

Course Consulting Service ON-SITE VISIT REPORT



Hunters Ridge Golf & Country Club Bonita Springs, Florida

Visit Date: January 6, 2014

Present:

Mr. Tony Duncan, Golf Course Superintendent
Mr. Rob Harpster, Director of Golf
Mr. Gary Tinkle, Golf Committee Chairman
Mr. Bruce Davies, Golf Committee Member
Mr. Todd Lowe, USGA Agronomist

United States Golf Association

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USGA Green Section Mission: The USGA Green Section are leaders in developing and disseminating agronomically, environmentally, and economically sustainable management practices. We help golf facilities maintain better playing conditions for better golf through science-based and practical solutions.

As a not-for-profit agency that is free from commercial connections, the USGA Course Consulting Service (CCS) is uniquely able to provide the impartial guidance your facility needs to make informed decisions. Backed by the largest private turfgrass research program in the world and equipped with scientific tools, USGA agronomists are trained to thoroughly identify key issues and offer site specific recommendations. Having no financial interest in any products or services, we operate with autonomy, so that the interests of the individual golf course are our first and only priority.

It was a pleasure visiting Hunters Ridge on behalf of the USGA Green Section. It was mentioned that the topic of greatest concern with golfers has been the condition of the fairways, and several cultural programs were discussed, including topdressing fairways with sand and scalping fairways and roughs each year. Mowing programs and plant growth regulators were also addressed. Agronomic programs on other playing surfaces were addressed during the visit as well, with the most important of these being reducing shade stress from trees and reducing surface elevation of putting green collars. The following report is a summary of the observations and recommendations that were made during the visit. Links to other articles are included in this report and serve as additional resources concerning the topics that were discussed.

GREENS

Observations: The putting greens at Hunters Ridge were in very good condition at the time of my visit. Overall, a healthy and dense canopy was observed and it was mentioned that acceptable playability is provided on a regular basis. Rootzone samples revealed that appropriate agronomic programs are taking place, as the thatch and organic matter was well diluted with sand and a healthy, white and fibrous root system was observed. The only issues that were evident at the time of my visit were elevated collars and shade on #16 green.



Collars: Putting green collars become elevated over time from years of sand topdressing. Additional sand is deposited onto collars from putting green mowers that pick up sand from putting greens and drop it onto the collars when mowers are turned. Additional sand and debris are deposited onto putting green collars following cultivation practices like verticutting and core aeration. Most golf courses do not core aerate collars enough to keep up with sand accumulation and collars simply become elevated over time.

Elevated collars are also referred to as “sand dams”, as they dam up water that normally flows off of a putting green. This causes the green perimeter to remain saturated, thus reducing oxygen uptake and encouraging black layer. Elevated collars can also exert more mechanical stress from perimeter mowing, as the incline forces more down pressure on the inside turn of the mowing unit. Turf thinning and bare areas can result from either stress alone or from a combination of these factors.

I recommend that putting green collar elevation be reduced, so that water flows from putting greens into the adjacent rough area. This can be done through a series of aggressive core aeration practices over several summers, or in less time from collar stripping with a sod cutter (see [Strip ‘Em Bare](#)). I first saw collar stripping a few years ago at Vanderbilt Country Club in Naples but have recommended it to several other facilities since that time. In every instance, I have seen improvement in collar elevation and excellent turf quality in perimeters and collars.

#16 Green: Shade from trees on the right side of #16 green is causing turf thinning along this section of the green. In fact, the entire rough on the back right portion of this area remains thin from shade stress throughout the winter play season. I recommend removing several of the most damaging trees to reduce shade and improve turf quality.



TEES, FAIRWAYS AND ROUGHS

Observations: Overall, I felt like most of the golf course was in very good condition at the time of my visit. In speaking with several course officials, it was mentioned that some comments have been raised concerning the “legginess” of the turf, mud on the ball and achieving better ball roll. Several heavy soil areas and shaded areas were also observed and addressed during the visit as well.

Cultivation: Bermudagrass is a tenacious stem producer and must be aggressively maintained during summer months to provide optimum conditioning for the peak season. These practices are disruptive to play but are a necessary “evil”. Such practices include core aeration, verticutting and scalping. There are no set guidelines on how frequently playing surfaces should be core aerated, but tees and fairways are often aerated two to four times per year while roughs are generally once or twice. Fairways are often verticut once a summer, while tees receive several verticuttings. Again, while there are no set guidelines for these practices, the greater the frequency, the better conditioned the golf course will be for the peak season.

Hunters Ridge is over 25-years old at this time and I believe that the “legginess” that was brought up during the visit is due to a combination of several factors. Over 25-years of organic matter accumulation has provided a dense layer of undiluted organic matter, which provides more cushioning for reel units. I also feel that the mowing regime at Hunters Ridge produces more stem material within the turf canopy at this time. Most golf courses in this region maintain fairways at or below 0.5-inch in summer and begin raising mowing heights to 0.65-inch in late summer to maintain a more cushioned ball lie throughout the winter play season (see [Fairway and Rough Heights Vary by the Season](#)). However, Hunters Ridge maintains fairways at 0.75-inch in summer and at 0.5-inch at this time of year and this creates more biomass within the turf canopy.

Scalping: Many facilities scalp fairways and roughs by aggressively lowering mowing heights below the desired range for a short duration. This removes most of the upper green leaf tissue and exposes the underlying brown stems. A new turf canopy then develops following the scalping process and this greatly improves turfgrass uniformity and consistency. Scalping produces an abundance of debris that must be removed and produces an unsightly character for 7 to 10-days following application. For this reason, I recommend educating golfers on the benefits of scalping beforehand and then to let them know how the playing surfaces will appear for several days following scalping.



Scalping is an excellent practice for bermudagrass fairways and roughs and I recommend that it take place at Hunters Ridge. However, I felt like the fairways were in overall very good condition and that many high-handicap players at other facilities would find the fairways at Hunters Ridge quite desirable. In fact, one of the most important issues that I address at many golf courses at this time of year is tight fairway lies produced by low soil temperatures and increased cart traffic. This was certainly not the case at Hunters Ridge and I feel that overall good conditions were being provided.

Primo: The plant growth regulator Primo (trinexapac-ethyl) is an excellent tool for reducing clipping production and improving turfgrass density. Primo is most often used throughout the summer months to improve mowing practices and to reduce the need for dragging or blowing clippings. The recent warm spell has caused the fairways to grow quite aggressively and I feel that Primo can be applied at this time to improve density and to reduce the legginess of the turf canopy.

Sand Topdressing: The undiluted organic layer that occurs at Hunters Ridge is common on golf courses that are over 20-years old. Many facilities cannot afford to topdress their fairways with sand and this creates a mucky organic layer over time. As the fairways age and the organic layer increases, occurrence of “mud on the ball”, plugged lies and reduced ball roll increases. Sand topdressing was once a luxury that only high-end clubs could perform, but as the demands for good playability have increased, sand topdressing has become a common practice at many facilities.



Sand topdressing improves surface smoothness and decreases plugged lies

that can occur on fairways with increased organic matter. Eventually, routine sand topdressing improves the fairway rootzone, increasing the soil’s ability to leach salts and improve root growth. The amount of sand applied each summer depends on available budget, but, agronomically, as much as ¾-inch can be applied over several applications. The following conversions are important for determining inches of sand applied to volume of topdressing needed:

8.5 yds³/ acre = 1/16th inch

17.0 yds³/ acre = 1/8th inch

26.0 yds³/ acre = 3/16th inch

34.0 yds³/ acre = 1/4th inch

67 yd³ (115 tons)/ acre = 1/2 inch

High quality sands are not necessary for improving fairway conditions, but it is important that the topdressing be free of gravel that is unsightly and damaging to mowers.

Heavy Soil: Heavy soil conditions are common in certain areas of many golf courses. Oftentimes, lakes are dredged and this material is then spread throughout the remainder of the golf course and comprises the soil. Sometimes, this material contains a high degree of rock, shell and/or clay and this was evident on several locations at Hunters Ridge. Hunters Ridge is quite small at 65 acres and does not allow a large area for golfers to traverse. As a result, some areas receive concentrated wear from golf carts and this is made worse in areas with heavy soil. Some fairways have a good, sandy rootzone that drains well, while others, like #1 and #14, have pockets with limestone and clay that compact easily under traffic. Some of these areas may require that additional drainage be installed to remove excessive water. A good example of this might include the fairway on #1. At minimum, I recommend that supplemental aeration or “venting” be implemented each summer (especially in high traffic areas).

Tree Roots: Trees are beneficial features, as they provide strategic and environmental benefits. However, trees also compete with turf for sunlight, water and nutrients. Tree limbs are pruned periodically at Hunters Ridge, but I also recommend root pruning, especially those with extensive shallow root systems. Tree roots quickly recover, and pruning every other year at a depth of 16 to 18-inches is recommended. One of the best implements is the IMANTS root pruner, as it creates minimal surface disruption and completely severs roots with two blades. This implement only cuts roots up to 12-inches deep but it can be performed more often with little damage to the turf.



This live oak was recently root pruned and the brown turf was caused by tree roots

Tree Shade: Limb pruning is somewhat helpful but, eventually trees must be removed from areas to make a positive impact. Shaded areas that receive additional stress from traffic, like #5 and #16 roughs and #14 fairway will remain thin during the winter play season, unless trees are removed. These areas have an abundance of trees and thinning the current stand will improve the health of the remaining trees, while improving turf health and quality.



Some trees have been removed from this location but I recommend removing several more

CLOSING STATEMENTS

Thank you for the opportunity to visit and discuss your golf course maintenance operation as part of the USGA Green Section's Course Consulting Service. In addition to this visit and report, please do not hesitate to contact our office at any time during the year with further questions to take full advantage of our service.

Sincerely,



Todd Lowe
USGA Senior Agronomist