

minutes per station.

**Overseed programs**

I have never overseeded.

**Summary**

If treated properly this turf is far and above the quality of Tifdwarf. It will definitely be the turf of the future. If you are not growing it now, you will be in the next three to five years.

JAY REISTER

*Golf Course Superintendent*

**Lake Region Y. & C.C.**

**Establishment/Grow-In Program**

At Lake Region we reconstructed our green surfaces during the summer of 1998. We started the project on June 22 and opened the greens Oct. 1. We cored them out to a depth of 6 inches and put in a No.1 sand greens mix. We filled in the 6 inches with the new mix and rototilled them to a depth of 13 to 14 inches. We basically created an 85/15 mix.

We also made a few changes to some greens' contours but mostly just rebuilt them as they were. As to the establishment of the new greens, we first wanted to grow them in as fast as possible. We had a very tight window to pull this off. We planted the front nine July 23 and the back nine on Aug. 3. We upped the sprigging rates on the front nine to almost 30 bushels per acre with the norm being 20 bushels.

When we got to the back nine, our grow-in window was getting smaller so we used almost 35 bushels back there. This helped us get to the date we needed. Prior to the last floating of the new surfaces, we prepped them with Triple-Super-Phosphate, Milorganite, and Dol-Lime. Then we made our final tilling and leveling while working in these three products. Then we sprigged them and cut them in two different ways.

From this point on we poured the water to them. We started running 20-minute programs per green throughout the entire day.

We wanted to keep the soil profile as wet as we could. We ran this program for two to three weeks and then started to back off some. We went to 10-minute cycles

eight times a day. This seemed to keep them with good moisture throughout.

Now we started to get into the fertility. We put at least a pound of N out per week. We used ammonium sulfate one week, a complete 10-10-10 one week, and ammonium nitrate one week. We continued this throughout the majority of the grow-in.

As we got closer to our opening date the last three to four weeks, we began hitting them twice a week with ammonium nitrate to push them really hard. This helped close up some thin spots. We were able to redo 21 greens and get them opened on time.

We started to roll them after four to five weeks. We put a large 7-foot-wide roller with water in the cylinders on them to begin the smoothing phase. We would roll three times a week in different directions. This worked really well and from there we started to topdress them.

We would open the topdresser wide open and cover them thoroughly. We began our topdress regime about five weeks into the grow-in. We continued this throughout the grow-in and with the rolling and topdress together we ended up with some very nice surfaces.

When we were 70 percent grown in, we began to mow them. We used solid rollers and a mowing height of .170. We continued to mow every couple of days for a week or two, and then began mowing almost daily.

We were still topdressing and rolling as we continued mowing. All three operations went well and the surfaces started to look pretty good.

After a couple of weeks at that height, we went to .150 and at opening we were at .125 using Wiehle rollers with tournament bedknives, which we were using anyway.

**Routine Cultural Practices**

**A. Mowing**

Our mowing program today uses Toro triplexes. We keep them at .120 with Wiehle rollers and we use tournament bedknives. We spin grind our reels weekly. We use 11-bladed reels and we're getting eight to ten weeks out our bedknives. We use a greens roller twice a week and we also use Primo at a rate of 1-1/2 ounces per acre every two weeks.

This helps on a daily basis in two areas: It seems to minimize clippings and keeps good speed in the late afternoon. We are able to provide a quality surface for our membership with triplexes and will continue to use them as long as we are able to do so. We add one new mower to our fleet each year and rotate the older mower out.

**B. Verticutting**

We use a Toro mower with their standard verticut reels. We verticut our surfaces biweekly. With each application we are set to go at 1/4 inch in two different directions. We adjust those two directions on each verticut cycle. We make a cleanup mowing and follow that with a light topdressing. We also plan to use verti-groomers this season.

**C. Topdressing**

We use a 90/10 mix with Canadian peat. We topdress behind the verticutter twice a month. We use a Ransome topdresser which we set at just over 1/2 inch. We drag it in with a triplex and we pull a carpet. This drags in the light sand and is easier on the green surface than a golf cart. We will do this operation on a Monday morning and play is held to a noon start. We have never interfered with play. We feel light and frequent is the best for us.

**D. Fertility Program**

We apply a granular mix every two weeks. We also put out a tank of liquid each month. For granular blends, we use a 17-1-10 and rotate with a 9-3-9 mini prill through the growing season and will use IBDU through the winter. During the season we apply almost 3/4 lb. every two weeks. We also spray weekly with a minor package. The liquid normally is a 32-0-0 and at times we will put out 8-0-8. We try to keep them pumped up and very healthy.

**E. Aerification**

We start to aerify greens as early in the season as we can. We will come in with 1/4 inch solid tines in February to March depending on the weather and temperatures. We will punch them monthly with 1/4 tines til the middle of May when we will bring in an outside service to do a deep-tine aerification. They use a 5/8-inch-di-

ameter tine and go 8 inches deep. We topdress heavily behind them.

We use our small tines through the summer if needed for compaction or hot spots. In August we will come in ourselves and aerify with a 5/8 tines on Coremasters. We will also topdress heavily behind this operation. We also spike greens monthly in the winter with every topdressing.

#### F. Irrigation Practices

We irrigate on a daily schedule normally. We are always adjusting the amount that we put on them. We are a test site for Toro Irrigation and are presently testing a new controller system for them. We run set amounts and change percentages almost daily. We use a rain gauge for automatic shut off. We will put a wetting agent on them biweekly and will hand-water them on a regular basis during the week.

#### G. General Comments

During our greens construction, we did make several minor changes to some of the greens with severe contouring. We took areas that had a 9 to 10 degree fall to 3 to 4 degrees of fall. They still have very good movement but now have more cup locations.

Scalping with the new surfaces has not been a factor.

The greens seem to get a little harder and drier under drought conditions, but overall in their first year have done very well. As for ball speed, they are not as quick as I would have thought from changing grass types, but they have the ability to become very fast without stressing the turf.

We rebuilt 21 greens and completed seven other projects and we only spent \$217,000. We opened in 110 days. We are very happy with the FloraDwarf!

ALAN PUCKETT

Golf Course Superintendent

### Orange Lake Resort

**O**range Lake is a time share resort. The decision to use FloraDwarf on the new Legends Golf Course was recommended by the architect, Harrison Minchew of Palmer Design, and one that I was very excited about.

After numerous meetings with Orange Lake management discussing the pros and cons of using this new grass, we decided to use FloraDwarf.

#### I. Grow-in and Establishment

On July 8, 1998 the first green was sprigged with FloraDwarf at the rate of 30 bushels per 1,000 sq. ft.. The greens were built to USGA specifications (no choker layer) with an 85/15 greens mix. I was alarmed by the initial appearance of the sprigs. In comparison to Tifdwarf sprigs, they looked more like clippings instead of stolons.

#### A. Irrigation

We watered the new sprigs for 10-15 minutes every hour from daybreak until 7 p.m. This watering schedule continued for two weeks. At that point we reduced the watering to two daily cycles and adjusted as conditions dictated. As the turf filled in and a root system developed, we backed off to a single cycle during the evening hours.

#### B. Fertility

Prior to sprigging, a preplant fertilizer was applied. One week after sprigging, we alternated 21-0-0 and 15-5-15 weekly for the next five weeks. During the fifth and sixth weeks, we were not pleased with the results. Soil testing showed calcium and magnesium deficiencies. This was corrected by an application of dolomitic limestone at 20 lbs./1,000 sq. ft.

In the sixth week we began applying 14-4-14 with an increased minor package alternating with the 21-0-0. All applications were calibrated to apply .5 - .75 lbs. of nitrogen/1,000sq. ft. During the tenth week we started fertilizing on a two-week interval using 13-2-13 or 17-1-10. Soil tests were conducted three times during the grow-in phase to assure proper nutrients were being applied.

#### C. Rolling

We started rolling the greens during the fourth week of the process. A 1.25-ton roller was used only once due to concerns of flattening or reducing the original contours in the putting surfaces. We shifted to a standard Speed Roller and rolled weekly or as needed.

#### D. Mowing

In week three we began mowing the green with John Deere 220A walk mowers set at .187 inches. Some of my peers suggested mowing them at .125 during grow-in, but we were not happy with the results. A couple of the greens were nearly mowed to death at this height in less than two weeks. Needless to say I became very conservative and the HOC was raised to .150

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