



Ropes, stakes and signs are staples in the arsenal of tools to control damage from cart traffic. Photo by Joel Jackson

chance for good root growth to survive the busy winter season.

The only other recourse seems to be erecting and moving portable barriers of all shapes and designs to keep changing traffic patterns to distribute wear of the turf. Generally these are directional signs, moveable stakes (wooden, metal or plastic) and rope; vertical posts and horizontal barriers. While the message is clear, “Don’t drive here!” somehow these portable barriers often get knocked down or moved by golfers in the course of the day and have to be set up again and again. Of course they have to be moved anyhow to relieve the latest worn “path” since golfers can’t seem to vary where they get off the path on their own.

The search for rustic and attractive barriers is one of the challenges for superintendents as they strive to keep the course looking natural and attractive and not like a safety zone at a manufacturing plant. Much of the challenge could be avoided if golfers would take a more active role in distributing their travel about the golf course, but the herding instinct is too great to overcome.

Traffic Control — Defending the Turf

By Joel Jackson, CGCS

There are three major components to traffic control on a golf course, and two of them are beyond a superintendent’s control so you’re behind the eight-ball before you even get started. Those two factors are course design and the golfers themselves.

Greens and tees with narrow, confined entry and exit points concentrate foot traffic, creating “goat trails.” They offer very little in the way of options for the superintendent to maintain healthy turf in those areas except continuous aeration and re-sodding. Golfers aren’t thinking turf damage when they drive golf carts through obviously low, wet areas one after the other in sheep-like fashion, following the tracks in the dew ahead or they hang tires off the path on curves and at tee and green stops, creating chuck holes and bare spots.

I would be remiss if I didn’t also hide maintenance personnel who often take the road most traveled as they move about their daily tasks.

I’ve seen my share of maintenance “roads” worn into the turf as routine short cuts are used day after day. A little variety in direction would do wonders to avoid creating these ugly potential weed gardens.

The third component is defense and that is about the only proactive action a superintendent can take and even that often depends solely on the cooperation of the golfers to make it successful. Many maintenance operations spend lots of time and labor on routing traffic and protecting high-wear areas from becoming dirt and/or weed patches.

The most diligent turf managers adopt an aggressive aeration program in these high-traffic areas and perhaps the most diligent program I have come across lately is the one Greg Kriesch has adopted at Heritage Palms down in Ft. Myers. Kriesch says he’d rather wear out aerifiers than his turf along cart paths. He rotates his aerifiers back and forth almost nonstop between his two 18-hole courses during the growing season to give those built-in, necessarily high-traffic areas the best

Meanwhile after hours and hours of moving ropes, signs and barriers, the curve-cutters have still worn out potholes and bare strips along cart paths. To correct these ankle-twisting hazards and unsightly dirt patches, superintendents often pour concrete to straighten out those lovely flowing curves so adored by architects and so blatantly ignored by golf-cart, beverage-cart and maintenance-vehicle drivers. When that doesn’t stop the corner cutters; posts, boulders and cobblestones are implanted to deter the violators.

By the way, it doesn’t matter if the cart path is 4-, 6- or 8-foot wide with flare-outs for passing traffic. There hasn’t been a path designed yet that a driver won’t hang a tire off of to drive on the grass (or dirt).

In responses to an e-mail questionnaire, superintendents Matt Taylor of the Royal Poinciana Club in Naples and Jim Walker at Greynolds Park Golf Club in Miami, Peter Powell at the Boca Greens Golf Club in Boca Raton and Joe Pantaleo at the Indian Creek Club in Miami offered some



Wooden posts and barricades are also used to alter traffic patterns. Photo by Joel Jackson.

comments on who, how and what they do for traffic control on their courses.

Traffic Control Questionnaire

1. Q: Who takes care of the primary traffic control on your course?

A. Taylor: The set-up person has the initial responsibility, but ultimately it falls onto the assistant superintendent to make sure it happens each day

A. Walker: The assistant superintendent and superintendent take care of adjusting traffic-control measures during their daily rounds.

A. Powell: I will make the initial set-up and my two crew members that change the cups and tee markers will maintain and rotate our stakes and ropes.

A. Pantaleo: I take care of the traffic control during my daily inspection of the course.



Sweeping curves in a cart path are very aesthetic looking but drivers cut them short and create worn turf and potholes. Photo by Joel Jackson.

2. Q: How long does it take to take care of moving setting up traffic control measures per day?

A: Taylor: Besides being part of the set-up man's rotation, on a given day we may have three rough units and two fairway units mowing. Each guy may spend an extra half hour moving things around.



Without traffic control golfers tend to all follow the same path to the fairway causing severe wear damage. Photo by Joel Jackson.

A. Walker: It takes two people around two hours per week.

A. Powell: We will spend two manhours per day during the winter season. We have no need for traffic control in the summer.

A. Pantaleo: Maybe two hours total and that's generally once a week.

3. Q: What means of communications (pro shop, permanent course condition signage, special announcements or other tools) are used to aid traffic control?

A. Taylor: We post signs on the first and tenth tees that read: "Cart Path Only", "90 Degrees", "Summer Rules", etc. We also post any special rules in a clear plastic sleeve on the golf carts.

A. Walker: The pro shop staff advises the guests the



To avoid future potholes many courses add pavement to the curves. Photo by Joel Jackson.

cart conditions at check-in and we use directional signs along the paths.

A. Powell: All of the above, but rope is the only really effective way to keep traffic where you want it. Golfers don't think about potential cart damage once they start playing.



Wear from foot traffic can also be a problem when access points to a green are limited. Photo by Joel Jackson.

A. Pantaleo: We paint a white line to direct them away from the green slopes and refresh it once a week.

4. Q: What is your primary traffic-control device (barriers, posts, stake & rope, other)?

A. Taylor: We also use moveable control devices along cart paths. Primarily we use rope stakes, green recycled plastic (of course) stakes with green and white rope. We also use movable (4x4) wooden barricades painted green. The metal spikes that hold them in place often bend on the shallow limestone rock in the soil. In addition, when we place two white balls on the edge of the fairway cut, the members know that they are to return to the path when they see these markers.

A. Walker: We rely on the directional signs and our



A cobblestone treatment is used to encourage carts to stay on the path at Heritage Palms. Photo by Joel Jackson.

course rangers to monitor the traffic flow.

A. Powell: Again all of the above. I have been using short 1-foot-tall stakes to guard cart path curves and turns.

A. Pantaleo: We use directional signs and white lines painted on the turf.



Many courses use permanent signs at the 1st and 10th tees to alert golfers to daily traffic rules and conditions. Photo by Joel Jackson.

5. Q: Under what circumstances do you impose cart path only?

A: Depending on the time of year, if we get a rain shower during the primary play season (winter and spring) and it is close to a major tournament, this will trigger "Cart Path Only" for a day or a few hours. Usually during the summer months after a 2- to 3-inch rain, it is a no-brainer.

A. Walker: Only after a really heavy rain; it isn't that often.

A. Powell: During tournaments that can't be

rescheduled. If it's that wet, we will close the course.

A. Pantaleo: Only if we have standing water visible in the fairways.

6. Q: If you allow carts on turf but with limitations, do you ask them to stay in roughs or fairways? This is not a trick question.

A. Taylor: Neither. It is 90 degree or cart paths and they don't follow the 90-degree rule. One of my standing jokes at Green Committee meetings is asking what their perception of where the 90 degrees is... to the cart path or the green?

A. Walker: We ask them to keep the carts in the roughs.

A. Powell: "Rough Only"

A. Pantaleo: When it's really wet we ask them to stay in the roughs.

7. Q: Do you do extra aerification of high-traffic areas or are they on the same frequency as the rest of the turf (fairways, roughs, walk offs, etc)

A. Taylor: Yes, during the season we will open them up with 3/4-inch tines and fill with sand and 6-2-0, usually in January and then again in early March.

We will also spike them and pitch fork them as needed.

A. Walker: Only during regular seasonal aerifications.

A. Powell: We aerate the cart path ends and drive-off areas once per month during the winter season.

A. Pantaleo: We do two extra aerifications per year in the high-traffic areas.

Bonus: Let us know any unique way you manage high traffic areas — crumb rubber, ceramics, extra top dressing, how much extra aerification, with what? Wetting agents, pre-emergents, anything else?

A. Taylor: Same as above we try to keep these areas loose and growing. We have one really large tournament in mid-March. Three weeks before it happens we go hog wild with rope stakes, traffic control etc. The days of the three-day event we take down all traffic control devices. After the event they go back out. I think it helps before and it certainly looks better during the event.

A. Walker: Sometimes in bad spots we'll dress it up with wood chips. The bottom line is we only have to do traffic control between Thanksgiving and Easter. The rest of the time the turf can keep up with the traffic stress.

A. Powell: No silver bullets. We just keep moving those ropes.

A. Pantaleo: We use solid tines to aerify the traffic areas to minimize any mess or clean up.

There When You Need Us



With Solutions That Work

Cleary's Solutions Programs combine proven products and new, cutting-edge chemistry along with the know-how and experience to help solve your turfgrass disease problems.

For more information about Cleary's **Solutions Programs** contact your local Cleary's Turfgrass Professional.



Count on Cleary

Read and follow all label directions. The Cleary logo, 3336, Spectro and Alude are trademarks of Cleary Chemical Corporation. Endorse is a trademark of Arvesta. Nutri-Grow Magnum is a trademark of Biagro Western Sales, Inc. Visalia, CA. ©2003 Cleary Chemical Corporation.

Super Tip

Beer, Bananas and a Bath: a Deadly Combination

By Darren Davis,

Often in the golf course management profession, when a unique or innovative idea is discovered, word travels fast. Brian Beckner, golf course superintendent at LaPlaya Golf Club in Naples, recently visited me for a little turf talk over lunch. While the topic was not the most appetizing, Beckner excitedly spun a tale of a massive bug slaughter occurring at The Old Collier Golf Club. The most interesting part of the story was that the control agent being used was not a traditional chemical or pesticide; rather it was a combination of beer, bananas, and soapy water!

Beckner's enthusiasm was replicated when I visited the source of the yarn, Todd Draffen, golf course superintendent at the Old Collier Golf Club. Draffen, a graduate of the four-year turf program at Ohio State University, has been employed at the Old Collier Golf Club for four years. He followed his current employer, Tim Hiers, when Hiers made the cross-town move from Colliers Reserve.

On a recent visit to Old Collier, Draffen provided me an education on the "beer, banana and bath" technique aimed at reducing the large population of the predominant flower beetle (*Euphoria sepulcralis*) at Old Collier. The problem is not the adult beetle but rather the grub it produces. While the grub is not harmful to the turfgrass, it burrows in the soil and the turf was being destroyed by armadillos and raccoons digging for them.

Dr. Eileen Buss at the University of Florida identified the flower beetle for Draffen and also gave him the Super Tip on how to reduce the population of the beetle on the property. Her tip was to construct a homemade trap that would capture the beetles when they were active in flight. The foundation of the trap is a one-gal-

lon plastic milk jug. Two of the upper sides of the container are removed to create 4-inch-square openings on two sides of the jug. A paper clip is then used to suspend an empty plastic yogurt cup in the upper half of the milk jug. Once put in use, the yogurt cup is filled with 3-4 ounces of beer and several slices of a very ripe banana. In the bottom of the milk jug, 2-3 inches of soapy water (a bath) is added.

The homemade trap is hung in a tree by rope and is placed in areas known to have a high grub count. When the adult beetles are in flight, which occurs almost year round in South Florida, they are attracted to the container by the sweet banana which they feed upon.

they are so drunk from the beer that they fall into the soapy water and die.

Draffen said he placed 11 traps on the course and, during periods of high adult activity, the traps are refreshed daily. He removed, on average, 300-400 beetles a day from each trap. The downside is that it takes him approximately an hour a day to refresh the traps in peak periods. Consequently, due to time constraints he does not have visions of the traps resulting in complete eradication of the beetle population, but he does see it as a valuable tool in his IPM toolbox to lower the overall numbers and thus reduce the foraging damage by predator animals.

While the Flower Beetle is the primary adult beetle found in the traps at Old Collier, other species of beetles and other insects are also found. When contacted, Dr. Buss concurred with this observation. In fact, she utilizes the beer, banana, bath technique to perform insect surveys when she needs to see what species are flying in a particular area. As to the



Catch and kill flying beetles in this homemade trap and you can eliminate damage from animals digging up your course looking for their hatching grubs in the turf. Photo by Darren Davis.

Simultaneously the beetles consume some of the beer in the same cup. When the beetles try to climb out of this tempting "cup of delicacies"

original source of the story, Brian Beckner, he continues to utilize this innovation on his golf course with very good success.