

Dear Residents and Guests,

Greetings from the Agronomy Department at SaddleBrooke Ranch Golf Club. I have been asked to provide a summary of things discussed at our first Greens Committee meeting held last week. This correspondence will provide insight as to current course conditions issues impacting turf health and the plan for over seed 2018.

First of all, and since we have the opportunity, let's discuss the agronomic issues that are impacting the overall health of the fairway turf.

**Sodic soils:**

The fairway soils at SR are very high in sodium and are approaching toxic levels. Soils high in Sodium repel water and affect availability of other beneficial nutrients- mainly Potassium and Calcium which are key components in root development and overall plant function. Potassium is also the main constituent of carbohydrate storage. Carbohydrate reserves are important in perennial plants for winter survival, and spring growth initiation. Energy reserves accumulate in the fall when photosynthetic activity is high, and when top growth slows. A later over seed date helps build plant energy in Bermuda grass plants.

**Soil Ph.**

The fairway soils at SR are extremely alkaline meaning the Ph is high. High Ph soils are poorly structured and present a low infiltration capacity. This is one of the reasons the golf course was generally too wet this summer. The soils simply do not have the ability to accept water. Grass plants prefer a neutral Ph of 7 and currently the irrigation water is 9.5. Eventually the soils will mimic the components of the water.

**What's the plan?**

We have begun an acid injection program to treat the water. All acids hold a very low Ph value which will compromise the high Ph water going out at night. The acid that I'm currently using holds a Ph value of less than 1. Acids also mitigate Sodium concentration which will allow Calcium and other beneficial nutrients to be available to the plant. It will take time to balance the soil. In the meantime, we will feed the plants with a foliar method by spraying. Instead of relying on soil provided nutrient release, we trick the plants by spraying instead of spreading.

**Spring Transition:**

Transition problems are almost always environmental meaning they are directly related to the weather patterns during the months of April and May. As discussed above, energy reserves of the Bermuda grass are gradually depleted during the winter months, and in Arizona, the plant is out of energy sometime in May. At this time both grasses are competing for water, nutrients and sunlight.

Bermuda grass begins to green up when the nighttime temperatures are above 60 for several days in a row and when soil temperatures are consistently 65 or higher. At this time, it is important to shift the competitive advantage to the Bermuda base by weakening the rye. This can be accomplished mechanically as well as chemically. This process will be critical at SR to allow us more time to work on our already weak Bermuda base.

**Over seed 2018:**

The decision has been made to over seed all golf holes this year rather than skipping a few. After the struggles with the turf this summer, I believe that it's important to put the best available product out there for our residents and guests. This means we go back to a more customary approach. All fairways will be seeded as well as tee tops and of course greens. Everyone can expect excellent playing surfaces this year after opening day. We will work on our Bermuda base in 2019 using the method outlined above. Hopefully it warms up in April and stays that way.

**USGA Involvement:**

Across the country and separated by region, the USGA provides services related to golf maintenance agronomy operations. After a site visit, they provide unbiased reports based on real facts relative to our facility. I will work closely with them going forward to make sure that we are doing everything possible to avoid potential issues with our already constructed 2019 soil management programs.

I hope this has answered some questions. Trust the plan and be patient. The last thing we are going to be is average. See you on the course!

Sincerely,

Christopher L. Blake

Class A Golf Course Superintendent.

SaddleBrooke Ranch GC.

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