club in Benton Harbor, Mich. The company charges around $2,500 per site to run the sunlight mapping tests. The number of courses that Arbor Com services is growing each year and Robinson expects it to continue.

"While expectations for green quality have gone up, superintendents are also becoming aware of how important trees are to golf courses and they don't want to take trees out unnecessarily," said Robinson.

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Durable
Fore-Par direction and rules signs are weather proof and golfer proof. Wind. Sun. A whack with a golf club. A swift kick. They'll stand up to almost anything. They retain their flexibility and appearance indefinitely, even under extreme weather conditions. Messages are screen printed on one or two sides with a tough, pliable coating that bonds to the sign's surface.

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New production techniques and improved raw materials have provided us with significant savings which we are pleased to pass along to our customers. If you thought the legendary Elasto-Signs™ were too expensive, it's time to take a second look. Our new affordable pricing plus years of durable service make Fore-Par Elasto-Signs™ the best buy on the market.

For more information on the Fore-Par accessories line, Call 800 843-0800, and get more for your money from Fore-Par.
Cub Cadet Four-In-One ready for fall

The new Cub Cadet Four-In-One CSV 220 combines the functionality of chippers, shredders, vacuums and blowers into one ultimate cleanup companion. It features a 5-hp Briggs & Stratton easy start engine, with plenty of power to handle any task. Other features include 1-1/2-inch branch chipping capacity, a patented 22-inch vacuum intake nozzle, a standard blower, single height adjustment and a 2-bushel collection bag.

Excel Hustler adds front-mounted StumpCut'R

Excel Hustler has introduced a stump cutter for its front-mounted turf tractors. Both the 3000 series and the 4000 series utilize the new patented StumpCut'R. The Hustler StumpCut'R offers mobility, high productivity, and versatility. It is mounted on the zero-turn Hustler and can get in and out of position much faster than self-propelled, trailer-type, or walk-behind type cutters. Hustler powerplants come in 23-, 28-, 38-hp diesels, or 54-hp gas. The PTO-powered 15-inches-diameter cutting wheel can cut stumps from up to 23 inches above to 14 inches below ground. A small hydraulically operated dozer blade can be used for chip removal and to backfill stumps.

Reemay introduces Typar Tree Protector

Reemay, Inc. introduces a new product to its family of lawn and garden fabrics—the Typar Tree Protector. Typar Tree Protector can be easily and tightly wrapped around young trees to protect them. It stretches as the tree grows and can be left in place for several years, protecting the tree from mowers, weed eaters, deer, insects, and anything else that could injure it and therefore affect its health.

In addition to protecting the trunk from damage, Typar Tree Protector prevents bark splitting. It is available in 4-inch by 25-foot rolls, which will cover three or four young trees.

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The Turf Solutions Dry Sprayer uses air-blast technology to blow seed into the turf canopy, allowing for better seed-soil contact.

Dry Sprayer
Continued from page 1

The Turf Solutions Dry Sprayer uses air-blast technology to blow seed into the turf canopy, allowing for better seed-soil contact," said John Wicker, vice president of Turf Solutions, the service arm of local distributor Southeastern Turfgrass Supply. "We built our first machine three years ago and we do the final assembly, modifications and shipping out of Jacksonville."

The Dry Sprayer features a 1,000-pound ground-driven hopper unit that distributes seed via a clutch-driven paddle to tubes that run down to the turf canopy. "This leads to better germination, uniform coverage and reduced seed requirements," said Wicker. "By decreasing the seed rate, we can decrease the seed cost." The Dry Sprayer can cover 120 acres in one day. Wicker said that the Dry Sprayer can cover 120 acres in one day.

The Dry Sprayer is ideally suited for fairway applications and can cover 120 acres in one day. Wicker said that the Dry Sprayer can cover 120 acres in one day.

Continuing from page 1...

The Dry Sprayer also eliminates the need for crews to "beat" the seed into the turf. "We just mowed right behind it and we were done," said Davis.

Gary Snyder, superintendent at Harbor Town Golf Links in Hilton Head, S.C., said he too appreciates the convenience. "Before, it would take two to three days," said Snyder. "Now we can get our fairways done in between play and we don't have to close down the course."

Turf Solutions has built several Dry Sprayers and uses five of them in its service fleet which has 60 accounts throughout Florida, Georgia and South Carolina. "We will do about 4,000 acres of overseeding this season in the Southeast," said Wicker.

Thanks to word of mouth, interest in the Dry Sprayer has extended beyond the Southeast. "We have gotten calls from people in California and Arizona," said Wicker. "But we just started selling the machines this year so we couldn't justify getting into that market just yet." With demand on the rise, Wicker expects to ramp up assembly next year and production could be around 40 to 50 units. The Dry Sprayer retails for between $15,000 and $18,000.

While Wicker admits that this new technology could catch the eye of larger equipment manufacturers, he plans to keep it. "We are not actively seeking out larger companies with this," said Wicker. "Our name is trademarked and we have patents out on the design characteristics. Our guess is that they'll come to us."
Crenshaw, Coore on top of their ‘design’ game

Ben Crenshaw has been in demand this year. Most people are following his capactiy of the American team leading up to September’s Ryder Cup. The challenges were intriguing. But the PGA Tour great also has been busy designing golf courses, including the recently opened Cuscowilla in Eatonton, Ga., and tracks at Notre Dame University and on Long Island (East Hampton Golf Club, see accompanying story), which will open next spring. Crenshaw and design partner Bill Coore have achieved their greatest acclaim for Sand Hills in Mullen, Neb., Kapalua Golf Club’s Plantation Course in Hawaii and Barton Creek in Austin, Texas, where Crenshaw was born. Editor Mark Leslie caught up to Crenshaw and Coore on a job site in Texas, just before the Ryder Cup.

Golf Course News: Coore and Crenshaw are no longer rookies of golf course design. Have you changed your designs over the years?

Ben Crenshaw: We continue to do a couple projects at a time and still feel comfortable with that and with the people who work for us. We can’t see that changing too much in the future.

Bill Coore: If you look at the work we did 14 years ago, you’ll see some differences. We make each course different. We don’t want a stereotyped style.

When we did Kapalua and Barton Creek, they had some sizable greens. The tendency was for people to say, ‘These guys do big fairways and big greens.’ We only did that because of the

Green, Aaron and Mahaffey design 9s for 27 in Florida

LADY LAKE, Fla. — Hubert Green, Tommy Aaron and John Mahaffey are designing separate nine-hole golf courses as part of the new Glenview Champions Country Club being developed by The Villages retirement community here. H. Gary Morse, chief executive officer of The Villages, selected Green, Aaron and Mahaffey to collaborate with

Golf Architecture Group of Clifton, N.J., in creating the 27-hole complex. The Villages had 126 holes of golf already in use. The Champions complex is to be named after the golf course hosts for future professional tournaments. The Villages recently hosted the 1998 LPGA Samsung World Championship. It also is home to the 1999 Villages Charity Challenge between Juli Inkster, Nancy Lopez and Helen Alfredsson.

“Serendipity made this ‘private resort’ happen for mega-Ford truck dealer

BY MARK LESLIE

LAKE PLEASANT, Ariz. — Serendipity and a passion for the game of golf. Those two factors have led Ford truck mogul Gary McClung to the verge of opening a unique golf community here, boasting courses designed by Rees Jones and Greg Norman along with memberships in a "private resort.”

"The way this whole project has come together has been a bit of serendipity,” said McClung, who is the world’s largest Ford truck dealer with his Midway Ford/Sterling Truck Center in Kansas City, Mo., and six other locations in Missouri, Kansas and Arkansas. "You have a problem and walk around and bump into the answer.”

Examples abound around this project, called Quintero Golf & Country Club:

• The Rees Jones Connection: McClung and wife Lea are members at Troon Golf and Country Club in Scottsdale, where they met course architect Cabell Robinson at a dinner party. Robinson introduced the McClungs to Jones, who not only jumped aboard the project but helped select the property.

• The Greg Norman Connection: When searching for a way to contact Norman, McClung received a free gift in the mail, a subscription to a newsletter which told readers Norman’s phone number. Lead architect Jason McCoy was in the office when McClung called, and, with Norman, visited the property shortly afterwards, both declaring they were ecstatic with the site.

Quintero: Rees Jones, The Shark and unique financing

Financing carefree travel: no luggage or cleanup

BY MARK LESLIE

LAKE PLEASANT, Ariz. — The weather is getting better in Chicago, so businessman Max Flit hops on a plane to Phoenix, is picked up at the airport by a limousine and is driven a short distance to his second home where people have been preparing his arrival, stocking his favorite foods in the fridge, moving his clothes onto hangers, and arranging his preferred tee times.

This scenario is part of the dream that Gary and Lea McClung envision for Quintero Golf & Country Club in this Phoenix suburb.

"Carefree travel," said McClung, "no luggage or cleaning up when arriving and leaving. It’s like a private resort.”

He and his wife belong to six clubs, McClung said, “and all are wonderful, but none has all the elements we think would fit a certain niche in the market.”

Besides two courses designed by Rees Jones and Greg Norman, Quintero’s 220 acres will include a wide variety of properties: large estates up to 20 acres; one-to
Crenshaw on the 'unjuiced' golf ball
Some people have supported the idea of giving PGA Tour players a ball that has 10 percent less distance.
Does Ben Crenshaw think these balls would help in design?
“I think it may,” Crenshaw said. “And it may help in assessing what happens from week to week at a PGA Tour event. Jack [Nicklaus] was the first to come out with that idea. It was probably a little revolutionary for its time, but I think it makes good sense over the long haul. I can’t believe how far people hit the ball these days. You figure something must be done at some point. You don’t know how that will sit, but I think it’s a very intriguing proposition.

Q&A with Ben Crenshaw and Bill Coore
Continued from page 27
We’ve always tried to apply time-proven design principles. The interpretation of those principles hopefully is a little different in each case. But have we changed dramatically in terms of style or philosophy? I don’t think so.
GCN: Ben, you’re a golf historian and traditionalist. Has the pendulum swung back to the point where most architects are in your camp — that of the classics?
Crenshaw: A lot of projects these days seem to have a heavier commitment to golf. People are asking, Why is a course being built in a specific area? What are the needs? Is it for golf, or real estate? Everybody has to ask those questions. Maybe there is a trend back to the classics, which is great. I don’t think Bill or I would take any credit. It’s flattering. But there are a lot of architects who are eager to get out their best work. That’s very, very healthy for the people who build golf courses.

GCN: What about the philosophy of a more minimalist approach to design?
Crenshaw: Trends have always been felt, no matter what architectural endeavor you speak of: buildings, offices or residential. It is the same in golf course architecture. It’s wonderful if people have rediscovered courses they had grown up on, or go to new places that have that commitment to minimalism.
All of us in the building business continually are challenged with the advances in golf equipment and agronomy. The overall aim is to make it playable.
GCN: Part of it has to do with the available land. There are precious few sites with sand like Pinehurst or Long Island. Are those two giving you the opportunity to build the old-fashioned kind of courses that you like?
Crenshaw: Sand is certainly a blessing no matter where you find it. There is a myriad of things that sand helps so much. It’s certainly aesthetics, it’s raw material, it’s slashes of sand, that lead one to believe it is more natural. It’s a lot more economical in every sense. East Hampton was wonderful because of that main ingredient as well as the native grasses.

GCN: What is your favorite type of hole to design?
Crenshaw: I like short par-4s. They’re very difficult to bring off. But, properly brought up, they’re fun. If you have a hole where it’s a thrilling choice to make, but it’s exacting as well, it brings a real shot value into the scheme of things. Length is always a fascination because nearly everyone can get there in two strokes.
A long par-4 is something as well. But you never know how long to make them these days. You never know where to end — at 475 [yards] or whatever. A 310- to 340-yard hole, with smallish greens and exacting nature, can be a lot of fun.

GCN: With Tiger playing, it could be a 3-wood for that hole.
Crenshaw (laughing): It might be a strong 3-wood for Tiger.
GCN: Haven’t we lost the strategic value of the older courses because of the distances the pros hit the ball?
Crenshaw: If these courses are played in optimum conditions —
Green, Aaron and Mahaffey team up

Continued from page 27

nament play was to bring in the guys who have been winning the tournaments."

The nine by Green, Aaron and Mahaffey will have distinct identities reflecting the styles and experiences of each man.

Green, a 19-time winner during his 26 years on the PGA Tour, worked with Fuzzy Zoeller in designing the Tournament Players Club at Southwind in Memphis, Tenn.

"I've tried to utilize my experience from playing some of the best courses around the world — to create a course here at Glenview that is challenging, yet memorable for those who will play it," Green said. "The greens will be large enough to accept a shot and open enough in the front to allow for a golfer to run the ball on to the green.

"In the end, there should be enough variety to bring the players back again and again, and I feel we've been able to accomplish this with my golf course."

"I feel very proud with the results of my course at Glenview," he said. "There is plenty of variety throughout, with a good change of direction on each hole. We've incorporated some water features and trees in the strategy to provide a challenging yet aesthetically pleasing experience for the golfer."

"As part of my design philosophy, I tried to incorporate a strategy that would accommodate all skill levels of golf," said Mahaffey. "My intentions were to design a course that is enjoyable for high-handicap players, yet under the right conditions, challenge the better players.

"I feel the course is aesthetically pleasing and detailed enough to eliminate complacency for those who will play. Golf should be fun and enjoyable — and in the end, an experience you want to repeat."

The three are scheduled to play the course at a grand opening set for Nov. 30.
Couples, Bates collaborate

TALLAHASSEE, Fla. — PGA Tour star Fred Couples and Palm Beach Gardens-based golf course architect Gene Bates will design an 18-hole golf course at Southwood, Arvida’s master-planned community underway in southeast Tallahassee. Bates and Couples expect to break ground on the course late this year.

“I’m looking forward to working with Gene on the layout for Southwood,” Couples said. “Every course has its own personality and our goal is to create a design that complements the natural flow of the land, and presents a fun and challenging golf experience for players of all levels.”

“We are delighted to have such a talented team designing the first course at Southwood,” said Timothy D. Edmond, president of Arvida’s Capital Region, who is responsible for developing the 3,200-acre community four miles southeast of the state capitol. “We intend to operate it on a semi-private basis and hope to see the first ball teed up in early 2001.”

The holes will meander around groves of massive forests of old oaks, play past natural lakes and marshes, over rolling hills and meadows.

Quintero adopts ‘The Jerk Rule’

LAKE PLEASANT, Ariz. — To maintain courtesy and decorum between club members and employees, owner Gary McClung will institute a special rule at Quintero Golf & Country Club. We’ll call it ‘The Jerk Rule.’ Every year, McClung said, the staff will have the opportunity to vote for “The Jerk of the Year” among club members and declare the reasons he or she earned that honor. The club will give that person the option of “adjusting themselves to proper decorum, or we’ll pay them off,” McClung said.

The hope, he added, is that there will be no “Jerk of the Year.”

Quintero financing

Continued from page 27

four-bedroom homes; rental homes as an investment; and one- to three-bedroom time shares.

McClung is financing the project in a unusual way. Normally people must purchase property to buy memberships at high-end private clubs.

“We’re backwards,” McClung said of Quintero. “You have to buy a membership before property. So with these membership sales, my risk in construction, interest, etc. is significantly less than most developers.”

McClung’s fee structure is unique as well.

Memberships started at $50,000 and go up $5,000 after every 25 members.

Founding memberships (15 of the 18 available have been sold) may, in fact, earn big paybacks. The cost is $150,000, but when the 401st membership is sold, the first founding member will get $200,000 and still retain his membership. The second and successive founding members get their money back, and more, when other levels are reached.

“It’s not an equity club,” McClung said, “but as the price of membership increases, when a member sells his membership back to the club he gets 90 percent of the going price... The reason I’m doing that instead of equity is that member-owned clubs are often the most poorly operated businesses in the country. There is no focus of ownership, members change, and there is no means of discipline; employ-ees can’t uphold the rules because a member can get them fired.

“A benevolent ownership is the best way.”

McClung hopes to top out at 700 members for the two courses — 350 for the main course.

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Or call 1-800-233-0628. We can’t solve every turf problem, but we come pretty close.
We can’t wait to get started. It’s very dramatic, very unique and very severe. Greg’s been out to the site twice already.”
— Jason McCoy
Greg Norman Course Design

“We will be doing a lot of blasting,” said McCoy. “When it gets done, it will be spectacular.”
Norman’s designs average around 70 acres of turf, and this track will fit that mold. “There will be a lot of carries over rock quarries, but not into the greens. The approaches will be bump-and-run,” McCoy said. Yardage on the Norman track will be 7,200 to 7,300 yards from the back tees and 5,800 to 6,000 from the front.

Construction of the Norman course will follow completion of Jones’ 18. The two will share a common clubhouse.

“The main reason we’re doing it,” said McCoy, “is because of Gary and Lea McClung. I have never met two individuals so devoted to making something happen.”

There are plenty of products that provide preemergent control of crabgrass, goosegrass, and other unwanted grass weeds. But if your problem is Poa annua on putting greens, your choice is limited.

Proven weed control and a high level of turfgrass tolerance have made Bensumec 4LF the most widely trusted preemergent herbicide for greens and other highly maintained turf areas. It is also compatible for tank-mixing with many other turf products.

Consider these advantages:
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Excellent control of Poa annua plus crabgrass and other weeds.

“We’ve used Bensumec 4LF for four years making split applications in the spring, and sometimes a fall application, too. I am more comfortable with this preemerge than with PGRs for our greens and tees. And we’ve had excellent control of Poa as well as crabgrass and other weeds.”

Stuart Cagle, C.G.C.S.
Old Oakland Golf Course
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GOLF COURSE NEWS

CIRCLE #123

October 1999 31
We installed the first TifEagle Bermudagrass golf course greens at Inwood Forest Golf & Country Club in Houston, Texas. Left to right, is Kevin Bryant, Milberger Turfgrass Golf Course Manager, Ron Summers, Inwood's Golf Course Superintendent, Arthur J. Milberger, and Dr. Wayne Hanna, USDA/ARS, breeder of TifEagle.

New wetlands regs could have major impact

Continued from page 1

current NWP 26 expires at midnight Dec. 30. "There may be minor tweaking, but nothing major," said Dr. Richard W. Whiteside of Wetland and Ecological Consultants in Woodstock, Ga. But the Army Corps of Engineers [USACE] is encouraging all its districts to modify them [NWPs] to meet their specific needs. Every district has published their own add-ons to this headquarters program, and they are all even more restrictive."

But Carol Sanders of the USACE public affairs office said: "We are still accepting comments. After Oct. 7, we will decide what is appropriate. The schedule calls for us to issue the final NWPs in early November, with implementation 60 days later."

Whiteside, who deals with a number of golf-related developments, predicted the new NWPs will affect more than half the new golf projects.

According to plans, NWP 26 will be replaced by five new NWPs, but a USACE statement reported: "Permittees will have up to 12 months to complete activities authorized under NWP 26, provided construction activities commence, or are under contract to commence, before the existing NWP 26 expires."

NWP 26 was perceived as too broad," said Sanders. "With the NWPs you are trying to look at activities that are similar and have similar effects, such as recreational activities."

"A lot of the courses we're working on are in low-lying areas," Whiteside said. "Stand-alone community developers don't have too many problems with NWPs because they don't need to go so low. But courses associated with residential or ancillary development are usually forcing architects down into floodplain areas. That's when these NWPs come into effect."

NWP 26 was last revised in January 1997, reducing the number of acres a project could affect. Before then, a developer could impact 1 to 10 acres of isolated wetlands or stream headwaters. One acre could be affected without seeking permits. Under the 1997 revision, permits were required for any impact of more than 1/3 acre. The 10-acre maximum of wetlands that could be affected was reduced to 3 acres.

NWP 39, the major revision expected to take effect in January, will reduce that 1/3 acre to 1/4 acre. The 3-acre maximum would remain in place but may often not be met because the Limit on any project will be 1/4 acre plus 2 percent of the total project acreage. For example, a 100-acre project site may have a maximum impact acreage of 2 1/4 acres — 1/4 acre plus 100 acres times .02.

The 3-acre cap would be achieved when the size of the project site reaches 137 1/2 acres.

Under the anticipated new regulations, mitigation is going to be required for even the smallest of impacts — anything exceeding 1/4 acre," Whiteside said. "And you'd better be in-tuned to your local district restrictions."

The relatively recent cottage industry, land banks — wetlands people have bought and set aside for mitigation — should be in high demand.

According to USACE, NWP 39 will be joined by NWPs 41, 42, 43 and 44. NWP 39 is intended for residential, commercial, and institutional development activities, including construction or expansion of building foundations or pads, as well as attendant features such as roads, utility easements, sidewalks, and similar infrastructure, as well as playgrounds, ballfields, golf courses, and nature trails.

If the proposal remains intact, a pre-construction notification submitted to the USACE "will be required for wetland impacts exceeding 1/4 acre, or for any impact to open waters such as intermittent and perennial stream and lakes."

The regulation, Whiteside said, may be more applicable to clubhouse and maintenance building construction than the course for many developers. Another new rule, NWP 42, authorizes construction or expansion of recreational facilities.
Wetlands regs
Continued from previous page

which could include golf courses and ski areas, "provided substantial grading and filling is not required."

NWP.43 might also affect golf development. It authorizes construction of new stormwater management facilities and maintenance of existing stormwater ponds and basins. A 2-acre maximum impact for new construction is expected under this NWP, but excludes impacts to perennial streams. A pre-construction notification must be submitted to and approved by the USEA for construction or maintenance of existing facilities if impacts exceed 1/4 acre of wetlands or 500 linear feet of intermittent stream.

These various pre-construction notifications usually must include such items as a stormwater facility maintenance plan, a delineation of streams and wetlands, mitigation for new construction impacts, and measures taken to avoid and minimize stream and wetland impacts.

When the new regulations take effect, Sanders said, "We're not anticipating it slowing things down. By their very nature, NWP's speed up the process. This will probably make the process more efficient because you won't need more analysis."

Johnston signs S.C. design deal

FORT MILL, S.C. — Clyde Johnston has been retained to design an 18-hole daily-fee golf course here, called Springfield Golf Course. The course is owned and will be managed by Leroy Springs & Co., Inc., which has three other courses within a 30-mile radius of Springfield. Clear Springs Development Co. is making available the land for the course. Both companies are located in Fort Mill. In designing Springfield, Johnston will work along the banks of Sugar Creek, a swiftly moving, 70-foot-wide waterway that drains rainwater from much of the metro-Charlotte area.
DUBLIN, Ireland — Mark O'Meara has announced that he will be designing his first course in Europe at Carton Demesne outside Dublin. The project will consist of two courses, the other designed by Colin Montgomerie, and a hotel and convention center. The course will be located at Carton Demesne, a 17th-century estate that was the ancestral home to the Fitzgerald's Earls of Kildare. “The property offers a host of options and is absolutely perfect for the development of a world class golf course,” said O’Meara. “We turned the first shovel of dirt on May 4 [1998] and the owners played the course in late October. The last date of seeding was Sept. 15. They wanted to get it done quickly so they could have it up and running this year. The person most responsible for getting the job done on time and on budget was project manager Robbie Hellstrom, who had worked with Hurdzan at Le Diable at Mt. Tremblant [Quebec],” Straka said.

“When we started talking to Eugene about this project,” Straka recalled, “he was looking for a project manager. We told him we had just finished working with Hurdzan at Le Diable at Mt. Tremblant [Quebec],” Straka said. "We used experienced shapers. The builder was a local person, Harry Annear of Kings County Construction. He had never built anything of that magnitude before, but did a great job.”

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www.turf.com
**BRIEFS**

**MASON NAMED GM AT DPC CLERMONT**

ORLANDO, Fla.—Tom Mason has been named general manager of Diamond Players Club Clermont, a semi-private, 18-hole course that will open soon on the second-highest point in Florida, 20 minutes from Orlando. Diamond Players Club, which operates Sweetwater Country Club and Wekiva Golf Club, also in the Orlando area, is headed by Arizona Diamondbacks pitcher Todd Stottlemyre. Mason, a Class A PGA pro and a member of the first class to graduate from the Golf Professional Training Program in San Francisco in 1996, will be responsible for all operations, including regular golf, tournaments and special events, clubhouse facilities and membership programs.

**DESMOND NAMED GM AT SC RESORT**

NORTH MYRTLE BEACH, S.C.—Daniel Desmond has been named general manager of Barefoot Resort, an $812-million, 18-hole golf and oceanfront property in Myrtle Beach. Co-sponsorship by the National Golf Foundation and the Continuing Education Department at Oglebay, the program is designed for course owners/operators and other key personnel interested in finding solutions to common problems while also sharpening their business management skills. Now in its 17th year, the program annually attracts more than 200 registrants. During the five-day program, participants will have the opportunity to learn from and confer with experts on all aspects of golf facility management. Among the areas covered will be golf shop operations; new player development; course renovation, re-at Oglebay, the program is designed for course owners/operators and other key personnel interested in finding solutions to common problems while also sharpening their business management skills. Now in its 17th year, the program annually attracts more than 200 registrants. During the five-day program, participants will have the opportunity to learn from and confer with experts on all aspects of golf facility management. Among the areas covered will be golf shop operations; new player development; course renovation, rede-car economics; rule management and tournament play. The program is also responsible for creating an arrival statement and the components which make guests feel they have truly arrived.

**FINCH TO HEAD FLA. OWNERS’ GROUP**

FT. LAUDERDALE, Fla.—Ray Finch III, president and partner of Emerald Dunes Golf Group in West Palm Beach, Fla., was named president of the Florida Golf Course Owners Association (FGCOA) during the Florida State Conference. Finch replaces Bill Stine, chief operating officer of Meadowbrook Golf Group, who has completed his two-year term as president. Stine will take over as president of the National Golf Course Owners Association in January. The FGCOA has 136 members representing more than 200 courses.

**Institute of Golf Management scheduled for early January**

JUPITER, Fla.—The National Institute of Golf Management is accepting registrations for its 2000 golf course management seminar Jan. 9-15 at Oglebay Resort and Conference Center in Wheeling, W.Va. Co-sponsored by the National Golf Foundation and the Continuing Education Department at Oglebay, the program is designed for course owners/operators and other key personnel interested in finding solutions to common problems while also sharpening their business management skills. Now in its 17th year, the program annually attracts more than 200 registrants. During the five-day program, participants will have the opportunity to learn from and confer with experts on all aspects of golf facility management. Among the areas covered will be golf shop operations; new player development; course renovation, redesign and maintenance; cost-control systems; food, beverage and range operations; personnel and customer relations; publicity and promotions; golf car economics; rule management and tournament play.

**GDSI purchases So. Florida golf course**

ORLANDO, Fla.—Golf Development Services Inc. (GDSI) has purchased the golf course at Magnolia Plantation in Lake Mary. GDSI will also manage the course. Magnolia Plantation is a 496-lot residential complex being developed by Centex Homes. The semi-private, par-72, 18-hole course was designed by Dave Harman and constructed by Golf Course Consultants, Inc. The course is expected to open October 2000. Headquartered in Orlando, GDSI provides professional management services to public, municipal, daily-fee, semi-private and resort facilities with expertise in operations management; marketing; advertising and public relations; membership; merchandising; agronomy; employee selection; recruitment and training; food and beverage services; and tournament planning and sports event management.

Since 1994, GDSI has managed The Prestige Club, a summer golf membership program in the Central Florida area. GDSI is also responsible for all national golf advertising for the PGA Tour Radio.

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**An arrival statement sets the proper tone**

**Editor’s note:** This is the second of a three-part series on managing the process of creating and nurturing a golf course’s visual image, signage, course details and printed graphics.

By FORREST RICHARDSON

Ask most people when and where a round of golf begins and you’re bound to hear, "at the prescribed starting time" and "on the first tee." This is far from reality. A round of golf is much more than a simple appointment at a single location. Rather, it’s an unfolding story. A round of golf can actually begin weeks in advance of the tee time. And, just as the days leading up to a long-awaited concert might produce anxiety and anticipation, so, too, can an upcoming tee time. Add to this all of the moments which occur just prior to hitting the first drive of the day, and you have the "prelude." As it relates to the course, and those who need to be concerned with its image and presentation, this "prelude" is one of the most essential aspects of golf course image. It may be more important than the logo or course symbol itself. I have visited many courses where neither the name nor logo was especially good, but the experience driving through the gates and eventually finding my way to the first tee was tremendous.

In the first part of this series, I provided several thoughts on developing course names, images and how those elements can be put to efficient and memorable use. These decisions — name, image and overall feel — are intertwined with creating an arrival statement. In this installment, we will focus on the arrival statement and the components which make guests feel they have truly arrived.

Unlike name and visual image, which most golfers have been exposed to before they arrive, the arrival statement can be compt---

Continued on page 37

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A DESERT SANCTUARY

Workers lay sod at the Sanctuary Golf Course at Westworld, SunCor Resort and Golf/Management's new 18-hole, daily-fee golf club in Scottsdale, Ariz., scheduled to open Nov. 11. "Sanctuary is the very first Audubon International Signature golf course in the Valley of the Sun," said SunCor Vice President Tom Patrick. The 18-hole course was designed by architect Randy Hochenkemper and built within the city limits and the Bureau of Reclamation's storm water retention area. "Sanctuary has done an excellent job of integrating the golf course with the environment," said Mike Smart, director of the Department of Environmental Planning of the Audubon International Institute. "One feature of the golf course has incorporated that is beneficial to the entire area is on-site recharge wells that re-purify the runoff water from the golf course and return it to the ground, replenishing the area's natural water source."
CHICAGO — The National Golf Course Owners Association (NGCOA) has teamed with CNA UniSource, a Professional Employer Organization (PEO), to make available administrative expertise and employee benefit options in a program designed exclusively for NGCOA members. “This program is responsive to the employment-related issues that our golf course owners are now routinely facing,” said Mike Hughes, executive director of NGCOA. “By making these services available, we can assist our members in transferring the burden of administration and allow them to re-focus their energies on growing their businesses.”

Under a co-employment arrangement, CNA UniSource assumes responsibility for many of the administrative functions that course managers are accountable for today. The program’s base product provides payroll administration, workers’ compensation, and human resource services. It also makes available a wide array of optional benefits products, including group health and dental coverage, short- and long-term disability, group long-term care and group life, health care and dependent care reimbursement, pre-paid legal services and retirement plans. “Keeping up with employment-related requirements and other administrative responsibilities has become a full-time job in itself,” said Dan Cacchione, senior vice president of marketing. “With CNA UniSource, golf course owners will be better able to dedicate their time to serving customers and managing their core business. At the same time, 16,000 employers under contract, CNA UniSource may be able to offer employee services and benefit structures to the golf course owner that might otherwise not be available, or would be individually available only at a higher price.”

CNA UniSource services will be available to all NGCOA members with 10 or more employees and who have administrative responsibilities for human resources and personnel activities. Members will decide individually if they will take advantage of the program. The countrywide launch began in September, with an initial focus on Florida, Texas, and Arizona. The independent insurance agency of Grandy, Pratt, McCoy, Rosenberg & Associates of West Des Moines, Iowa, will handle the marketing and consulting capacity for the program.

NGCOA members can access this program through any CNA UniSource-licensed agent or by contacting a local CNA UniSource office, located in most major cities.

SURF-SIDE UK facilities growing quickly

SURREY, England — American Golf (UK) Ltd. has acquired Oak Park Golf Club in Surrey on a 25-year operating agreement and lease bringing to 19 the number of properties operated by American Golf in the United Kingdom.

Oak Park, founded in 1984 as a par-3 facility, was expanded in 1985 and 1993 to its current 27 holes. Situated in the village of Coundall, three miles west of Farnham, the main 18-hole, par-70 Woodland course measures 6,318 yards while the 9-hole, par-36 Village course is 3,379 yards. The other facilities include a 16-bay driving range with specialist teaching bays, practice bunkers and chipping and putting greens. The location fits in well with existing American Golf (UK) operated clubs in Surrey, Hampshire and Berkshire to include Pyrford Golf Club, Milford Golf Club, Blue Mountain Golf Center, Cams Hall Estate Golf Club and Paulions Golf Center.

Oak Park is the fifth acquisition by American Golf (UK) Ltd. this year and follows the acquisition of Abbotsgley Golf Club and Hotel at the end of July. The company also just opened a new Peter Alliss-designed course called Traditions Golf Course, which is situated in Pyrford between Woking and Weybridge.
a lasting memory to guest or potential member. For an existing member or repeat player, the image of the first tee and its treatment will bring back memories of previous rounds. People need starting points.

Creating an arrival

The first step to developing a positive arrival statement is to write a script. For an existing course, it is necessary to write two scripts. The first is an honest script indicating what is there today. The second articulates what the arrival could — and should — become. Should is an important distinction, for it is not usually wise to attempt to write a script for an arrival that will be grossly different from the course itself. The best advice is to be honest and capitalize on what makes the course distinctive. Every course has something distinctive. This is what needs to be

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Texas/Mountain States, Steve Sparks 775-832-4447 • Southeast/Midwest, Debbie Suppa 770-643-7788.
Troon hires Glasco as Western U.S. chief

Scottsdale, Ariz.—Troon Golf has appointed Bruce Glasco Western regional assistant vice president to oversee day-to-day operations of Troon facilities in the Western United States. Glasco will also oversee the transition of all properties, as well as be responsible for recruiting facility managers for the company. Glasco moves to Troon Golf after nearly three years with Hines Development Company Inc. A former PGA golf professional, Glasco served as assistant project manager at the River Valley Ranch development in Carbondale, Colo. Prior to that, he was director of golf at Maroon Creek in Aspen, Colo.

In anticipation of future growth, Troon Golf made the decision to divide the company's operational responsibilities into two regions: Eastern and Western.

NGF conference

Continued from page 35

The institute offers three seminar programs that run concurrently. There's one for those registrants attending for the first time and another for those returning for their second year. The third is for individuals who've completed the first two. This program is open also to those who, although they may be attending for the first time, meet certain requirements by virtue of their current professional standing and work experience.

All attendees receive five continuing education units (CEUs) from North Carolina State University. In addition, PGA of America members earn three recertification credits for each seminar. Golf Course Superintendents Association of America members receive 1.9 CEUs toward recertification.

Presenters include speakers from the USGA, PGA of America, American Golf Corporation, and the NGF as well as course owners and operators, developers, and golf product manufacturers.

The $460 registration fee includes instructional materials.

For further information, visit the NGF web site at www.ngf.org, or contact the Department of Continuing Education at Oglebay Resort and Conference Center at 800-624-6988, ext. 4019.
**SUPPLÌ« BUSINESS**

**BRIEFS**

**AgriBioTech launches new wholesale business unit**

*By Andrew Overbeck*

SALEM, Ore.—AgriBioTech’s integration efforts continue to take shape with the formation of Independent Seeds as the company’s new turf, forage and international wholesale business unit.


“This business unit will have a separate and distinct product line that will be marketed through existing wholesale distribution channels,” said John Zajac, director of Independent Seeds.

“We will fully represent all the warm- and cool-season turf varieties in one location and through one sales representative.”

By combining these 13 companies, Independent Seeds offers a broad line of high-performance turfgrass varieties. “If you take the companies that used to exist and replace them with the Independent Seeds name, we are very well represented in the top grouping of many of the current turfgrass trials,” said Zajac.

The new company will also allow Independent Seeds to delve into many diverse projects. “We will spend more time looking at the less-important and more-obscure grasses that could be developed to serve niche markets that are now not being invested in,” said Zajac.

Another facet of Independent Seeds’ business will be handling the international activities for ABT. “We will be making a more concerted effort to serve the

Continued on page 40

**SIMONINI JOINS SYNCROFLO**

NORCROSS, Ga.—James A. Simonini has taken on the role of market development manager for SyncroFlo’s Golf & Irrigation Division. Simonini will be responsible for developing national and international sales and for expanding SyncroFlo’s existing sales and service networks.

Simonini has extensive experience in consumer goods and business-to-business sales and marketing management.

**RAIN BIRD ADDS LAMBERT**

AZUSA, Calif.—Rain Bird’s Golf Division has announced the addition of Tim Lambert to the sales department as a regional sales manager. Overseeing Rain Bird’s golf business in the Northwestern region, Lambert will focus on building relationships with distributors and seeking opportunities in new course construction and renovation.

**HUNTER NAMES FRANCO, CARTER**

SAN MARCOS, Calif.—Legacy by Hunter, the golf irrigation division of Hunter Industries, has named two new Western regional sales managers. Tom Franco, based in Fresno, is district sales manager for the western states and Steve Carter, based in Lake-wood, Colo., is district sales manager for the Rocky Mountain/Central areas.

As part of their responsibilities, Carter and Franco will work with golf course irrigation specifiers, including golf course architects, irrigation consultants, management companies and installation contractors.

**TEXTRON ROLLS OUT NEW RANSOMES E-PLEX II ELECTRIC GREENS MOWER**

Textron Turf Care and Specialty Products offers the Ransomes E-Plex II electric greens mower. Designed to boost mowing productivity and performance, the E-Plex II’s quiet, pollution-free operation makes it ideal for courses that are near residential developments. Equipped with a 12-volt electric motor, the E-Plex II draws its energy from eight 6-volt batteries and can operate up to three hours on one full charge. Since it has no hydraulic system, oil, air filters, spark plugs, radiator or ignition components maintenance is kept to a minimum. Total cutting width of the Ransomes E-Plex II is 62 inches. To optimize mower performance, a programmable hand-held service tool provides convenient diagnostic checks of the electrical system.

**NEW PRODUCT OF THE MONTH**

**Landmark to handle Scotts distribution**

*By Andrew Overbeck*

MARYSVILLE, Ohio — In a move to increase its seed business, the Scotts Co. has reached an exclusive distribution agreement with Spokane, Wash.-based Landmark Seed Co. Scotts, which has sold seed direct for the last 35 years, will now be utilizing an extensive distribution network to move its seed products.

Under the new arrangement, Scotts will grow, supply and market seed, and Landmark will be responsible for sales, invoicing and distribution. The financial terms of the agreement were not disclosed.

According to Wayne Horman, director of national accounts and the marketing manager for seed, the distribution changes are the first step in making Scotts more of a seed company.

“We have really been a fertilizer company that sold seed. We did not operate and said ‘Okay, you’re on your own,’” said Horman.

Citing technologically advanced varieties like Round-Up ready bentgrass and bluegrass, Horman said it was time that Scotts seed stood on its own and gained an

Continued on page 40

Flowtronex PSI acquires Mikotech

DALLAS — Flowtronex PSI has strengthened its direct service capabilities to courses in the Southern California and Nevada markets by acquiring River- side, Calif.-based Mikotech.

Mikotech’s seven service technicians stationed in southern California and Las Vegas will remain with Flowtronex PSI as its Western Service Group, with plans to increase the total service staff to 12. The acquisition includes a 10,000-square-foot office complex-warehouse located in River- side to serve Flowtronex PSI customers in the Los An- geles-Orange County, Palm Springs and Las Vegas areas. Mikotech has been a certified Flownet service provider since 1993. The acquisition is part of PSI’s ongoing effort to devote more technical and resources to offering local factory direct service to customers,” said Flowtronex PSI General Manager Tom Male.

Mikotech’s founder, Mike Skidgel, will continue to manage day-to-day operations and maintain responsibility for his existing service territories. “I envision better, more efficient and more timely customer service with the additional resources at our disposal,” said Skidgel.

Mikotech is the second such acquisition in a year. Last August, Flowtronex upped its presence Kentucky, Tennessee and the Carolinas by acquiring the Rich-Embry Co.

**Golf Course News STOCK REPORT (9/15)**

**ACQUISITIONS**

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* — DATA PROVIDED BY THE VALUE TREND LINKS

**Stock Report**

**Continued on page 40**
Toro announces strong third-quarter earnings

BLOOMINGTON, Minn. — The Toro Company reported a strong third quarter ended July 30, due to growth in its professional businesses and improved results from last year's profit improvement initiatives.

Net sales for the quarter were $325.3 million compared to $291.0 million for the third quarter last year, an increase of 11.8 percent. Year-to-date net sales were $1.01 billion compared to $880.7 million for the same period last year, an increase of 14.6 percent.

"We are realizing the benefits of our profit improvement program and our intensified focus on asset management. Moreover, our improved performance also allows us to pursue a greater number of strategic investments for a stronger future earnings capability," said Kendrick B. Melrose, chairman and CEO of Toro.

Scotts/Landmark

Continued from page 39

identity.

"We asked ourselves: 'Can we continue to do business the same way?' Probably, we could have kept things the same and continued to grow incrementally every year," said Horman. "But we work in times where small growth is not good enough. We had to change and go in a different direction." Scotts and Landmark have pulled together an experienced sales team, with the addition of Don Woodall from Burlington Seeds/ABT and Ray Brubakken and Orlin Reinhold, who all have established relationships with distributors. So far, Scotts has 20 distributors across the country. Distributors will now send orders through Landmark, which will ship the seed throughout the country and handle the billing and accounting.

According to Horman, the new operation will be smoother, eliminating many of the headaches that plagued his territory managers and distribution system in the past.

"What we did in the past was store seed at seven different locations around the country," said Horman. "But we would put things in the wrong warehouse and have delivery or back-order problems. This agreement helps us get away from that. There will now be a distributor in the area that has the seed that the customers need.

Landmark's expertise in handling complex distribution systems will allow Scotts to improve delivery timeliness, offer more services to its customers and better serve regional demands.

"With regional distributors, we will have a better idea of what the customer wants. If there is a greater demand for a product in Michigan, we can do that now. We can gear up and meet demands in a specific state or region very well," said Horman.

The company's 30 territory managers will continue to promote Scotts seed as before, but they will be promoting the regional distributor and the services they offer. "It allows them to push seed, but not have to deal with getting it there," said Horman.

Independent

Continued from page 39

global marketplaces," said Zajac. "With more proprietary and common varieties at our disposal, we will have a more defined international program."

Independent Seeds will be involved in contract production and production licensing agreements internationally as well as research and development internationally at existing facilities in Europe, South America, Asia and Eastern Europe.

Zajac is still working to integrate the 13 companies, a process that began in July. "We are now in a difficult period of trying to cope with the late harvest and make some of these changes," said Zajac. "It will take the majority of the fall to get going smoothly, but we will be in tune by spring."

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New formulations from Nature Safe

Nature Safe natural and organic fertilizers introduce two new formulations, 20-1-5 and 13-0-11 with Polyon, designed to bring Nature Safe’s nutritional and environmental benefits to every part of the golf course. The new blends combine organic nutrition and fertility efficiency of Nature Safe with the 100-percent controlled release and sustained slow-release nitrogen of Polyon’s patented, reactive layer coating process. The 20-1-5 emphasizes cost-effective fairway, tees and rough application opportunities, while the 13-0-11 formulation also provides a quality 1:1 ratio product ideal for markets that restrict phosphate applications. Additionally, they are available in course and fine grades, allowing them to respond to fairways with reduced mowing heights and tighter turf canopies.

Curlex offers erosion protection

For long-term protection against erosion when erosion control blankets and vegetation alone are not sufficient, the American Excelsior Co. introduces its Curlex Enforcer bio-composite reinforcement matting. American Excelsior’s Enforcer combines the permanence of two layers of heavy-duty synthetic netting with the company’s unique Curlex aspen excelsior fiber to form a three-dimensional matrix. This stitched composite provides the benefits of long-term erosion protection, in addition to providing the ideal micro-climate for seed germination and the establishment of vegetation.

Jacklin introduces hardy Triplet fescue

Triplet, a new turf-type tall fescue blend from Jacklin Seed/ Simplot Turf & Horticulture, has genetic characteristics that make it ideal for high-traffic areas. A semi-open canopy helps Triplet stand up to drought, heat and close mowing. Additionally, it helps improve its resistance to such diseases as brown patch and net blotch. Dense and medium-textured, each variety in the Triplet blend has been selected for its improved genetic characteristics and has met standards higher than certified seed.

Ariens introduces the Sno-Brush

The Ariens Company introduces the newest innovation in snow-removal equipment, the Sno-Brush. The Sno-Brush is designed to handle everything from clearing away several inches of snow to brushing off fluffy snowfalls or light snow dustings. The Sno-Brush has been specially designed for use on many different type of surfaces including cobblestone or bumpy paths and brick sidewalks. The flexible bristles conform to the surface and rotate to clear three-foot-wide paths. The three-way brush allows snow to be swept straight ahead, or to a 20-degree angle to the right or left.

A reliable 9-hp Tecumseh OHV Snow King engine provides the power behind the Sno-Brush, and differential lock-out wheels offer dual-wheel drive in heavy snow or single-wheel drive for easy maneuverability.

Your golfers and grounds crew deserve the very best. And that’s exactly what they’ll get with the Jacobsen® LF family of fairway mowers. Whether you’re preparing for a major tournament or daily golf, Jacobsen fairway mowers deliver a carpet-like finish for your golfers with the most advanced cutting reels in the industry. And your crew will love the smooth ride, advanced controls, easy servicing and reliable performance that put other mowers to shame. With a patented turf conditioner and our exclusive FlashAttach® mounting system, Jacobsen is the only name you need to know.

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Cub Cadet's 4x4 eases snow removal

Cub Cadet introduces the new 4x4 Snow Thrower with an exclusive 4-wheel drive system. The Cub Cadet 4x4 features a Regency OHV engine and includes fingertip-controlled power steering, heated hand grips and single-handed operation that frees the left hand to operate the 4x4's electric chute rotation.

CIRCLE # 211

Terracare's terrators ease snow removal

Terracare Products Co. introduces the new 4x4 Snow Thrower with an exclusive 4-wheel drive system. The Cub Cadet 4x4 features a Regency OHV engine and includes fingertip-controlled power steering, heated hand grips and single-handed operation that frees the left hand to operate the 4x4's electric chute rotation.

CIRCLE # 212

Terrators from Terracare

Terracare Products Co. introduces the terrators, T60 and T-36 aerators. Both models are equipped with 12 times per-disc. T-36 has ten discs and T-60 has 16, allowing for deeper penetration with less weight and reduced maintenance cost. The aerating width of T-36 is 36 inches and the aerating width of T-60 is 60 inches.

CIRCLE #212

Shred it and forget it with Royer's 120

Royer Industries' shredder-mixer Model 120 turns otherwise useless debris fill material into valuable top dressings while accumulating unwanted rubble into a separately controlled trash pile. When the shredders are used in conjunction with the Royer Model 42 power screener, the final product is a super fine, trash-free top soil which is ideal for most turfgrass growing and maintenance applications. All models are easily transportable and can handle almost any soil type.

CIRCLE #213

Gravely's new Z-machines

Gravely announces two new Z-machines, the 250Z and the 270Z, to its zero-turn product line. The 250Z is a zero-maintenance machine with features such as maintenance-free XL spindles that are guaranteed not to need greasing or replacement for two years and stay-sharp tungsten-carbide coated blades that are designed to stay sharp longer.

The Gravely Air-Flo 5-inch deck has been designed to allow maximum airflow through an innovative cutting chamber and 21-inch-wide discharge tunnel. A hydraulic deck height control changes the deck height between one and five inches while 360-degree pivoting anti-scalp rollers prevent turf scalping in any direction.

The Gravely 250Z features a 20-hp Briggs and Stratton Vanguard engine and will mow at speeds up to 9 mph. The top of the line Z-machine, the 270Z, features a 20-hp Yanmar liquid-cooled diesel engine and 50, 60- or 72-inch Air-Flo deck.

CIRCLE # 214

More uses for Fungo

The Scotts Company announces a new use for its Fungo 50 and Fungo Flo sprayable fungicides. Usage instructions have been added for the disease gray leaf spot on turf. Thiophanate-methyl, the active ingredient in Fungo 50 and Fungo Flo, has been shown to be an effective treatment for this disease.

CIRCLE # 215

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CIRCLE #132
Golf Course Classifieds

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Ph: 480-951-4086; Fax: 480-951-4081

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