

2013

# Tee Complex Construction Project

Daniel J. Strey

*Iowa State University*, [dstrey@iastate.edu](mailto:dstrey@iastate.edu)

Follow this and additional works at: [http://lib.dr.iastate.edu/farms\\_reports](http://lib.dr.iastate.edu/farms_reports)



Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), and the [Horticulture Commons](#)

---

## Recommended Citation

Strey, Daniel J., "Tee Complex Construction Project" (2013). *Iowa State Research Farm Progress Reports*. 1893.  
[http://lib.dr.iastate.edu/farms\\_reports/1893](http://lib.dr.iastate.edu/farms_reports/1893)

This report is brought to you for free and open access by Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State Research Farm Progress Reports by an authorized administrator of Iowa State University Digital Repository. For more information, please contact [digirep@iastate.edu](mailto:digirep@iastate.edu).

---

# Tee Complex Construction Project

## **Abstract**

The project was initiated to construct an area that would simulate a golf course tee and green complex. Over fifteen years ago, a south-facing, sloped green was built to USGA specifications that allowed for research under these specific conditions. The trial had been terminated and left fallow for several years.

## **Keywords**

RFR A1217, Horticulture, Turfgrass

## **Disciplines**

Agricultural Science | Agriculture | Horticulture

# Tee Complex Construction Project

## RFR-A1217

Dan Strey, research associate  
Department of Horticulture

### Introduction

The project was initiated to construct an area that would simulate a golf course tee and green complex. Over fifteen years ago, a south-facing, sloped green was built to USGA specifications that allowed for research under these specific conditions. The trial had been terminated and left fallow for several years.

### Materials and Methods

The existing site was built to USGA specifications, which included 12 ft of sand, 4-6 in. of pea gravel, and drain tile in the subgrade. Both the sand and gravel were stripped off in layers using a Bobcat T-190. The materials were kept separate and stockpiled to reuse for the construction of the tee complex. After the sand and gravel was removed, the subgrade was reshaped to match the new contours. This process required a cut and fill approach, since all of the material had to stay on site and be reused. Once the subgrade was formed, a 4-6 in. pea gravel layer was then installed, followed by a 12 in. layer of sand. The surrounding areas were constructed using native soil from the site. The project was completed without requiring the need of transporting materials. All materials were used from the existing site.

The irrigation system that was previously installed was removed prior to the excavation and used for parts to reduce the cost of the renovation. A new system was required to control the green and tee individually. Golf course greens and tees require different

amounts of moisture throughout the year. New lateral lines (2-1/2 in. Sch. 40 PVC) were installed and attached to the two existing valves. The eight existing heads (Toro TR70) were cleaned and reinstalled.

The seedbed was prepared using a Toro Sand Pro 5040. This smoothed the area and provided a firm surface. Both the tee and green were seeded with 007 creeping bentgrass (*Agrostis stolonifera*) on October 1, 2012. The cultivar was chosen for its ability to resist dollar spot disease and heat tolerance. The areas were seeded at a rate of 1.75 lb/1,000 ft<sup>2</sup> using a Scotts SS-2 drop spreader. After seeding, the same Toro Sand Pro was driven over the surface repeatedly to provide seed to soil contact. A starter fertilizer was applied at a rate of 1 lb of phosphorus/1,000 ft<sup>2</sup>.

The area was covered using permeable grow covers to maintain soil temperatures during the fall months. Germination was observed 10 days after seeding. The grow covers were removed four weeks after germination to allow the seedlings to harden off before winter.

### Results and Discussion

This tee complex will be completely established next season and will be available for research trials at the beginning of the 2014 season. The tee complex was built for research and as a demonstration. The construction project was an opportunity for the staff to gain the knowledge of how to construct a golf course green or tee. Also, the tee complex is located in a high traffic area of the farm and will be used for future tours of the facility.