

1997 USGA/GCSAA/NTEP Creeping Bentgrass Test - 2000 Results

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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

Varieties of creeping bentgrass play a major role in determining quality of 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-97 at the rate of 1.1 lbs seed/1000 ft² 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 lb K₂O/1000 ft². The green was covered with a lightweight fabric until early Nov 1997 to prevent seed movement. In 2000 the green was fertilized with 4.0 lbs N, 0.8 lbs P₂O₅, and 2.4 lbs K₂O/1000 ft². Mowing height was 5/32 inch 7 days/week. Topdressing and spiking were done on a regular basis during 2000. 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 1999, and 2000 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 three years was 6.2. This provides a benchmark to compare the varieties on the market to the average performance of all creeping bentgrass varieties in this test.
- Imperial and the four Penn A and G varieties were the top performers, but many cultivars of creeping bentgrass had an average visual quality rating of 6.0 or higher.
- These results show the improvements made by breeding programs since the release of Penncross.

Table 1. Average yearly visual quality ratings of bentgrass varieties for 1998, 1999, 2000, and three year average visual quality ratings.

Variety	1998	1999	2000	Three year average
Penn G-1	6.0 ^a	6.9	7.3	6.7
Penn A-4	6.1	6.9	7.2	6.7
Penn A-1	6.2	6.9	7.0	6.7
Imperial	5.9	6.7	6.9	6.5
Penn G-6	5.9	6.7	6.8	6.5
L-93	5.8	6.6	6.7	6.4
Century	5.8	6.5	6.7	6.3
Grand Prix (LCB-103)	6.0	6.3	6.7	6.3
SR 1119	5.5	6.4	6.5	6.2
Cato	5.4	6.4	6.5	6.1
Providence	5.4	6.3	6.4	6.0
Backspin	5.5	6.2	6.3	6.0
Crenshaw	5.8	6.2	6.2	6.0
SR 1020	5.2	6.1	6.5	5.9
Viper	5.5	5.9	6.1	5.8
Trueline	5.8	5.9	5.8	5.8
Putter	5.3	5.8	5.6	5.6
Penncross	5.5	5.5	5.3	5.4
Variety average ^b	5.7	6.3	6.5	6.2

^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 three year average.