



Reversing the Effects of Effluent Water

A Current Case Study

With water being a protected commodity for many golf course operators, the only option available is the use of effluent water. Though this option sometimes provides an unlimited supply of water, the principal issue facing most operators is dealing with the less than desirable quality of the water and the resulting impact it has on their turf and soil health. This is the case for a Central Florida golf course, designed by Donald Ross in 1925, which has struggled with this issue for over three years.

Owned and operated by the host city, this facility started using effluent several years ago as a means to reduce withdrawals from the dwindling Florida well water supply and utilize an abundant water supply that was a byproduct of city water treatment systems which was free and in great supply. The challenge now was how the turf would and soils respond and as many of you have experienced, not too well. Soon the turf started declining and the resulting soil tests declined due to the increased pressure from excess sodium and bi-carbonate inputs on a daily basis. Couple this with the natural age of the facility and the result was significant turf loss.

The operators of the facility tried several different programs and products over the years with limited improvement to the overall turf conditions. In late June of this year, the operators were introduced to 3 Tier Products by our local sales rep and we determined an aggressive weekly program would be required to reverse the years of sodium and bi-carbonate buildup and stabilize the foundation for the turf. The 3Tier program was also supplemented with 25# of soluble ammonium sulphate to assist in the grow-in requirements of the course. The following are the photo results of the progressions the turf went through during the 90-day turn around.

Putting Green Progress



July 13, 2012



August 13, 2012



September 12, 2012



17th Green Progress



July 13, 2012



August 13, 2012



September 12, 2012

The program consisted of the 3 Tier 12-Week Fairy Ring program with SA-1000 included which was applied once a week. The objective of the program was focused on reversing the negative effects of sodium and bicarbonate buildup in the soils and to release the nutrients and enable them to perform while dramatically increasing plant growth and recovery. The turf is TifDwarf Bermuda grass and though some of the areas did have some turf plugging, the majority of the recovery was from the regeneration of the existing turf.

The complete 3 Tier weekly program cost the facility \$280 per week or \$140 per acre. The facility is completing one more month of weekly application to complete the grow-in and then will reduce the application to twice a month until the overseed is placed in late October when the program intervals will go back to weekly treatment until the overseed is completely established. It should also be noted that other than the supplemental nitrogen added to stimulate aggressive growth and recovery, no other products or chemicals were used which provided a cost effective solution to the city.

If you are looking for a cost effective solution to reverse the negative effects of effluent water, poor soil structure due to age, or just looking to improve your overall nutrient programs, contact 3 Tier Technologies to explore how inexpensive our guaranteed programs are.

Contact Us At:

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Or

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