



COURSE CONSULTING SERVICE

Onsite Visit Report

Sun City – White Wing Georgetown, Texas

Visit Date: August 7, 2019

Present:

Gary Wilson II, Director of Golf
Cash Lane, Golf Course Superintendent
John Daniels, USGA Green Section
Alex Bach, USGA Green Section Intern

United States Golf Association

John Daniels, Agronomist | Green Section
1910 Pacific Avenue, Suite 14030 | Dallas, Texas 75201
(C) 314 604 8682 | (O) 972 331 3101 | jdaniels@usga.org

The USGA Green Section develops and disseminates sustainable management practices that produce better playing conditions for better golf.

Background

It was a pleasure to return to Sun City and visit White Wing Golf Course. The focus of my visit was to review turfgrass health and provide agronomic and playability suggestions to enhance the golfing experience. I was pleased to find the golf course in good condition. The only major blemish was a few drought-stressed fairways. It was also great to see the architectural enhancements that were recently completed under the direction of Jason Straka. The tree removal that was carried out was very impactful and has resulted in noticeably better turfgrass quality in numerous areas that previously struggled from lack of sunlight (e.g. Hole No. 7). Additional improvements such as the expanded tee area and wider fairways will certainly help to disperse the amount of traffic stress that occurs throughout the year.

The following report provides an assessment of the current golf course condition and offers suggestions on ways to further improve the day-to-day consistency. Topics included course setup procedures, bunker conditioning, and strategies for dealing with bermudagrass encroachment around the putting greens. Please feel free to contact me directly should you have any questions regarding the recommendations herein.

Table of Contents

- Putting Greens** 3
 - Observations 3
 - Recommendations 3
- Tees** 5
 - Observations 5
 - Recommendations 5
- Bunkers** 6
 - Observations 6
 - Recommendations 6
- Fairways** 7
 - Observations 7
 - Recommendations 7
- Summary** 9
- Additional Considerations** 9

Putting Greens

Observations

- 1. The putting greens were in very good health at the time of my visit.**
 - The ultradwarf bermudagrass had an excellent green color. No significant damage was noted on any of the putting greens we examined.
 - Turfgrass roots generally extended 3 inches in depth which is good for an ultradwarf. After close examination, numerous white roots could be found in the samples. This is a positive sign and indicates a healthy growing environment.
 - The soil profile was very uniform and there were no soil layer issues. Organic matter concentration was within an acceptable range.
- 2. Leaf texture was good, but not great. It could be improved upon with more frequent brushing or grooming.**
 - Ideally, brushing should occur daily during mowing. Brushes help to improve the quality of cut by reducing the amount of leaf blades that are laid over. Groomers can also help to improve leaf texture but are not able to impact the entire surface like a brush.
- 3. The putting green edges were recently trimmed to combat encroachment of the collar into the putting surfaces.**
 - This is an important practice to slow the progression of unwanted bermudagrass.
- 4. I noticed several old hole locations where the turf was not properly aligned.**
 - Although of the plugs appeared to be level and would not cause a significant issue with ball roll, they did detract from an otherwise beautiful, uniform surface.
 - More attention to which way the grain is going before changing hole locations and transplanting plugs of turf would alleviate this issue.

Recommendations

- 1. Based on the amount of organic matter present within the upper few inches of the root zone and the overall health of the putting greens, I do not see any need to make major changes to the cultivation program.**
 - Aerating the putting greens twice per season, once during the late spring/early summer and again during the late summer should be sufficient to promote a healthy growing environment for turfgrass. June and August are typically good time periods.
 - Try to time the aeration events when the air temperature is consistently 85-degrees Fahrenheit or above, as this will allow for rapid bermudagrass recovery in one weeks' time.
 - Fertilize with a granular product 3 days prior to aeration at a rate of 0.5 pounds of nitrogen per 1000 square feet to reduce the length of recovery time.

2. Maintain a healthy balance of organic matter through periodic sand topdressing.

- Topdress the putting greens every 7 to 14 days at a rate of 100 pounds of sand per 1000 square feet. This light rate should not disrupt putting conditions.
- Frequent sand topdressing will lead to firmer putting surfaces and less pronounced ball marks.

3. Vent the putting greens to improve water infiltration and allow for oxygen to reach the roots.

- In addition to the two aeration events, I suggest venting the putting green every 3 weeks with small diameter (e.g. 0.25-inch) solid tines throughout the summer. This process causes minimal surface disruption to golfers but is very beneficial in promoting water infiltration and oxygen to the turf roots.
- Roll the putting greens immediately after venting to smooth any surface disruptions.

4. Edge the putting greens once per week and pull any bermudagrass contamination.

- One of the best tools I have seen for completing this practice is the [Edge-R-Rite](#) with a circular blade from Turfco®.
- Some golf courses have retrofitted this edger with a smooth roller wheel, similar to what is found on the deck of a rotary rough unit, on the back of the unit in place of the stock wheel to prevent wheel ruts from developing on the turf.

5. When changing hole locations, make sure to understand which way the grain is going from the area of turf that you are cutting so that it can be matched with the surrounding grain when being transplanted.

- Teach employees how to recognize the direction of the grain by brushing their hand across the turf canopy.

6. Begin using brushes daily in conjunction with mowing.

- This will help to alleviate issues with grain and allow for a much tighter leaf canopy. Skip brushing 1 to 2 days after sand topdressing. Brushing should occur all other days.
- There are aftermarket attachments that can work with your John Deere® cutting units. I would consider equipping the current putting green mowers with [Greens Perfection](#)™ brushes.
- Care should be taken when setting brush heights, similar to how you go about setting cutting height. I suggest purchasing a [Groomer Gauge](#) that is specifically designed for this task. Generally, 0.85-inch height is a good setup. That is, 0.85-inch clearance measured from the ground up.

7. The following surface management program is recommended during bermudagrass growing months:

- Monday: Verticut the putting greens and backtrack mow. Topdress with sand and drag. A roller equipped with brush is an excellent way to incorporate the sand.
- Tuesday: Mow without brushes. A dry cut, later in the day can help to limit the amount of sand that is picked up by the mower.

- Wednesday: Mow without brushes.
- Thursday: Mow with brushes.
- Friday: Mow with brushes.
- Saturday: Mow with brushes.
- Sunday: Mow with brushes.

8. Be proactive with regard to covering the putting greens in the winter.

- Anytime the low temperature is forecasted to drop to 25 degrees Fahrenheit or lower, the putting greens should be covered. This is particularly important during the late winter/early spring when plants are starting to green up.
- Prior to winter, apply a wetting agent and irrigate heavily to ensure adequate moisture. Continue to monitor soil moisture throughout the winter despite the turf being dormant.
- For other helpful strategies, review the following article: [Five Tips For Protecting Bermudagrass Putting Greens During Extreme Cold](#)

Tees

Observations

- 1. I noted several tee markers that were not correctly oriented with the line of play.**
 - While this may seem like a subtle point, this can be quite frustrating for golfers who rely on the markers for alignment.
 - Properly aligned tee markers that are evenly spaced elevate the final presentation of the golf course.
- 2. It was also mentioned that some of the new tees are very firm which makes it challenging to get a tee into the ground.**

This is a common complaint among new tees and one that will get better with time as cultivation practices are completed.

Recommendations

- 1. Build a t-square out of PVC that can be placed on the ground and used a guide to ensure that the tee markers are accurately positioned.**
 - A 1-inch diameter PVC pipe that is roughly 16 inches wide and 12 inches tall is an inexpensive but useful tool for helping align the tees.
 - Place the t-square on the ground each time the tee markers are moved.
- 2. Vent the new tees with small diameter solid tines (e.g. 0.25-inch) once per month to alleviate compaction.**
 - This will make it easier to put a tee into the ground.

More care during course setup is needed to minimize unsightly old hole locations (left) and ensure tee markers are properly positioned so that players are hitting towards the ideal line of play.



Bunkers

Observations

- 1. Of the new bunkers, eight of them have pieces where gravel from the liner has broken away.**
 - Mr. Lane indicated that the contractor which did the work (Mid-America Golf) was going to be returning to make necessary repairs in the near future.
 - Outside of these few installation problems, the bunkers have performed well thus far.
- 2. The staff has been raking the bottoms of the bunkers and smoothing the faces in an effort to limit plugged lies and help balls move toward the base.**
 - This technique is often referred to as the “Aussie Method” since that is the region where the raking style first gained popularity.
 - Typically, a less disturbed face will provide a firmer surface and resist plugged lies which is a good thing for golfers. To achieve this setup the maintenance team has simply used the back side of the rake to smooth the sand and the teeth side exclusively on the bases.
 - There overall presentation of the bunkers could be improved upon. The sand along the faces which was smoothed with the back of the rake was generally uneven. There are more effective tools that can be used to achieve the desire look.

Recommendations

- 1. Use an extendable paint brush roller to smooth the bunker faces.**
 - A foam pool noodle that is sleeved over an extendable paint brush roller is a great tool for conditioning the bunkers. It is easy to apply down pressure and minimal sand will stick to the foam even when wet.
 - The following USGA articles provide more detail:
 - [Rolling Bunker Faces Saves Time And Improves Playability](#)
 - [A Bunker Tip and Fairy Ring Alert](#)

Fairways

Observations

- 1. There were multiple fairways that were showing signs of drought stress.**
 - Poor irrigation pressure was to blame for the recent drought stress. The pump station used to power the irrigation system has been having difficulties delivering the appropriate amount of pressure. As a result, the sprinklers have not been able reach all turf areas on certain areas of the fairways on White Wing.
 - Mr. Lane indicated that the pump station was scheduled to be serviced by an outside technician in the coming days. Hopefully, the underlying issue for the poor pressure will be identified and corrected in short order.
 - The vast majority of bermudagrass that is dormant should bounce back without issue once irrigation capabilities are fully restored. I would not anticipate any long-lasting issues.
- 2. Other than the isolated drought stress, the rest of the fairway turf was green and healthy.**
 - The fairways are being cut at 0.600-inch which provides a nice surface for players to sweep the ball.
- 3. There were some patches of yellow nutsedge present within the fairways and adjacent rough.**
 - Mr. Lane indicated that spot treatments have been carried out on a few of the fairways and the rest of the remaining areas will be targeted in the coming days.

The areas of brown turf within the fairways on Hole Nos 12 and 13 are the result of poor irrigation coverage from insufficient water pressure.



Recommendations

- 1. Addressing the water pressure issues is a high priority.**
 - The pump station is vital for providing both White Wing and Legacy Hills with water.
- 2. Apply Certainty® herbicide to any yellow nutsedge infestations.**

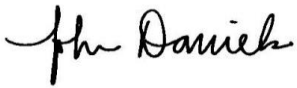
- Spot treatments are suggested to minimize the expense and save time when making an application.
 - Make sure to combine a nonionic surfactant to the tank to improve the efficacy of the herbicide.
 - Do not mow one day prior or following application to improve herbicide uptake.
- 3. Continue making monthly treatments with a plant growth regulator to all fairways and rough.**
- I understand you have been using the plant growth regulator Legacy® (which is a combination of flurprimidol and trinexapac-ethyl) with success this past season. Most golf courses I work with use strictly trinexapac-ethyl on bermudagrass. I do not see any reason to switch from your current program if you are satisfied, other than the fact that trinexapac-ethyl is probably going to be a little less expensive. The important thing is to keep using a plant growth regulator for these areas.
 - Trinexapac-ethyl helps to improve bermudagrasses tolerance to shade, as demonstrated in [research at Texas A&M](#). Not only that, it will help to create a finer leaf texture and more dense playing surface.
 - Treatments should begin in May and continue through September. The amount of time spent spraying should be offset by the reduction in mowing frequency.
 - When treating with a plant growth regulator, I would also add some nitrogen to the tank as this will allow for spoon-feeding, thereby helping to create more uniform growth.
- 4. The use of a sprayer with [boomless nozzles](#) can significantly reduce the amount of time required to apply the product.**
- Boomless sprayers make treating around obstacles like trees and slopes much easier. They can typically through around 15 feet in either direction.
 - For steps on converting an existing sprayer to a boomless configuration, see the following blog post from Stone Creek Golf Club [here](#).
- 5. Use a low spray volume for trinexapac-ethyl treatments to limit the number of times the spray tank must be filled and the overall length of time necessary for making an application.**
- You want to avoid having the product fall off the leaf surface, so the minimal amount of water necessary for creating a uniform spray pattern is best.
 - Some golf courses have reported using 25 to 30 gallons per acre when using a boomless nozzle sprayer.

Summary

The golf course is was in good condition. I imagine the golfing membership must be very satisfied with the quality of the putting greens as well as the numerous improvements that occurred during the renovation project. A few adjustments to the daily conditioning and greater attention to detail when completing certain tasks like changing hole locations and setting tees will help to further elevate the presentation of the golf course.

If there are any questions regarding the recommendations made in this report, feel free to contact me directly at **972.331.3101**. I look forward to working with Sun City in the future.

Respectfully submitted,



John Daniels, Agronomist
USGA Green Section

Distribution:

Gary Wilson II, Director of Golf
Cash Lane, Golf Course Superintendent

Additional Considerations

USGA Green Section Record

If you would like to receive the USGA's electronic publication, the *Green Section Record*, [click here](#). It is free, informative and sent directly to you via email every two weeks. In it you will find numerous articles and videos pertaining to golf course management created for turf managers and golfers alike.

About the USGA Course Consulting Service

As a not-for-profit agency that is free from commercial connections, the USGA Course Consulting Service is dedicated to providing impartial, expert guidance on decisions that can affect the playing quality, operational efficiency and sustainability of your course.

First started in 1953, the USGA Course Consulting Service permits individual facilities to reap the benefits of on-site visits by highly skilled USGA agronomists located in Green Section offices throughout the country.



For questions regarding this report or any other aspect of the USGA Course Consulting Service, please do not hesitate to contact our office.

