

1997 USGA/GCSAA/NTEP Creeping Bentgrass Test

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Objective

The objective of this experiment is to determine the performance of 18 varieties of creeping bentgrass maintained as putting green turf under regular use as a practice putting green.

Rational

Variety of creeping bentgrass plays a major role in determining quality of the putting greens. Therefore, it is important to know which varieties of creeping bentgrass perform the best under Indiana growing conditions. In addition, this test is used as a practice putting green and is maintained by Jim Scott, Golf Course Superintendent at the Birck Boilermaker Golf Complex, so that all performance data collected reflects actual use conditions.

How It Was Done

Eighteen cultivars of creeping bentgrass were seeded on 3 Oct 1997 at the rate of 1.1 lbs seed per 1000 sq. ft. on a practice putting green at the Birck Boilermaker Golf Complex. The practice putting green was built to USGA specification and the rootzone consisted of 83% sand and 17% sphagnum peat moss by volume. Starter fertilizers were applied immediately prior to seeding at the rate of 2.0 lbs N, 2.3 lbs P₂O₅ and 1.0 lb K₂O per 1000 sq. ft. The green was covered with a lightweight fabric until early Nov 1997 to prevent seed movement. In 1999 the green was fertilized with 4.8 lbs N, 4.6 lbs P₂O₅ and 4.4 lbs K₂O per 1000 sq. ft. Mowing height was 5/32 inch seven days per week. Topdressing, spiking and verticutting were done on a regular basis during 1999. The green was irrigated to prevent any sign of drought stress. Fungicides and insecticides were applied as needed to keep pest damage to a minimum.

In 1998 and 1999 data collected included spring green-up, genetic color, leaf texture, and monthly quality ratings from Apr to Nov. All data taken were visual observations of turf characteristics and performance. Visual quality ratings were taken using a scale of 1 to 9 with 1 = no living turf, 5 = acceptable turf, and 9 = ideal turf.

Results to Date

- The variety average visual quality rating after two years was 6.0. This provides a benchmark to compare the varieties on the market to the average performance of all creeping bentgrass varieties in this test.
- Many cultivars of creeping bentgrass had an average visual quality rating of 6.0 or higher.
- Penn A-1, Penn A-4, Penn G-1, Imperial, and Penn G-6 were the top performing varieties after two years of evaluation.

Table 1. Average yearly visual quality ratings of bentgrass varieties for 1998, 1999 and two year average visual quality ratings.

Variety	Visual quality ^a		
	1998	1999	Two year average
Penn A-1	6.2	6.9	6.5
Penn A-4	6.1	6.9	6.5
Penn G-1	6.0	6.9	6.4
Imperial	5.9	6.7	6.3
Penn G-6	5.9	6.7	6.3
L-93	5.8	6.6	6.2
Century	5.8	6.5	6.2
Grand Prix (LCB-103)	6.0	6.3	6.1
Crenshaw	5.8	6.2	6.0
SR 1119	5.5	6.4	6.0
Cato	5.4	6.4	5.9
Backspin	5.5	6.2	5.9
Providence	5.4	6.3	5.9
Trueline	5.8	5.9	5.8
Viper	5.5	5.9	5.7
SR 1020	5.2	6.1	5.6
Putter	5.3	5.8	5.5
Penncross	5.5	5.5	5.5
Variety Average ^b	5.7	6.3	6.0

^a Visual quality ratings were taken using a scale of 1 to 9 with 1 = no living turf, 5 = acceptable turf, and 9 = ideal turf.

^b Variety average is the average visual quality rating of all 18 varieties of creeping bentgrass in the test for a given year and the two year average.