

As Seen In
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No-Till Celebration

New Fairway Regrassing Option for Florida Golf Courses

By Todd Lowe

USGA agronomists discuss many different topics during Turfgrass Advisory Service visits, and a popular one is long-range planning. Factors like the average life expectancy of components such as putting greens, irrigation systems, the success of new turfgrasses, and renovation techniques most suitable for a particular club are discussed. Fairway regrassing is often discussed, but for several reasons this practice has not been strongly encouraged for several reasons.

DIFFICULTY IN KILLING EXISTING BERMUDAGRASS Bermudagrass is a difficult grass to kill, and even our

No-till Celebration regrassing provided excellent playing conditions and consistent turf quality at less than half the cost of conventional renovation. Photo by Todd Lowe.

most aggressive measures of multiple, long-interval herbicide treatments and methyl bromide fumigation only provide about 95 to 98 percent control. The bermudagrass that is not killed grows in size and number each year so that what initially starts as small spots can increase to large patches within three to five years after a renovation.

FIRM FAIRWAYS A layer of thatch and organic matter in fairways acts like a pad, providing surface resiliency and resistance to soil compaction from cart traffic. Conventional renovations remove this organic layer, and fairways are left overly firm following a renovation.

TIFWAY PERFORMANCE Tifway (419) bermudagrass was chosen for its fine leaf texture and overall uniformity. It has been considered the standard of quality for more than 40 years. Tifway bermudagrass provides excellent playing conditions in summer, but the peak

golfing season for Florida occurs in the winter when bermudagrass is not actively growing. While Tifway does not go fully dormant in the winter in South Florida, it is not able to quickly recover from peak seasonal play and thus complaints about very tight fairway lies and a loss of definition between the fairway and rough cuts arise at most courses.

The Club Pelican Bay, a 27-hole golf course in Naples, undertook a major course renovation and updating project in the summer of 1999. During the renovation of the fairways, multiple Roundup herbicide treatments were applied as well as methyl bromide fumigation performed before replanting with certified Tifway bermudagrass. Even with this, previously existing bermudagrass off-types and common bermudagrass became apparent within two years following the renovation. Needless to say, golfers were not pleased

with overly firm fairways that were inconsistent within just a few years.

At about the same time Celebration bermudagrass was making inroads on Florida golf courses because of its improved shade and wear tolerance compared to Tifway bermudagrass. Several shady areas at Pelican Bay were grassed with Celebration, and Bob Bittner, CGCS, also established a fairway test plot of Celebration. Two Roundup+ Fusilade treatments were applied at three-week intervals and the killed turf was then verticut and core aerated prior to sprigging with Celebration. The objective was to evaluate the playing conditions of Celebration bermudagrass on a golf course fairway as well as its longevity with such a simple regrassing technique. This initial fairway plot yielded excellent results in establishment and long-term consistency.

Additional test plots were established in 2006 and 2007 to evaluate other fairway turf conversion options. Even



A patchwork quilt appearance of multiple bermudagrass varieties can occur on all South Florida golf courses, even following complete conventional regrassing. Photo by Todd Lowe.

At just over \$2000/acre, the no-till process is less than half the cost of conventional renovation

with plots that received no herbicide treatment and were simply row planted with Celebration sprigs, the sprigs established and the percent coverage has progressively increased.

Based on the results of all the test plots, it was decided to regrass nine fairways at Pelican Bay in summer 2009. The no-till process consisted of two herbicide treatments with Roundup + Fusilade II on April 20 and May 11. Fairways were verticut once, core aerated twice, irrigated, and fertilized to encourage turf re-growth between herbicide treatments. The last sprigging date was June 4, and the fairways were rolled and topdressed with sand to encourage good soil contact.

Sprigs established quickly, as the organic matter from the previous fairways was left intact, providing ample nutrient and moisture retention for the developing roots. The fairways were open for play on Aug. 21.

Uniform turf quality was observed on the new no-till fairways, and golfers were very pleased with playing conditions. The winter of 2010 was one of the coldest on record in the past 40 years, and the new fairways outperformed the other 18 fairways.

At a cost of just over \$2000/acre, the no-till process is less than half the cost of conventional renovation and is now viewed as a no-brainer for the other 18 fairways in 2010 and 2011.

Conventional bermudagrass renovations of completely stripping the existing bermudagrass, methyl bromide fumigation, and sprigging with Tifway bermudagrass might be a bygone practice for South Florida golf courses. Conventional techniques are

not foolproof, and alternative grassing techniques are being investigated, as they save a considerable amount of money and are showing excellent promise. Following the initial success at Pelican Bay, several clubs in South Florida are implementing no-till Celebration wall-to-wall in 2010. Many other clubs are also establishing their own evaluation plots for future regrassing. ■

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