

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 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 1,000 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 1,000 sq. ft. The green was covered with a lightweight fabric until early Nov 1997 to prevent seed movement. In addition to the starter fertilizer, 18 lbs N, 7.7 lbs P₂O₅, and 10.7 lbs K₂O were applied in fall 1997 and throughout 1998. Mowing height was gradually reduced until the green was mowed at 5/32 inch six days per week. Topdressing, spiking and verticutting were done on a regular basis during 1998. 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.

Data collected in 1997 were seedling vigor and percent cover to assess rate of establishment. In 1998 data collected included 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

- Seeding on 3 Oct 1997 lead to slow seed germination of all varieties and increased the amount of time to achieve good turf cover in spring 1998.
- Few differences among varieties for seedling vigor and percent cover in Nov 1997 were observed.
- Visual quality ratings in Apr and May 1998 were below acceptable due to incomplete turf cover which was caused by the late seeding date in 1997.
- By June 1998 all varieties had achieved 98% or greater turf cover (Table 1).
- Several more years of evaluation will be needed before performance of these varieties in Indiana can be fully determined.

Table 1. Percent cover in March and May, color, leaf texture and mean visual cover for 1998 for 18 varieties of creeping bentgrass.

Variety	% Cover ^a Mar	% Cover May	Color ^b	Leaf ^c texture	Mean visual ^d quality
Penn A-1	66.7	90.0	7.7	7.3	6.2
Penn A-4	70.0	93.3	7.7	8.0	6.1
LCB-103	73.3	94.3	6.0	7.0	6.0
Penn G-1	61.7	91.7	7.0	7.0	6.0
Imperial	71.7	91.7	5.7	7.0	5.9
Penn G-6	66.7	96.0	6.0	7.0	5.9
Century	68.3	90.0	6.3	8.0	5.8
Crenshaw	70.0	91.7	7.7	6.3	5.8
L-93	66.7	95.0	7.3	6.7	5.8
Trueline	63.3	92.7	6.3	6.0	5.8
Backspin	65.0	90.0	5.7	7.0	5.5
Penncross	68.3	91.7	5.7	6.0	5.5
SR 1119	60.0	93.3	7.0	7.0	5.5
Viper	65.0	91.7	7.0	6.3	5.5
Cato	68.3	93.3	7.0	6.3	5.4
Providence	63.3	91.7	6.3	7.0	5.4
Putter	71.7	95.0	6.0	6.0	5.3
SR 1020	58.3	88.3	6.7	6.0	5.2
LSD (0.05)	14.8	8.6	1.1	0.6	0.8

^aPercent cover was determined visually.

^bColor was determined visually with 1 = light green and 9 = dark green.

^cLeaf texture was determined visually with 1 = coarse and 9 = fine.

^dMean visual quality was determined by averaging Apr to Nov monthly visual quality ratings. A scale of 1 = no living turf, 5 = acceptable turf, and 9 = ideal turf was used.