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GREEN-RELEAF®

WHAT THEY'RE SAYING

Some superintendents suggest that industry associations unite and establish an accreditation program to regulate management companies. Those willing to follow a set of standards and guidelines for accreditation would be endorsed by the associations. Do you agree?

"What's the point? For a great superintendent, life in a management company is preferable to life in the private club community. In a management company structure, [the person's] job performance is evaluated by professional peers as opposed to the green chairman's wife. Our superintendents are not slaves and indentured servants."

— Mike Heacock, vice president of agronomy/director of maintenance, American Golf Corp.

"The idea of regulation of golf course management companies has absolutely no merit whatsoever. The livelihoods of superintendents, owners and other golf course employees depends on how much value they bring to a company and on the normal supply and demand of employment."

— Mike Hughes, executive director, National Golf Course Owners Association

"Management companies are the wave of the future. Eventually, mom-and-pop courses aren't going to be able to compete. Will there still be mom-and-pop owners? Sure, but most of them are going to seek cover, either under a brand name or a management company."

— Tom Schlick, director of agronomy and grounds operations, Marriott Golf

"There needs to be some protections in place for existing employees at the clubs that are being taken over by management companies.

— Max Bowden, CGCS, Cleveland CC, Shelby, N.C.

"I work for a management company now, and I worked for another management company in the past. There are pros and cons of management companies. However, there are pros and cons of working for a single owner. I think some management companies would go for the accreditation just for looks, and others would elect not to try for it."

— Steve Cronin, superintendent, Pinecrest GC, Holliston, Mass.

"The accreditation program would be a good idea, except I don't believe most management companies would sign on. What benefit would they get from the extra requirements set by this program? I'm sure that pay scale would be part of the program because most management companies pay less than the average golf course or country club. The endorsement by the associations is a big benefit."

— Bob Tillema, CGCS, Sherwood Forest GC

"It would be nice to see an accreditation program, but are management companies willing to abide by it? They'll do what they want. This is America."

— Dennis Petruzzelli, CGCS, Lakeover National GC, Bedford Hill, NY

"You can't do it legally. You can't have somebody looking over them. It sounds good, but the courts would eat you alive."

- Dave Fearis, president, GCSAA

Yea

Continued from page 19

Hiring a company like IGM certainly makes it easier for the owners/operators to budget for their maintenance program. The person knows up-front the costs for the year. Unpredictable factors, such as weather, illness and equipment failure, that can shred budgets into waste paper, don't come into play because of the fixed maintenance fee.

A golf course maintenance company like IGM will turn maintenance into nearly an exact science, often saving the owner/operator money. Everybody wins, including golfers, who can play well-maintained courses at rates that aren't driven higher by unmanaged maintenance costs.

Companies like ours can help turn maintenance into a more exact



science, often saving owner/operators money and producing better playing conditions. We can also provide our team members with great support, better benefits and an opportunity to grow. Under these circumstances, everybody wins — including the superintendent and our profession as a whole.

Greg Plotner is vice president of Florida operations for Lakeland, Fla.-based International Golf Maintenance.

Nay

Continued from page 20

for the villains because they refuse to challenge the unethical practices of these rogue management companies. Maybe it's because they fear the loss of membership dollars or legal action, or they simply feel there's nothing that can be done.

The GCSAA, the USGA, the PGA and the CMAA could get together and regulate the business of management companies to an extent by setting up an accreditation program. Any management company that's willing to follow a set of standards and guidelines for accreditation would be endorsed by these associations. It would be a huge advantage for a company to be endorsed by the governing bodies of the industry. If I were a course owner, I would be more in-

clined to hire a company that was backed by the industry than one that said it could do the job cheaper.

Past superintendents worked relentlessly to raise the standards of our profession. Unless today's industry professionals do something to slow the current trend, we will all have horror stories to tell.



Mike Hamilton, CGCS, is superintendent at Foxfire CC in Naples, Fla.

Shades Of Green

OPINION

f you want controversy, let's talk about management companies. In today's tight job market, nothing can polarize superintendents like discussing them. What's all the fuss about? It starts with progressives jumping on the bandwagon, and traditionalists crying foul.

But it boils down to change. Corporate thinking has permeated the golf courses of America: mergers and acquisitions, downsizing, team building, consolidation, diversification, empowerment, taking risks, thinking out of the box and changing the paradigm. That makes the golf course industry fertile ground for management companies.

But let's put all of this hullabaloo in perspective. I asked an executive of a national management company what percentage of U.S. courses were owned or operated by management companies. His guesstimate was 10 percent — about 1,600 of the nation's estimated 16,000 courses, according to my calculations.

The executive said only 50 percent of the remaining courses might fit into a management company's profile. I know that doesn't ease the pain for superintendents and golf pros who have lost jobs and vendors who have lost accounts. Loyalty in corporate America is only skin deep, and only people with thick skins survive.

Lawsuits, environmental rules, OSHA regulations, wage and hour laws and competition with the club down the street are making lax golf course operations obsolete. Many golf clubs need to be more structured and run like businesses to compete. A strong, savvy club can stay independent and profitable, but reality suggests that those kind of dreamers and doers are the minority.

Given the right set of circumstances, management companies are simply a sign of the changing times. They are large and small and come in all flavors. Some keep to the high road by building good reputations and are decent companies to work for. Others take the low road to quick profits, and people get hurt in the process.

People talk about how these companies solicit new clients, but I often get calls from companies offering me the chance to switch my long-distance carrier, insurance services and brokerage services. It's called competition — and yes, it's fierce.

The Good, the Bad And the Reality

BY JOEL JACKSON



YOU CAN BADMOUTH
MANAGEMENT
COMPANIES IF YOU
WANT, BUT DON'T
PAINT THEM ALL
WITH THE
SAME BRUSH

It might make life easier if some of our golf associations pulled together to track or rate management companies, similar to what the Better Business Bureau does. Then, shady operators or companies that get lots of performance complaints could be identified.

But remember: Superintendents never have guaranteed jobs, no matter who their employers are. I've known more superintendents fired by their clubs than by management companies. These dismissals range from personality clashes, club politics, course conditions and poor communications to near-sighted, cost-cutting measures. Trying to figure out superintendent job changes is like choosing between doors No. 1, 2 and 3. You don't always know the facts.

Management company superintendents commonly note several pros and cons. While they cite loss of autonomy in making decisions as the biggest drawback, they like the secure feeling of belonging to a larger organization.

Mandatory paperwork and meetings may be aggravating to some, but others like the fact that there's more continuity and written standards than operating under an ever-changing greens committee or an eccentric owner.

Loners and maverick personalities find it hard to merge into team player roles with several layers of management. Others like the fact that they have backup support and built-in resources.

Then there are those superintendents who never got support from their clubs for continuing education and professional associations. Most reputable management companies promote education and participation.

I call it a coin toss. You can badmouth management companies if you want, but don't paint them all with the same brush.

Joel Jackson, CGCS, retired from Disney's golf division in 1997 and is now director of communications for the Florida GCSA.

TRUE COLORS

TEXT BY WILLIAM R. CHANEY, PROFESSOR OF TREE PHYSIOLOGY/PURDUE UNIVERSITY

Autumn
lore has it
that Jack Frost
decorates trees
in red, yellow
and purple hues.
But science tells
another story.







utumn
leaf colors seem divinely inspired. In truth, the geographic distribution, the physics of light and color, the plant pigments, the internal structure of leaves and the weather conditions create the palette.

Few locales in the world combine the tree species and climactic conditions necessary for vivid fall foliage. Fortunately, the United States and Canada teem with many such places, including some urban landscapes where exotic species and the development of cultivars expand fall foliage's reach.





THE CLASSIC AT MADDENS RESORT, MINNESOTA/KEN MAY, ROLLING GREENS PHOTOGRAPHY

TRUE COLORS



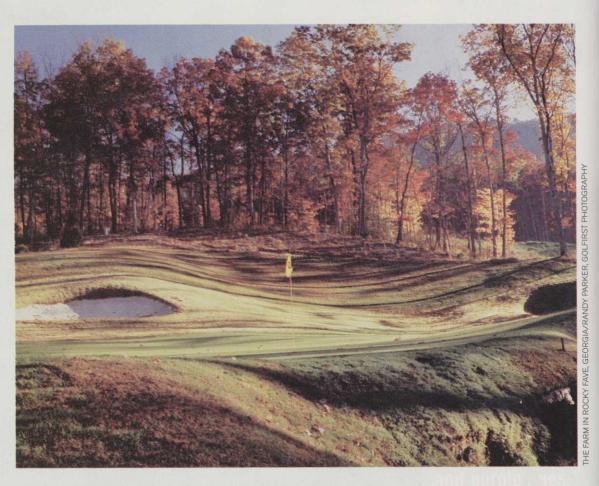
Sunlight, mixing with leaves' natural pigments, explains the assortment of colors. During spring and summer, leaves serve as the main area for photosynthesis, which provides the trees food and gives leaves their green color. As autumn days shorten and temperatures cool, however, photosynthesis declines. As a result, the green disappears to unveil enchanting colors.

In addition to chlorophyll, leaves also contain yellow or orange carotenoid pigments. For most of the year, chlorophyll masks them. When stripped of the chlorophyll in the fall, the yellows and golds of sycamore, birch and other tree species burst on to the scene.



New England states are known for their spectacular fall colors. The maritime climate in the Northeast moderates the temperature, reducing the severe frost that could kill or injure leaves before pigments reach their apex.

Warm sunny days, followed by cool nights with temperatures below 45 F - but above freezing - often lead to a bright, red autumn.





GLEN ELLEN CC, MASSACHUSETTS/MIKE KLEMME, GOLFOTO



GPS systems give you an eye in the sky

With help from above, you may soon be able to manage your golf course from your computer. You'll be able to oversee the location of equipment operators in real time and closely regulate the application of water, fertilizers and pesticides.

Welcome to the world of turf management via satellite.

Companies including John Deere, ProShot, ParView and ProLink are offering golf course information-management systems that utilize the Global Positioning System, a government network of 24 satellites orbiting the earth which track the location of moving objects on the ground. These products also feature interactive, computer-based maps of golf courses created from Geographic Information System software.

About 200 golf courses are currently using the technology to attract more business (as in golfers) and improve club operations. But suppliers say their space-age systems will also help superintendents better manage their golf courses, from treating turf to overseeing labor.

GPS was originally designed by the U.S. Department of Defense for military use, but is open to public access. Radio signals are sent from satellites to earth, where GPS receivers collect and convert the signals into latitude, longitude and altitude. GPS is used for navigation worldwide in airplanes, boats and cars.

"I have no doubt this technology will take off with superintendents," says Dana Lonn, the Toro Co.'s director of advanced turf technology. Toro is a a strategic partner of ProShot Golf and a GPS/GIS system manufacturer.

While superintendents aren't currently demanding the technology, Lonn says they'll want it when they realize it can assist them in dealing with environmental issues, labor productivity and cost control. John Deere maintains that its SkyLinks system will help superintendents generate management reports that track and measure real-time performance data on every vehicle and every employee to assure optimal efficiency.

The technology has Steve Dorer excited about the possibilities of satellite golf course management. The superintendent at Methodist GC in Fayetteville, N.C., predicts the popularity of GPS/GIS will escalate because more superintendents are discovering the benefits of such progressive technology.

Good for business

Suppliers are currently pushing the technology on the sticks-and-balls side. Nate Yoder, vice president of marketing for Sarasota, Flabased ParView, says its Course Management System helps make the game more fun for golfers.

Golf courses such as The Legends, a 54-hole course in Myrtle Beach, S.C., are finding the technology is good for business. The Legends encounters a whopping 800 golfers

daily — all under the watchful eye of John Deere's SkyLinks, which the course implemented about two years ago. Golfers enjoy SkyLinks because their cars are equipped with laptop computer-like screens that provide them with a synopsis of each hole, yardages and other features. Golf shop personnel like SkyLinks because they can monitor golf cars to better manage the pace of play.

"The system has helped us maximize our

golf course," says Tim Jackson, golf pro at The Legends.

Jackson says more golfers are coming to The Legends because they've heard about the cars equipped with the cool electronic gadgets. Since they can use the gadgets to track yardages and survey hole layouts for potential trouble rather than fussing around the course searching yardage markers and scrutinizing shot angles they're getting off the course in less

time. That means

more rounds are being played and more cash is coming in.

Jeff Levine, regional manager for Arnold Palmer Golf Management's three Texas golf courses, says ParView's GPS system has pared 25 minutes from average rounds at Tour 18 Dallas, Tour 18 Houston, and The Golf Club at Castle Hills.

Golf shop personnel can also monitor bottlenecks on the course through SkyLinks. If Joe Slow is delaying other golfers with his plodding play, the golf shop can send him a polite message to tell him to pick up the pace.

The competition for golfers is getting fierce, with rounds not keeping up with the

number of courses being built. Companies are marketing GPS/GIS technology as a means for golf courses to differentiate themselves from the competition. That's one reason why Birmingham, Ala.-based Sunbelt Golf Corp. opted to implement ProShot Golf in all of its golf and beverage cars at its eight facilities.

"We want to stay on the leading edge of where the industry is headed," says Russell

Redford, Sunbelt's vice president of operations.

I spy?

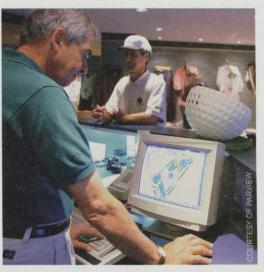
Managers can also utilize the technology to monitor car location and transmit messages to golfers if they drive carts on greens or wander into restricted areas. Superintendents can use the technology to play Big Brother by busting any workers who are sleeping on the job when they're supposed to be fertilizing the fairways.

But the Orwellian aspect of GPS causes concern. While Yoder

claims that superintendents say they are interested in ParView's Course Management System for its Big Brother capabilities, others say they wouldn't use it as a live surveillance camera. That includes Dorer, who says that would be an "intimidation tactic."

But Lonn points out that superintendents can use GPS/GIS to log and replay data. That way, superintendents can monitor workers' efficiency by tracking where they have been and what they have done.

Dorer says he would use the system for that reason, which would be more constructive than spying. If he discovered a Continued on page 30



If Joe Slow is delaying others with his plodding play, the golf shop can send him a message to tell him to pick up the pace.

Far Out

Continued from page 29

worker needed to spray the greens faster, he would offer him tips on how to do so.

It may be several years before the technology is popular among superintendents, Lonn predicts. It's in its early stages of development, and it's capabilities are still being evaluated. Lonn says the technology is part of Toro's precision turfgrass management program within the advanced research group.

According to Toro, future applications of precision turf management will enable superintendents to equip sprayers with electronic controls and utilize GPS to detect and shut off its boons if it has entered a no-spray zone. Superintendents will also be able to

record and monitor pest infestation areas on hand-held computers by using GPS.

Dorer says such applications "would streamline things and make superintendents more efficient." But he doesn't plan on purchasing a system anytime soon. Cost is a concern.

GPS products are seen as high-cost items because they're seen as high-tech wonders. Lonn says about 100 ProShot Golf systems are in operation at U.S. courses. He says most systems are leased, and course owners charge about \$3 extra in green fees to pay for them. But Redford notes that courses charging \$30 a round may have more of a difficult time explaining a \$3 increase to golfers than a course

Continued on page 32



City, where Weibring/Golf Resources created master plans for major renovations, with Rodgers designing a new irrigation system.

Before construction, Rodgers converted the paper architectural drawings to digital format and integrated them into AutoCAD. Eric Weiskopf, Rodgers' GPS technician, then mapped the existing course, including property lines and old irrigation components.

"We overlaid the digitized master plan on the GPS map in AutoCAD to make minor scaling corrections to the blueprint," Rodgers says. "Once the plan fit perfectly in the course boundaries, we drew in the irrigation design."

By making scaling corrections before construction, they reduced potential for change orders. Creating the precise irrigation design ahead of time enabled the irrigation contractor to begin work while general construction was still under way, minimizing course closure.

Golf Resources has begun introducing GPS maps for use in daily operations at courses it manages, including the Bridlewood Course in Flowermound, Texas. Managers there use Rodgers' GPS map to calculate surface areas of course features to more accurately plan budgets for fertilizers and other chemical applications.

Cheaper, Via Satellite

There has been much hoopla about speeding play and increasing revenues by installing satellite-based Global Positioning System receivers on golf cars. Less known, however, are the potentially significant cost savings as a result of integrating GPS into construction projects on new or existing courses. Cost overruns associated with change orders can be avoided by digitally mapping course features before, during and after construction.

Larry Rodgers Design Group in Lakewood, Colo., was among the first to incorporate GPS mapping in irrigation system design. But the firm has expanded GPS use into many phases of course construction. Rodgers has developed numerous GPS applications in joint projects with D.A. Weibring/Golf Resources Group, a Dallas-based consulting firm specializing in course design and operation. Both groups have learned that construction is completed much closer to budget when designs are drawn with GPS.

"GPS gives owners a higher comfort level with the money being spent on big projects," says Don Armstrong, a Weibring/Golf Resources partner.

When construction is finished, GPS maps remain with a course's superintendent to serve as a precise as-built course survey. The maps become key to daily operations through integration with computer-controlled irrigation units or car-tracking course management systems.

Larry Rodgers, owner of the design group, invested \$50,000 to purchase a precise GPS system, including backpack-mounted Trimble

GPS receiver with mapping software and Fujitsu Pentop field computer. He also bought a differential correction unit to refine the accuracy of GPS positions to less than a meter.

"Real-time GPS makes our field work more efficient," he says. "We actually make the map on the computer screen while we walk the course. This lets us anticipate and correct errors before they happen."

In preparation for an irrigation design, Rodgers' technicians map locations and perimeters of features — tees, greens, fairways, cart paths, bunkers and trees — with GPS. For new builds, they go on site to map planned features as the construction crew stakes them.

Making the GPS map is straightforward. With the receiver on his back, the technician accesses a menu on the computer and chooses from a list of features to map, such as green or fairway. The computer keeps track of what each feature is and maps locations on screen as the technician walks. The digital files are sent via e-mail to Rodgers' office in Colorado, where the points are re-created into a course map on the computer.

"I plot the precise location of where every main line, lateral pipe, tap, valve and sprinkler head will go right on the GPS map," Rodgers says.

Once the installation is complete, the technician returns with the GPS and maps the asbuilt location of components. This map is left with the superintendent.

During collaborations on several projects with Weibring/Golf Resources, Rodgers employed GPS in other phases of construction. One such project is Quail Creek in Oklahoma