like big box retailers such as Macy's and Nordstrom. These stores always stay in touch with their customers, either with a catalog, note or letter. We try to personalize our service the same way so we can stay fresh in the consumers' minds as often as possible."

The staff has different methods to obtain information from customers while they’re making tee-time reservations or just before they tee off.

“We employ a starter, and one of his responsibilities during the normal course of talking about the course and the expectations of the course is asking the golfers where they’re from and collecting zip codes so we can employ marketing strategies throughout the year,” Christenson says.

They keep the information in a database and organize it by demographics. They can then send personalized marketing items to each group.

Christenson suggests courses reward loyal golfers with special deals or with a tournament after the course closes for the season. "Make the core group of players feel special," he says.

Christenson also finds Circling Raven’s partnerships to be a valuable marketing tool. The club pooled some of its marketing dollars together with the nearby Coeur d'Alene Resort, home of the floating green, to promote both courses. Benefits are offered to those who play both courses or stay at one of the resorts.

The fact the course has received several accolades also doesn’t hinder business. It has earned best-of-acclaim from Golf, Golfweek and Golf Digest magazines, and its operations, customer service and merchandising also have been recognized.

Still, Christenson believes it's up to the staff to make sure golfers return.

"Overall, we try to be creative and use target marketing so we can measure it," he says. "Otherwise, we’re just spinning our wheels and hoping.” – Heather Wood

Empire starts management services division

The timing was ideal for the creation of Empire Golf Management Services, a new division of Empire Golf Management, says Don Carpenter, the division's director. The division will focus on third-party management services, acquisitions and leasing, as well as selective consulting services.

"The reality is that there continued on page 15
After looking at our line of irrigation products, the PGA TOUR didn’t raise any red flags.

Only this one.
With the 23 Tournament Player properties they own and operate, the PGA TOUR naturally wants their courses to be in the best condition possible. And after using John Deere maintenance equipment for ten years, they were ready to take a look at what John Deere Golf Irrigation could do for them. Suffice to say, they were pleased with what they saw. Innovative, state of the art controllers, rotors, and accessories combined with legendary John Deere quality and service. To see what John Deere Golf Irrigation can do for your course, call your local John Deere distributor or 1-800-537-8233 today.
Wherever you need disease control, you need DISARM®.

University trials prove that DISARM® Fungicide provides unsurpassed strobilurin disease control. And because it's priced at a more affordable cost per acre than competitive strobilurins, you can apply DISARM on fairways and greens throughout your entire golf course. Used alone or in combination with other non-strobilurin fungicides, DISARM controls all major turfgrass diseases, including brown patch, zoysia patch, summer patch, gray leaf spot, anthracnose and pythium. Plus, it is the only strobilurin labeled for control of light-to-moderate infestations of dollar spot. To learn more, contact Arysta LifeScience North America Support Services at 1-866-761-9397 or visit www.arystalifescience.us/disarm.

Always read and follow label directions. DISARM is a registered trademark of Arysta LifeScience North America Corporation. The "Protection From Tee To Cup” slogan is a trademark of ArystaLifeScience North America Corporation. The Arysta LifeScience logo is a registered trademark of Arysta LifeScience Corporation. © 2007 Arysta LifeScience North America Corporation. DSM-063
continued from page 11

are an awful lot of golf courses and clubs that have been struggling for a few years," Carpenter says. "That has happened for a variety of reasons – overbuilding, the economy and the fact that not as many people are joining clubs or playing golf. And some clubs have been undermanaged as well. Clubs are looking for help and that can come in a number of different ways, from an outright purchase to managing or some kind of joint venture."

Pomona, N.Y.-based Empire Golf Management, which is a subsidiary of Bergstol Enterprises, owns and operates nine championship golf courses in New York, New Jersey and Florida, including Pine Hill Golf Club in N.J. and The Links at Madison Green in Royal Palm Beach, Fla.

“Our clubs enjoy a certain reputation in the industry because we have a formula that works,” says Eric Bergstol, owner of Empire Golf Management. “We stress conditioning, service and efficient operations and that pays dividends. Now we’re working with other clients to expand our reach and philosophy.”

Carpenter was formerly Empire Golf’s director of operations. His experience includes a stint as vice president of management services for American Golf Corp. and chief operations officer for National Fairways. He believes the experience Empire’s executives have in the golf industry is a plus.

“Eric Bergstol has designed, built and managed great and successful golf courses, as well as clubhouses, so his company knows the business from start to finish,” Carpenter says. "Those on our staff have strong backgrounds in the golf and business world. We’ve run everything from low-end clubs and courses right up to Bayonne Golf Club (a recently opened, premier Empire Golf property in New Jersey).

Empire Golf Management Services can be successful in a competitive field already populated with high-profile management companies such as Billy Casper Golf, KemperSports, Arnold Palmer Golf, Troon Golf and American Golf, Carpenter says.

“One of the things Empire brings to the table is the ability to be a full-service company,” he says. “Eric has 11 golf courses under his belt, and we can provide anything a client might demand, whether that’s conducting a feasibility study about whether or not a client should build a golf course, to hiring an architect and actually building the course and clubhouse. We feel there’s a niche for us in the marketplace.”

Empire Golf Management Services is in negotiations with a half dozen potential clients.

“We’re in this to find ways to help make struggling clubs financially viable,” Carpenter says. – John Torsiello

> For more information about Empire Golf Management Services or Empire Golf Management, visit www.empiregolfmanagement.com or call 877-425-8269.
Water ways

A simple, daily irrigation maintenance routine can help save 2 to 3 percent of a golf course's annual irrigation water usage, says Shawn Emerson, director of agronomy at Desert Mountain Community, a group of six courses in Scottsdale, Ariz. That might seem insignificant, but it adds up, especially when combined with other practices. Regular system checks can save a course at least 10 percent of its irrigation water usage throughout a year, Emerson says.

A simple task many superintendents aren’t doing is checking daily pump-station water output numbers with irrigation computer readings, Emerson says. If the amount of water that came through the pump station in a day is greater than the amount the computer ordered, the maintenance staff knows water is wasted.

“Things change,” he says. “The computer is working right, but over time, nozzles wear out, so the amount of water coming out can change.”

If the numbers are off, this tells the crew nozzles likely need to be fixed or replaced.

Emerson, who says he has been performing this routine for 10 years at different courses, estimates he’s saved 15 to 20 percent of total irrigation water usage each year during his career. This was achieved not just by comparing pump station and computer numbers, but also with other regular system checks and, when necessary, maintenance.

Emerson’s crew has a few other irrigation maintenance practices it follows. One of these is deficit irrigation. Emerson monitors the evapotranspiration rate on the course, which tells him how much water was lost from the plant. By monitoring, he figured out he only needs to put a percentage of the water lost back into the plant to maintain it at a healthy level. He usually replaces anywhere from 60 to 90 percent of the water lost in the plant.

Each turf variety has a different tolerance level for this practice, so superintendents will need to determine what percentage of water replacement is too low for that particular plant’s threshold, Emerson says.

Another conservation tool is a standard irrigation system checkup.

“We have people who go out in the field and run the sprinklers at the holes for two minutes on each sprinkler to make sure everything is operating correctly,” he says, adding that each designated irrigation crew member checks three or four holes each week.

The crew members make sure there are no leaks in the system. Also, if a sprinkler isn’t turning

---

**Golf Car/ Electric Vehicle Batteries**

Exide Technologies brings premium performance and day-in, day-out durability with our complete line of golf car batteries. These batteries use the most advanced technology to increase life and reduce maintenance time. And we back our power and performance with the industry's best nationwide warranty program.

Go with Champion Batteries – known for quality and dependability for more than 100 years.

For more information contact your local E-Z-GO Distributor or Exide at 1-800-START-IT
properly, it can mean one area is getting too much water and another area isn’t getting enough. The problem could be something as simple as a rock stuck in a nozzle, causing a nonuniform distribution pattern.

“It’s simple stuff, basic generic stuff,” Emerson says. “The hard part is to create a routine to do it.”

While many superintendents might think they’re understaffed and can’t add another item to the crew’s maintenance schedule, it can be beneficial to take the time, Emerson says. Catching and correcting irrigation inconsistencies reduces water consumption, which also reduces the water bill. An efficient irrigation system can reduce a course’s electric bill. Catching problems early also can reduce costly turf issues.

“Instead of being reactive with it by waiting to see signs with the turf, we send people out to catch problems with watering before they arise, not after,” Emerson says. “It’s no different than taking care of your car. There are maintenance schedules that need to be done on a routine basis to make sure there are no problems.”

Besides, it can take only a few minutes a day – or about an hour each week – to check the system. Emerson recommends checking a few holes each day. It takes about 10 minutes to check the pump-station numbers with the irrigation computer numbers.

Emerson admits he has more resources at his fingertips than a smaller public course would, but says the task is important enough for courses of any size to do.

Regular irrigation system checks can save as much as 10 percent of a course’s irrigation water usage, says Shawn Emerson. Photo: Shane Link, Dreamstime.com

Are your bunkers suffering from the adverse effects of time? Are rocks, silts, and clays beginning to build up causing your bunkers to look, function, and play like concrete?

Courses all over the world rely on the Sand Storm by ZScreen LLC. for all their bunker maintenance needs. The Sand Storm cleans and “recycles” your sand right in the bunker, utilizing a 12 volt vibratory motor, saving you time and money. Say goodbye to the short term repair method of “removing and replacing” your bunker sand, and say hello to a more cost effective, long term solution.

www.golfcourseindustry.com/readerservice - #19
"I've worked at smaller golf courses, and (regular irrigation checkups) are part of the assignment," he says. 
It's even more crucial for superintendents with a limited budget or water supply to make sure their systems are running properly to avoid extra costs. 
"Obviously, the more you can check, the sooner you can solve any problems," Emerson says. - HW

Counter
caterpillar care

Destructive turf caterpillars usually go unnoticed on golf courses until damage is noticeable. This was the message David Shetlar, Ph.D., entomologist at the Ohio State University Extension, shared at a recent Ohio Turfgrass Foundation regional seminar. 
"They're always sliding under the radar until they build significant populations, and then superintendents say, 'What was that?'” Shetlar says.

The most common varieties of turf caterpillars in Shetlar's region include black cutworm, fall and yellow armyworm, common armyworm and true sod webworms. Black cutworms and fall armyworms can't survive Ohio winters, so they generally spend that time in the Gulf Coast states. It's common for the insects to be picked up in a storm as a moth and eventually land in northern states from Iowa to Ohio.

The first generation of black cutworm matures in late May or early June. They

Turf caterpillars slide under the radar until they build significant populations, says David Shetlar, Ph.D.
typically lay their eggs on the tips of grass blades and then go back into the turf. It would seem like the eggs would be removed when the turf is cut, but the eggs have been known to survive, and if the clippings are dispensed nearby, the insect remains nearby, Shetlar says. Then, in mid- to late July, the second generation emerges. At the same time, the second generation of armyworm generally emerges, followed by its third generation in August.


Aerifying during the summer months isn’t advised if an infestation is known or probable, Shetlar says.

“You’re just making ready-made burrows,” he says.

Pock marks in the turf in late August and September are a sign that fall armyworms are feasting on the turf, Shetlar says. A black cutworm or fall armyworm infestation usually can be identified by twin pock marks in the turf. The insect burrows a hole in the soil, leaves its waste and burrows back out of the soil, creating a second hole. Another sign of an infestation is a trail through the turf that can be seen in the morning dew.

“During the third and fourth instars, they will leave the nursery and wander,” Shetlar says.

The insects can move from 50 to 90 feet at a time and generally travel every three to five days, he adds. Because of this behavior, Shetlar recommends spraying insecticide outside the perimeter of tees and greens at least one or two boom widths to catch the worms that wander.

Armyworms are attracted to light, which often leads them gravitate to turf that’s on the edge of a parking lot with lights that remain on during the night. Another place to look for the insect is post markers, flags and signs because they’re known to lay eggs on those surfaces.

Another way to determine if there’s a cutworm infestation is to flush an area of turf for larvae. Mix one tablespoon of Joy, Dawn Ultra or Ivory clear dishwashing detergent per gallon of water for a solution. Use two gallons for every square yard area of turf.

If there’s a cutworm infestation, the larvae will surface within three to five minutes. If insects surface after a half hour, they’re likely to be sod webworm larvae. – HW