

to recycle water on courses he designs, including the Canyons Course at TPC San Antonio, scheduled to open in January.

Part of Dye's motivation in reusing and storing water is economic. As an example, he points to the fact that his design at the French Lick (Ind.) Resort didn't have to pump water up a steep hill into its holding pond this past season because the above-average rainfall and recycled irrigation water kept it at an adequate level. Other courses where he has incorporated reusing water to reduce irrigation output experienced the same economic benefit.

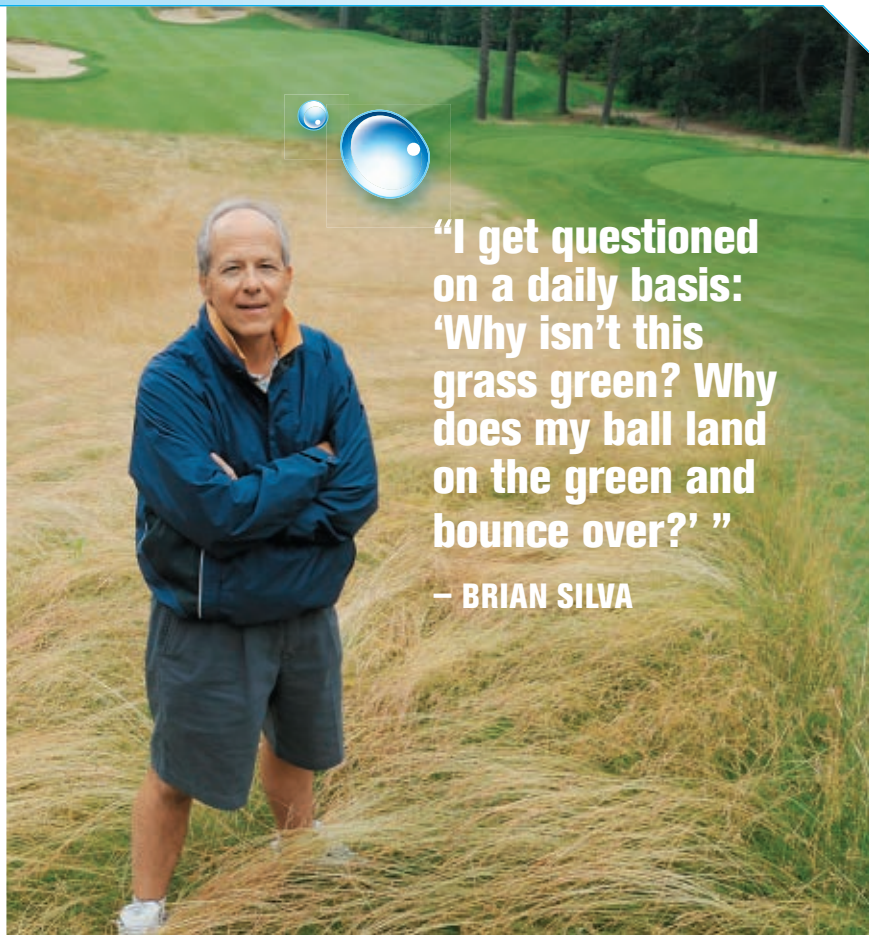
Dye is also proud of the Kampen Course at Purdue University in West Lafayette, Ind., where there was five years of constant monitoring of water coming into and leaving the property. Runoff from homes, gas stations and a nearby interstate that made its way onto the Kampen property had a water quality grade between two and four, depending on the time of year. After making its way through man-made marshes, holding ponds and the irrigation system on the course, it left the site rated with a grade much higher, between six and nine.

Where education and an appreciation of the environment don't work to convince owners and golfers to adjust their thinking, the current economic state might.

"It would be great in this difficult economic period if good things came from it," Silva says. "Maybe it will be that club members and golfers reconsider the levels of maintenance they expect."

A golf course that Silva renovated two years ago recently contacted him seeking his advice in its efforts to decrease water usage—and therefore expense—by 10 percent.

But Hurdzan says getting private facilities to change their maintenance regime in most cases is most always a



"I get questioned on a daily basis: 'Why isn't this grass green? Why does my ball land on the green and bounce over?'"

— BRIAN SILVA

battle. Other architects agree.

"When you go to an existing course or club, you have 300 people who know more about golf course architecture than you do," Hurdzan says.

Silva believes it's imperative for clubs and courses to develop a statement of purpose for course maintenance to guide future decision makers and give superintendents clear directions.

"I think it's been difficult for some clubs to follow up on the firmer and faster goals," Silva says. "The committee a superintendent works with one year is not the same committee three years later, and it's difficult to maintain continuity."

Silva puts the onus on the club to make sure superintendents know what conditions are sought and if the goal changes.

One way superintendents can help the cause is to convince their clubs to install soil sensors in greens, Silva

says, adding they provide a remarkably accurate measure of subsurface moisture and are an effective way to help reduce water usage. The science can be used to inform golfers that while the greens might not be as soft as they once were, the correct amount of water is being applied.

"Most people don't know how dry they can get their soil," Silva says.

The industry, with the assistance of architects and others, is improving the way it treats water. For instance, Silva says more clubs than ever have maintenance mission statements. "I never heard of that 10 years ago," he says.

Fought also sees an improvement in water conservation.


"Golf is doing a much better job," he says. "Change is afoot." ■

Pioppi is contributing editor to Golfdom. He can be reached at apioppi@earthlink.net.

Act Now

10 EASY THINGS YOU CAN DO TO
CONSERVE WATER ON YOUR GOLF COURSE
— *IMMEDIATELY*

BY CHRISTOPHER S. GRAY SR.,
CONTRIBUTING EDITOR



Gray is always thinking about conserving water.

WATER CONSERVATION seems to be getting a lot of attention. I, for one, say it's about bloody time! Perhaps the stark realization of the enormous obstacles our industry is facing when it comes to both the quantity and the quality of available water for golf courses is finally hitting home. With less water out there for consumption, reducing the amounts we need to sustain our golf courses is quickly becoming a top priority around the country.

The benefits of conserving water go well beyond just saving actual amounts of water. There are multiple trickle-down effects that go along with water-conservation programs, ranging from sharply reduced labor costs to significantly decreased energy use. And whether you're a superintendent at a high-end private course or a low-end public course, everyone uses water and will need to find ways to lower the amounts used on golf courses.

With that in mind, here are some simple and inexpensive things you can do now to help conserve water on your golf course.

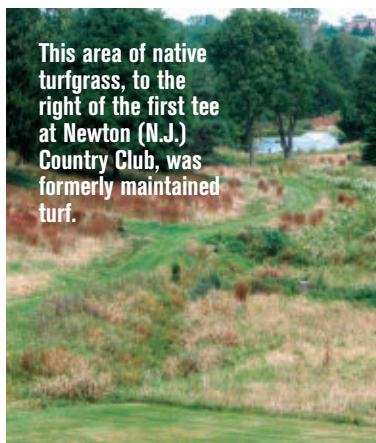


No. 1 Check Your Nozzles

Irrigation nozzles wear down over time, and most of us have likely not inspected them regularly . . . or ever. These nozzles are also the key to the distance the head ultimately throws the water, which probably hasn't been measured since its initial installation. In many situations, replacing worn nozzles and making sure the proper nozzles are being used will save massive amounts of water.

No. 2 Reduce Your Turf Areas

Simple logic here — reduce your maintained turf and you also reduce the amount of water needed to maintain that area. Not exactly rocket science, but I think you get the point. Convert an out-of-normal play area to a naturalized area and there's no need to irrigate it beyond establishment. What constitutes an out-of-normal-play area may vary depending on which golfer you ask.



No. 4 Change Irrigation Risers

Quite often, full-circle risers are throwing water in areas that really don't need any. Heads that run near the golf course perimeters are particularly guilty of this. By investigating these areas, you can see if you're accidentally irrigating the parking lot or nearby pond. A quick change-out with a part-circle riser will correct this water waster.

No. 3 Maintain Your Irrigation System

We all get irrigation weepers at times. We all, however, don't always fix them right away. We should. Proper maintenance is absolutely critical to water conservation. The potential to waste large amounts of water is greatest from irrigation systems that aren't repaired and maintained. Put simply: If it's broke, fix it.

Continued on page 54

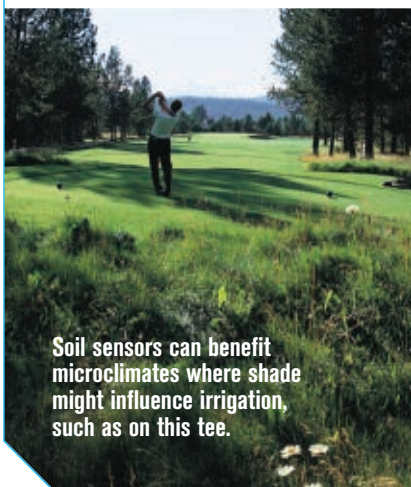
Continued from page 53

No. 5 Use Wetting Agents

No brainer. Using wetting agents will better distribute the water in the soil profile, keeping it from going dry. The biggest benefit of utilizing them on the greens is helping eliminate the costly need for hand-watering. That alone makes them ultra-valuable in your water-conservation program.

No. 7 Install Moisture Sensors

Moisture sensors are awesome technology that are just scratching the surface of their potential for golf course management. By receiving readouts from the sensors in the soil profile, you can make irrigation adjustments based on what's actually going on down there. While still in its infancy, soil-sensor technology is the wave of the future for golf course water management. But until competitive pricing make it more readily available for the 85 percent of golf courses still suffering from our economic downturn, see No. 8.



Soil sensors can benefit microclimates where shade might influence irrigation, such as on this tee.



No. 6 Increase Your Height of Cut

Think back to Turf 101 class, and you'll recall that taller grasses use less water than shorter grasses. It's all about leaf tissue. Sometimes making a small adjustment in your height of cut can yield huge water savings in your irrigation programs. I'm not even talking about your green height, which would likely never happen anyway. Fairways and rough are the largest areas where you can easily save water by slightly increasing the height.

No. 8 Harvest Rain and Runoff Water

With water supplies drying up quicker than capital expenditure budgets, we need to capitalize on the water Mother Nature sometimes sends us. While this may sound overly ambitious to many of us, often times it's simply a matter of rerouting or installing a few pipes to redirect the water to make it go where we want it to go. The key to success in harvesting lies in making gravity work for us, not against us.

No. 9 Use Soil Probes

Admittedly much less technologically advanced than No. 7, these easy-to-use, yet helpful tools have been around for years, supplying superintendents with the art behind the science aspect of moisture analysis. Every superintendent's maintenance cart should include one of these.

No. 10 Educate Your Golfers

Communication is always good, and with water conservation, it's one of the best tools you have at your disposal. Keeping your golfers informed about your course's water situation can proactively help you with any potential problems that might arise. By including them in your conservation activities, you will likely be gaining an ally in your continued fight. ■

See the future of
golf course irrigation at
www.rainbird.com/ICS



Simplifying irrigation to
get straight to the point.

That's intelligent.



Introducing the NEW Rain Bird® IC™ System, a revolutionary control platform that directly links your rotors to your central control. Our innovative Integrated Control Technology™ uses up to 90% less wire and 50% fewer splices, while eliminating satellite controllers and decoders and saving precious water. It's also more peace of mind, simpler installation and reduced maintenance. Now that's The Intelligent Use of Water.™

RAIN  **BIRD**®

ADD UP THE SAVINGS WITH AQUATROLS!

-50%

Save 20% - 50% on water —
find out how!

Pre-Emergent Herbicides + Dispatch® = Better Weed Control

Insecticides + Dispatch® = Better Results with Lower Rates

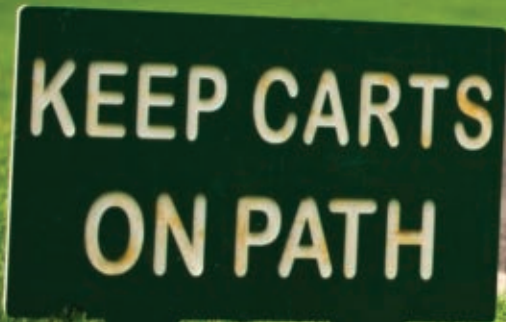
Fungicides + Revolution® = Best Defense Against Disease

Fertilizer + Dispatch® = Increased Nitrogen Efficiency

Save Money • Reduce Waste • Keep Turf Healthy

University research and superintendent use show that Aquatrols products save water, reduce waste and keep turf healthy.

Ask your Aquatrols distributor representative about our “Dollars & Sense” series or follow the link below to find out how Aquatrols can help you conserve water and stretch your budget further.



KEEP CARTS
ON PATH



Want to learn more? The G-FORCE is ready to answer your questions.
Visit clubcar.com/guardiansvc or call 800-CLUBCAR, ext. 4782.

Yeah, that'll work.

Fleet Managers know that keeping the course in top condition is no easy task. But sometimes golfers follow their shots a bit too closely.

Not with Guardian SVC from Club Car. You can manage where a golfer can and cannot go—all from the comfort of a PC.



G U A R D I A N | S V C



A Two-Pronged Growth Approach

The First Tee aims to grow the game *and* grow the character of its participants

BY LARRY AYLWARD,
EDITOR IN CHIEF

Ten-year-old Jason Kopco already plays a fine golf game for a kid. So why did he join The First Tee of Cleveland, an organization that teaches youths how to play golf?

“The First Tee of Cleveland is like the Boy Scouts for golf because it teaches you all the life skills needed to be successful, like honesty and trust,” says his father, Ron. “That’s important to us.”

The First Tee of Cleveland, like its Chicago-based parent organization The First Tee, teaches golf to youngsters to help grow the game with new players. But the organization also teaches children about the character traits needed to help them grow into upstanding citizens.

Jason thanks The First Tee of Cleveland for helping him become a more



ILLUSTRATION BY: ISTOCK INTERNATIONAL INC.



patient person and player. And while Ron is happy his son is learning life skills that will help Jason now and later, he's also happy the boy, who has been playing since he was 3, can hone his golf skills while with the program.

"It's a win-win situation," Ron says.

The First Tee, with more than 200 chapters nationwide, says in its mission statement that it aims "to impact the lives of young people by providing learning facilities and educational programs that promote character development and life-enhancing values through the game of golf."

The World Golf Foundation created The First Tee as a way to bring golf to youngsters who otherwise would not be exposed to the game. The formation of The First Tee was announced on Nov. 13, 1997, at an event in New York's Central Park. Earl Woods, Tiger Woods' late father, helped spur the program, which also was created to make affordable and accessible golf facilities throughout the country for kids to learn the game.

Another goal of The First Tee is to make golf more ethnically diverse. The PGA Tour, the United States Golf Association, the PGA of America and the LPGA committed big bucks to fund the organization.

Since 1997, The First Tee has altered its mission slightly and added more programs focused on teaching children about positive character traits. Doris Evans, executive director of the Cleveland chapter, thought the early organization was too focused on only teaching the game. Evans didn't think the industry needed another junior golf program.

But shortly into its existence, the

organization introduced The First Tee Life Skills Experience, through which participants learn lessons about the importance of maintaining a positive attitude, how to make decisions by thinking about the possible consequences, and how to define and set goals from the golf course to everyday life. The lessons are taught through golf-related activities.

The organization also established its Nine Core Values, including honesty, integrity, sportsmanship, respect, confidence, responsibility, perseverance, courtesy and judgment. The Nine Core Values are incorporated into the learn-

ing experience and their meanings taught to the kids. In addition, they're used to name golf holes at several of The First Tee facilities.

When the national organization implemented those programs, Evans was sold on beginning a chapter in Cleveland, which was formed in 1999 and recently celebrated its 10th anniversary.

"We really have to make it clear we're a positive youth education program," Evans says. "We use golf as a context, but we're about education."

But Evans would like to see kids keep playing golf after they leave the program.

"I love golf," she says. "I think it's important kids develop a skill with their bodies. It may as well be golf."

Joe Louis Barrow, CEO of The First Tee, shares Evans' sentiments. It's obvious Barrow, who joined The First Tee in 2000, cares deeply about growing the game with younger players and growing their character because he can talk about each component randomly. Ask him if The First Tee has helped grow

Continued on page 60

"We really have to make it clear we're a positive youth education program."

- DORIS EVANS,
THE FIRST TEE OF
CLEVELAND

What was that?

Warm, sunny day.
Pristine putting surface.
Perfect for a golfer!
(But not his golf car.)

Guardian SVC from Club Car helps you manage where a golfer can and cannot go—all from the comfort of a PC.



GUARDIAN | SVC



Want to learn more?

Contact the G-Force at gforce@clubcar.com

or call 800-CLUBCAR, ext. 4782.

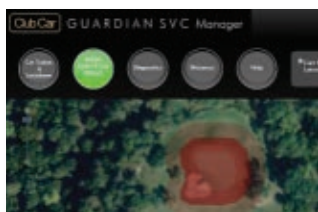


Growing the Game [PART 4]

Now on the tee...

The 90-degree rule doesn't apply everywhere. But try to tell this guy.

A Club Car fleet equipped with the Guardian SVC system will help you control your golf cars before, during and after the round, all from the comfort of your PC.



GUARDIAN | SVC

Club Car



Want to learn more?

Contact the G-Force at gforce@clubcar.com

or call 800-CLUBCAR, ext. 4782.

Continued from page 59 the game with new players, and he'll rattle off statistics ingrained in his brain. Barrow says a study by The First Tee reveals 75 percent of the kids who joined the organization but are no longer involved with it are still playing golf.

"Most people are surprised and absolutely flabbergasted with our retention rates," Barrow says, noting The First Tee had about 10,000 participants when he joined and now has nearly 3 million. "We want them to continue to play golf. And we want golf to be a lifelong interest for them."

Barrow says 35 percent to 40 percent of the kids who join the organization's initial program, essentially a clinic, move into The First Tee's core program. "I would put up those numbers against any other program in the game of golf," he says.

Barrow points to a study by the National Golf Foundation that people spend almost twice as much on the game (green fees, equipment) if they learn the game through a formal program, such as The First Tee, rather than on their own.

The First Tee is a major economic



"Most people are surprised and absolutely flabbergasted with our retention rates."

— JOE LOUIS BARROW, CEO, THE FIRST TEE

engine that produces anywhere from \$10 million (conservative estimation) to \$30 million (liberal estimation) of revenue a year, Barrow contends.

"If you take our numbers, you can see we're a major economic engine," he says.

Barrow also believes the organization's Life Skills Experience and Nine Core Values are vital to help youth set goals, manage their emotions and gain confidence in themselves. He has several stories of how the organization has helped youths improve their lives.

Barrow talks about an inner-city African-American young man named Adam Adams,

who's studying mechanical engineering in college but had no future aspirations of going to college prior to joining The First Tee of Chicago.

"His goal in life now is to change the functions of the internal combustion engine to use different fuel, no fuel or significantly reduced fuel," Barrow says. "Before joining The First Tee, he didn't know where his life was going."

"We also have young people from California who say they would be in

[ABOUT THIS SERIES] "Growing the Game" is *Golfdom's* quarterly series – now in its fourth year – that focuses on how the golf industry can attract more players to generate more rounds. In addition to this installment on The First Tee and its impact on the game, we've also explored the impact women, minorities, disabled golfers and baby boomers can have on increasing play. We've also talked to golf course architects about ways they can make the game more friendly, and we've highlighted creative marketing programs used to attract new golfers. The next installment of the series appears in February. **Visit our archives at www.golfdom.com to view the "Growing the Game" series.**

Series sponsored by:

