

2003 National Turfgrass Evaluation Program: Bentgrass Putting Green Turf Cultivar Evaluation.

Cale A. Bigelow and Glenn A. Hardebeck

Objective:

To evaluate creeping and velvet bentgrasses for putting green use in the cool-humid region.

Procedures:

Thirty-two cultivars of creeping and velvet bentgrass were seeded at 1.0 lb. of seed per 1000 ft² in early September 2003 on a research putting green at the W.H. Daniel Turfgrass Research and Diagnostic Center. The research area consisted of a native-soil “push-up” rootzone that had been previously planted to creeping bentgrass and seasonally sand topdressed throughout the growing season. Prior to seeding, the existing vegetation was killed using a non-selective herbicide and the soil was sterilized using Dazomet. Throughout the growing season, the area is maintained by daily triplex mowing at 0.140 inches, irrigation to prevent stress, seasonal aerification and approximately 4.0 lbs. of N per 1000 ft²

Data collected in 2005 included genetic color, leaf texture, summer density, fall density dollar spot and visual quality ratings from April to November. All data taken were visual observations of turf characteristics and performance. Quality ratings were taken using a scale of 1 to 9 with 1 = no living turf, 5 = acceptable turf, and 9 = ideal turf. Color was rated on a scale of 1 to 9 where 1 = light green and 9 = dark green. Dollar spot was rated on a scale of 1 to 9 where 1 = susceptible and 9 = resistant. Density was rated visually on a scale of 1 to 9 where 1 = bare and 9 = maximum.

Results:

- There are no statistical differences in average visual quality among the top 14 cultivars (Table 1).
- When making cultivar selections, it is best to consult the NTEP web page at www.ntep.org for complete performance data from around the country on cultivars, placing special emphasis on how cultivars perform in IN, IL, KY, MI and/or OH (depending if you are located in northern, central, or southern IN) under the specific maintenance regime you intend for that grass.

Acknowledgments

This research was supported by the National Turfgrass Evaluation Program and The Midwest Regional Turf Foundation.

Table 1. Visual quality, genetic color, summer density, fall density and dollar spot resistance of 32 bentgrass cultivars growing under greens maintenance in 2005.

Cultivar	Visual quality ^a									Genetic Color ^b	Leaf Texture ^c	Summer density ^d	Fall density	Dollar Spot resistance ^e
	April	May	June	July	Aug	Sep	Oct	Nov	Avg					
T-1	8.0	8.3	9.0	8.3	8.3	8.7	8.7	7.7	8.4	9.0	8.0	8.0	8.3	7.0
007 (DSB)	7.7	8.3	8.3	8.0	7.7	8.3	8.7	8.3	8.2	8.0	8.0	8.3	8.3	8.7
Authority (235050)	7.7	8.0	8.3	8.3	8.0	9.0	8.7	7.7	8.2	8.3	8.0	8.3	8.3	7.7
Benchmark DSR	8.0	8.3	8.3	8.3	7.7	8.0	9.0	8.0	8.2	8.3	7.3	8.0	8.7	9.0
Shark (23R)	8.0	8.3	8.3	8.0	8.0	8.7	8.7	7.3	8.2	8.3	7.7	8.3	9.0	7.3
Alpha	7.7	7.3	7.7	8.3	8.0	8.3	8.7	7.7	8.0	8.0	7.3	8.0	7.7	8.0
Bengal	7.7	8.0	8.3	8.3	8.0	7.7	8.7	7.3	8.0	8.0	7.3	7.7	8.0	6.3
Declaration	8.0	8.0	8.3	8.3	6.7	8.3	8.7	8.0	8.0	8.3	7.7	7.0	8.3	8.7
Independence	8.3	7.7	8.0	8.3	7.7	8.0	8.7	7.0	8.0	8.0	7.3	8.3	7.7	6.3
IS-AP 9	7.7	8.0	7.7	8.0	7.7	8.0	8.3	8.3	8.0	8.7	8.0	8.0	8.3	9.0
Kingpin (9200)	7.7	8.0	8.3	8.3	7.7	8.0	8.3	7.7	8.0	7.7	7.3	8.7	8.7	8.3
MacKenzie (5RX1GPD)	8.0	8.0	8.0	8.0	8.0	8.3	8.7	7.3	8.0	7.7	8.0	9.0	8.3	7.3
Penn A-1	7.7	7.7	7.7	8.3	8.3	8.3	8.7	7.3	8.0	9.0	7.3	7.7	8.3	8.3
Tyee (SRX 1GD)	8.7	7.3	7.7	8.0	8.0	8.3	8.7	7.3	8.0	7.7	8.0	8.7	9.0	7.3
CY-2	7.0	7.0	8.0	8.3	7.7	8.3	8.7	8.3	7.9	7.7	7.0	7.3	8.3	9.0
LS-44	8.0	8.0	8.3	8.3	7.3	7.7	8.0	7.7	7.9	9.0	7.3	7.3	8.3	8.7
Memorial (A03-EDI)	8.0	7.7	7.3	8.0	7.7	7.3	8.0	7.7	7.7	8.0	6.7	7.3	8.3	9.0
Penn A-4	7.3	7.7	8.0	8.7	8.0	8.3	7.7	5.3	7.6	8.7	7.0	8.0	8.0	4.0
13-M	7.3	6.7	7.7	7.3	7.3	7.3	8.3	7.7	7.5	7.3	7.3	7.0	7.0	9.0
L-93	6.7	7.0	7.0	7.3	6.7	7.7	7.7	6.7	7.1	8.7	6.0	7.3	7.0	8.7
Backspin	6.7	7.0	7.7	8.3	6.7	7.3	8.0	5.3	7.1	7.0	6.3	6.0	7.0	2.7
Pennlinks II	7.0	6.7	6.0	7.3	6.7	6.3	7.3	6.7	6.8	8.3	5.7	5.7	6.7	8.3
Providence	7.0	6.3	6.0	7.0	5.7	7.0	7.7	7.0	6.7	8.3	5.3	5.3	6.3	5.3
Crenshaw	7.0	6.7	7.0	7.7	6.7	6.7	6.7	4.7	6.6	9.0	6.0	6.7	6.7	2.0
Pennlinks	6.7	6.7	6.0	7.0	6.0	6.0	7.0	6.7	6.5	8.3	6.0	5.0	6.3	9.0
Penncross	6.3	6.3	6.0	6.7	5.3	6.3	6.0	6.0	6.1	8.3	5.3	5.0	5.7	7.0
Villa (IS-AC1)	5.3	5.0	5.7	6.7	5.0	4.0	5.0	5.3	5.3	7.0	9.0	8.0	9.0	9.0
Greenwich	5.0	4.3	4.3	5.7	5.3	5.0	4.7	5.0	4.9	7.0	9.0	8.0	9.0	9.0
Legendary	4.3	4.3	5.3	5.7	4.3	4.3	4.3	5.0	4.7	6.7	9.0	8.0	9.0	9.0
Venus (EFD)	4.3	4.3	5.3	5.3	4.3	4.3	4.0	5.0	4.6	7.0	8.7	7.7	9.0	9.0
Vesper	4.0	4.0	4.7	6.0	4.0	4.3	4.7	5.3	4.6	7.0	9.0	7.7	9.0	9.0
SR 7200	4.3	3.7	4.0	5.0	4.0	4.3	4.0	5.7	4.4	7.0	9.0	8.0	8.3	9.0
LSD (0.05)	0.9	1.1	0.8	1.0	0.8	0.8	0.8	1.2	0.4	0.7	0.7	0.9	0.8	2.2

^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 Color was rated on a scale of 1 to 9 where 1 = light green and 9 = dark green.

^c Leaf texture was rated visually on a scale of 1 to 9 where 1 = coarse bladed and 9 = very fine bladed.

^d Summer and fall density was rated on a scale of 1 to 9 where 1 = bare ground and 9 = maximum.

^e Dollar spot and pythium resistance were rated visually on a scale of 1 to 9 where 1 = susceptible and 9 = resistant.