

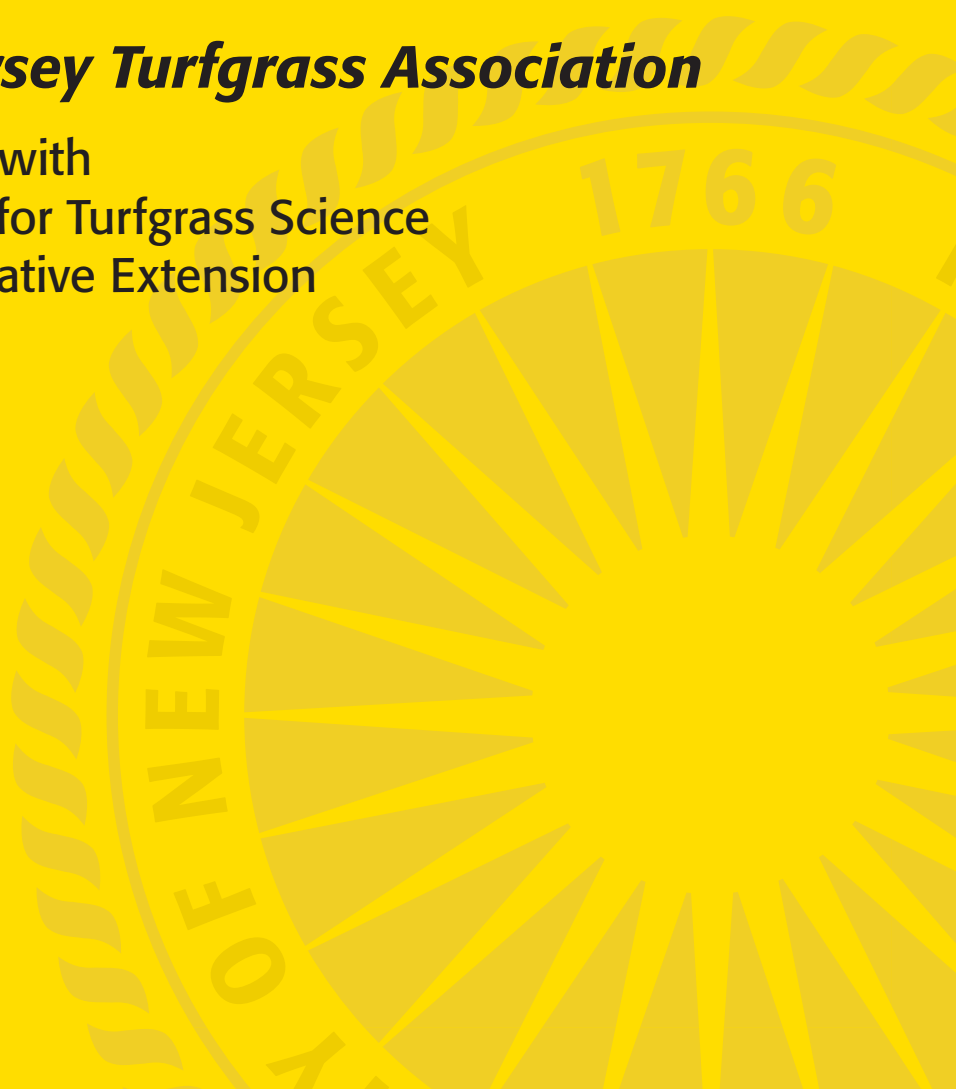
# RUTGERS

New Jersey Agricultural  
Experiment Station

## **2006 Turfgrass Proceedings**

***The New Jersey Turfgrass Association***

In Cooperation with  
Rutgers Center for Turfgrass Science  
Rutgers Cooperative Extension



# **2006 RUTGERS TURFGRASS PROCEEDINGS**

**of the**

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The Rutgers Turfgrass Proceedings is published yearly by the Rutgers Center for Turfgrass Science, Rutgers Cooperative Extension, and the New Jersey Agricultural Experiment Station, School of Environmental and Biological Sciences, Rutgers, The State University of New Jersey in cooperation with the New Jersey Turfgrass Association. The purpose of this document is to provide a forum for the dissemination of information and the exchange of ideas and knowledge. The proceedings provide turfgrass managers, research scientists, extension specialists, and industry personnel with opportunities to communicate with co-workers. Through this forum, these professionals also reach a more general audience, which includes the public.

This publication includes lecture notes of papers presented at the 2006 New Jersey Turfgrass Expo. Publication of these lectures provides a readily avail-

able source of information covering a wide range of topics and includes technical and popular presentations of importance to the turfgrass industry.

This proceedings also includes research papers that contain original research findings and reviews of selected subjects in turfgrass science. These papers are presented primarily to facilitate the timely dissemination of original turfgrass research for use by the turfgrass industry.

Special thanks are given to those who have submitted papers for this proceedings, to the New Jersey Turfgrass Association for financial assistance, and to Barbara Fitzgerald and Marlene Karasik for administrative and secretarial support.

Dr. Ann Brooks Gould, Editor  
Dr. Bruce B. Clarke, Coordinator

# PERFORMANCE OF BENTGRASS CULTIVARS AND SELECTIONS IN NEW JERSEY TURF TRIALS

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Bentgrass species have the distinct ability to form very dense, uniform, and fine textured surfaces under an extremely low height of cut. Because of these unique qualities, bentgrasses can be used in specialized, high maintenance areas such as golf course fairways, tees, and putting greens. There are three bentgrass species typically used for turf. These include creeping bentgrass (*Agrostis palustris* Huds.; synonym = *A. stolonifera* L.), colonial bentgrass (*A. tenuis* L. or *A. capillaris* L.), and velvet bentgrass (*A. canina* L.). Used less frequently, highland or dryland bentgrass (*A. castellana* Boiss. & Reut.) can be options for turf in stressful areas. Creeping and velvet bentgrasses are best conditioned for the very low cutting heights required for golf course greens in the United States. Colonial bentgrass, which does best with a slightly greater height of cut, is better suited for fairways in temperate areas of the United States.

Creeping bentgrass, which is highly stoloniferous and has a prostrate growth habit, persists under very low mowing heights (up to 1/8 of an inch or less). Since this species is well adapted to both cool-temperate as well as warm-humid regions of the United States, it is the most popular species used on golf course putting greens. Its vigorous, spreading growth habit also contributes to its ability to repair damaged areas quickly. In 1954, H.B. Musser released Penncross, the first seeded variety of creeping bentgrass (Musser, 1959). Since that time, breeding efforts have markedly improved creeping bentgrass varieties to withstand the increasing demands of the game of golf, addressing the need for better turf quality, darker green color, improved shoot density, improved traffic tolerance and recuperative ability, and increased disease and stress tolerances. Dollar spot (caused by the fungus *Sclerotinia homoeocarpa*) is one of the main disease problems of close-cut creeping bentgrass.

Colonial bentgrass, also referred to as browntop, has traditionally been used as a lawn and golf course grass in areas of Northern Europe and New Zealand that have mild (cool and humid) summers. Compared to creeping bentgrass, Colonial bentgrass has a finer leaf texture, a more upright growth habit, and spreads less aggressively. In addition, this bentgrass is generally better adapted for fairway or tee use in the warmer summer climates of the United States. Colonial bentgrass performs best in New Jersey when mowed no lower than 3/8 of an inch. Compared to creeping bentgrass, colonial bentgrass has a brighter green color and better color retention during cool weather, resistance to dollar spot, and wear tolerance. However, this turfgrass is much more susceptible to brown patch (caused by the fungus *Rhizoctonia solani*). While brown patch is not lethal, the playability of golf courses may be affected if the disease is not controlled. Current breeding efforts include improving the tolerance of colonial bentgrasses to this disease.

Velvet bentgrass forms the finest-textured and most dense turf of the bentgrasses and can nearly resemble green velvet when managed properly. It spreads by profusely producing erect tillers with short stolons. This grass can tolerate very close mowing, heat, cold, and shade, and is one of the most drought resistant of the bentgrasses used for turf (Skogley, 1973). Due to the density and vigor of this turf, even under very low mowing conditions, velvet bentgrass is less susceptible to the encroachment of *Poa annua*, the most prolific weed on a golf course. The spread of velvet bentgrass via stolons is more aggressive than colonial bentgrass, but is less aggressive than creeping bentgrass. Velvet bentgrass can form excessive thatch, especially at higher fertility and cutting heights, and can thus become problematic if not maintained properly. This species is also suscep-

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tible to red thread (caused by *Laetisaria fuciformis*) and copper spot (caused by *Gloeocercospora sorghi*), but has good resistance to dollar spot and brown patch. Seedlings of velvet bentgrass are susceptible to Pythium root rot during establishment.

During the colder weather, velvet bentgrass turf will turn a dark purple color and will take longer than the other bentgrass species to green-up in the spring. Velvet bentgrass has not been used extensively for high maintenance turf, largely because its range of adaptation has not been well characterized. Selections of velvet bentgrass have persisted for many years in trials under New Jersey growing conditions. Recent research at Rutgers indicates that the species may one day serve as a viable alternative to creeping bentgrass for use on golf course greens, as long as proper cultural management inputs are implemented. Early indications are that a lower fertility requirement is needed to maintain a velvet bentgrass turf when compared to one with creeping bentgrass under the same conditions. Some of the major breeding objectives for velvet bentgrass include tolerance to copper spot, Pythium root rot, and wear.

The New Jersey Agricultural Experiment Station participates in the National Turfgrass Evaluation Program (NTEP), which evaluates many species of turfgrass, including bentgrass, at various locations throughout the United States. The Rutgers turfgrass breeding program conducts extensive field evaluations of collections and new material developed in the improvement program, many of which were recently collected throughout the United States, Europe, and Asia. Collections from Norway, Sweden, Spain, Portugal, France, Finland, Switzerland, Scotland, Italy, Greece, Poland, Holland, Bulgaria, Romania, Croatia, China, and the Slovak Republic, which are the centers of origin for many turf species used in the United States, serve to enhance the genetic diversity of the germplasm used in this breeding program. The Rutgers turfgrass breeding program focuses on improving turfgrasses for overall quality, color, density, uniformity, texture, disease resistance, salt tolerance, traffic tolerance, and many other aspects of turf grown for a variety of purposes.

## PROCEDURES

Bentgrass evaluation trials were established at the Rutgers Horticultural Research Farm II in North Brunswick, NJ in the fall of 2002 (Tables 1 and 2), 2003 (Tables 3 through 5), 2004 (Tables 6 and 7), and 2005 (Tables 8 and 9). Two of the trials planted

in the fall of 2003 (Tables 3 and 4) included all entries of the 2003 National Bentgrass Test coordinated by NTEP. Trials were established on a modified Nixon loam, except the 2003 NTEP putting green trial (Table 3), which was seeded on a sand root-zone built to USGA (1993) specifications. Plot size was 3 x 5 ft for all trials, except the 2003 NTEP trials (greens and fairway/tee) which were 4 x 6 ft. Plots were hand-seeded at a rate of approximately 0.5 lb seed/1000 ft<sup>2</sup>. All tests were arranged in a randomized complete block design with three replications.

All sites were well drained and openly exposed to both sunlight and air circulation (with the exception of the 2003 NTEP putting green trial, which had reduced air circulation due to a depressed site location surrounded by trees). The annual rate of nitrogen applied, mowing height, cultivation/topdressing practices, and pesticide applications for each test are presented in Table 10. The putting green tests were mowed five to six times per week during periods of active growth with a triplex or walk-behind reel mower equipped to collect clippings. The fairway tests were mowed and clippings were removed three times per week with a triplex reel mower during periods of active growth. Soil pH was maintained in the range of 6.0 to 6.5 with agricultural limestone. All tests were irrigated to avoid drought stress.

Plots were evaluated frequently during the growing season for overall turf quality (i.e., turf density, texture, uniformity, color, growth habit, and damage due to diseases and insects). Turf quality, wear tolerance, spring green-up, color, density, and disease were rated on a 1 to 9 scale, where 9 represents the most desirable turf characteristic. Disease ratings included brown patch (Tables 4, 5, 7, 8, and 9), dollar spot (Tables 4, 5, 6, and 9), and copper spot (Table 8). All data were subjected to analysis of variance. Means were separated using Fisher's protected least significant difference (LSD) means separation test.

## RESULTS AND DISCUSSION

### Turf Quality Evaluations

Entries in Tables 1 through 7 and 9 are ranked according to their overall multi-year quality average. Entries in Table 8 are ranked by turf quality averaged in 2006. Throughout the years that this characteristic has been evaluated, a few varieties from each bentgrass species have performed better than the rest. For creeping bentgrasses maintained at a putting green height of cut, Authority, Declaration,

Tyee, and Shark all performed very well, while Penncross, Providence, Pennlinks, Viper, and Crenshaw did not. At a fairway height, Authority, Benchmark, and Declaration creeping bentgrasses exhibited excellent turf quality, while the poorest rated cultivars were Providence, Viper, Penncross, and Crenshaw.

Velvet bentgrasses have also been evaluated for overall turf quality every year. The cultivars Venus, Greenwich, and Villa were among the highest rated in every putting green test in which they were entered. Although the cultivar SR 7200 fared poorly under a 1/8-inch height of cut, it performed as well as Greenwich and Villa under fairway height conditions. The Velvet bentgrass cultivar Barbella and the experimental selection PST-VE52 Bulk did not rate well for turf quality on fairways.

Turf quality was also evaluated for colonial bentgrass. As mentioned previously, colonial bentgrass performs better at fairway cutting heights and has poor quality under putting green conditions. The experimental selections 04-EBM Comp, BCD Comp, PST-Syn-9BC3, and HCG Comp all received high scores, while Bardot, PST-9IR, SRX 781-21, and PST-Syn-9505 did not rate well under fairway cutting heights.

### **Dollar Spot**

In susceptible turfgrasses, *Sclerotinia homoeocarpa* causes spots of dead turf the size of silver dollars. While potentially one of the more damaging turf diseases on golf courses in New Jersey, dollar spot can be easily controlled with the use of fungicides. Unfortunately, disease control can be expensive because dollar spot occurs so frequently, and resistance of the causal agent to fungicides has become more prevalent. In addition, increased fungicide use is not beneficial to the environment. Breeding for dollar spot resistance in bentgrass is an important objective of the Rutgers turfgrass breeding program. Although velvet and colonial bentgrasses are more resistant to dollar spot than creeping bentgrass, the results from recent trials indicate that disease resistance in creeping bentgrass has significantly improved. The creeping bentgrasses Declaration, Kingpin, Benchmark DSR, PST-020 Bulk, and PST-ORR Bulk all rated well for resistance in the 2003 fairway trial (Table 5). Topping the list of the most resistant varieties to this disease in the 2005 fairway test included the velvet bentgrasses CP3 Comp, Villa, and IS-AC-4, Declaration creeping bentgrass, and

colonial bentgrasses FT1 Comp and SRX 7EE (Table 9). The most susceptible selections included Independence and Crenshaw creeping bentgrasses.

### **Brown Patch**

Among the bentgrass species used for turf, velvet bentgrass is typically the most tolerant to brown patch, while colonial bentgrass is the most susceptible. Brown patch ratings were lowest for Kingpin creeping bentgrass and Greenwich velvet bentgrass in the 2003 fairway trial (Table 5), and Greenwich continued to perform well in the 2004 and 2005 fairway trials (Table 7 and 9). In the 2003 fairway trial, a few colonial bentgrasses such as PST-9IR, SRX 781-21, Heriot, SRX 7EE4, and PST-9NG-Bulk were especially susceptible to the disease. In the 2004 trial (Table 7), Viper creeping bentgrass was most susceptible, while in the 2005 trial (Table 9), Penncross and Putter creeping bentgrass sustained the most damage from this disease.

A major emphasis of the Rutgers breeding program has been to improve resistance to brown patch in colonial bentgrass, with dramatic results. In the 2005 fairway trial (Table 9), FT1 Comp colonial bentgrass, specifically selected for brown patch resistance, was much more tolerant of the disease than the standard cultivars SR 7150, SR 7100, Alister, and Tiger II. In the 2004 fairway trial (Table 7), colonial bentgrass BCD Comp was most resistant to the disease, while SRX 7EE5 was most susceptible.

### **Copper Spot**

In the northeast, copper spot has become increasingly troublesome during late spring and early summer due to the warm, wet conditions typical of that time of the year. *Gloeocercospora sorghi* is a fungus that produces 3- to 4-inch, red-brown patches on the turf. In the 2005 putting green trial (Table 8), colonial bentgrass was more resistant to copper spot than both velvet and creeping bentgrasses. Breeding velvet bentgrass cultivars with resistance to copper spot has been an important objective for the Rutgers breeding program. Selections with improved resistance compared to standard cultivars include CP1 Comp, CP2 Comp, and CP3 comp (Table 8).

### **Spring Green-Up**

Spring green-up was evaluated for the 2003 and 2004 putting green trials (Tables 3 and 6) and the 2003 fairway trial (Table 5). Compared to colonial



and creeping bentgrasses, velvet bentgrass does not green up well in the spring and may even exhibit a reddish color during cold winter months. Several creeping bentgrass entries that evaluated well for spring green-up included Kingpin and Benchmark DSR. SR7200 velvet bentgrass was rated best among all of the velvet bentgrass entries. The lowest rated entries were Crenshaw creeping bentgrass and Barbella velvet bentgrass.

### **Turf Density**

Turfgrass density was measured for the 2003 NTEP putting green and fairway trials in October (Tables 3 and 4). The density measurement quantifies the number of shoots per unit area. Overall, turfgrass density in velvet bentgrass exceeds that of creeping and colonial bentgrass species. In the 2003 trials, Villa and SR 7200 velvet bentgrasses rated best for density, while Shark, MacKenzie, and Authority performed the best of the creeping bentgrasses (Table 3 and 4). As breeding efforts have included a push to increase turf density, as expected, older varieties such as the creeping bentgrasses Penncross, Seaside, and Pennlinks II received the lowest ratings for this trait.

### **Genetic Color**

Genetic color was evaluated in October for the 2003 NTEP putting green and fairways trials (Tables 3 and 4). High ratings are associated with plots that have a dark green color, while lighter green or yellowish plots receive lower ratings. Typically, velvet and colonial bentgrasses have a light green color, while creeping bentgrasses are darker green and, in some cases, exhibit an almost blue-green coloration. In the putting green trial (Table 3), T-1 and LS-44 creeping bentgrasses were darker green compared to Imperial and Penncross, which were the lightest in color. T-1 also rated highly for dark green color in the fairway trial (Table 4), while Seaside creeping bentgrass and Bardot colonial bentgrass scored the lowest.

### **Wear Tolerance**

The ability of a turf stand to handle wear is one of the more important traits in maintaining the long-term quality and playability of the surface. Wear to turfgrass can be applied by driving machinery or

walking on the turf or through cultivation procedures. Wear was simulated on the 2002 and 2003 fairway studies (Table 2 and 5) by using a novel wear simulator (Bonos et al, 2001), which is an engine-driven device with rotating rubber paddles that repeatedly hit the turf. Plots of different cultivars were rated for their ability to remain green and dense under these conditions. HCG Comp colonial bentgrass and Venus velvet bentgrass did well in the 2002 trial, and SRX 7CRCO colonial bentgrass performed the best for wear tolerance in the 2003 trial. In the 2002 trial, plots of Providence and Century creeping bentgrass and PST-Syn-9PIN colonial bentgrass had very little remaining living turf after exposure to harsh wear conditions.

### **ACKNOWLEDGMENTS**

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Table 1. Performance of bentgrass cultivars and selections in a putting green trial seeded in September 2002 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----				
			2003-2006 Avg.	2003 Avg.	2004 Avg.	2005 Avg.	2006 Avg.
1	007	Creeping	6.6	7.0	7.0	5.9	6.5
2	Authority	Creeping	6.5	6.7	6.4	6.0	6.7
3	Villa	Velvet	6.3	6.2	7.0	6.2	5.9
4	Venus	Velvet	6.3	6.8	6.5	6.4	5.6
5	Tyee	Creeping	6.1	5.6	6.7	6.0	6.1
6	C953	Creeping	6.1	6.4	6.6	5.5	5.9
7	HTL Comp	Creeping	6.1	6.1	6.0	6.1	6.0
8	Declaration	Creeping	6.0	6.8	5.9	5.8	5.6
9	MacKenzie	Creeping	6.0	6.0	6.4	5.5	6.2
10	Greenwich	Velvet	5.9	5.9	6.5	5.7	5.6
11	SRX G299D	Creeping	5.9	5.2	5.8	5.6	6.8
12	C952	Creeping	5.8	6.6	6.4	4.8	5.5
13	SRX G295D	Creeping	5.7	5.6	6.3	5.2	5.8
14	Cobra II	Creeping	5.7	6.6	5.6	5.2	5.4
15	SRX 19294D	Creeping	5.7	5.8	5.9	5.1	5.8
16	Vesper	Velvet	5.7	6.0	6.3	5.6	4.9
17	13M	Creeping	5.7	5.5	5.4	6.1	5.8
18	00BAG	Velvet	5.6	6.7	6.4	5.2	4.0
19	SRX 1SQZG	Creeping	5.5	5.6	5.5	5.1	5.9
20	SRX 1G49	Creeping	5.5	5.0	5.1	5.6	6.1
21	CIS-AP-12	Creeping	5.4	5.6	5.5	5.2	5.2
22	HTM Comp	Creeping	5.4	5.4	5.1	5.7	5.4
23	SRX 146-12	Creeping	5.3	4.9	4.7	6.0	5.7
24	SRX 1TR3E	Creeping	5.3	5.6	5.8	4.9	5.0
25	SRX G222	Creeping	5.2	4.9	5.1	5.1	5.7
26	PST OEB	Creeping	5.2	5.7	5.2	5.1	4.8
27	Penn G-2	Creeping	5.2	5.6	5.2	4.9	5.1
28	SRX 1G57	Creeping	5.2	5.3	4.9	5.1	5.5
29	SRX 1G68	Creeping	5.2	6.0	4.9	4.8	5.0
30	NuPenn	Creeping	5.2	5.5	5.0	4.9	5.3
31	SRX 1TRUG	Creeping	5.1	5.3	5.1	4.9	5.3
32	Benchmark DSR	Creeping	5.1	6.3	5.6	4.7	4.0
33	SRX 1G32	Creeping	5.1	5.5	4.8	4.8	5.3
34	Penn G-6	Creeping	5.1	5.6	4.7	4.5	5.4
35	SRX 1G56	Creeping	5.0	5.2	4.8	4.6	5.6

(Continued)

Table 1 (continued).

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----				
			2003-2006 Avg.	2003 Avg.	2004 Avg.	2005 Avg.	2006 Avg.
36	Penn A-1	Creeping	5.0	5.7	4.9	4.8	4.8
37	SRX 1W1G	Creeping	5.0	5.4	4.8	5.0	5.0
38	Kingpin	Creeping	5.0	5.6	5.4	4.7	4.3
39	SRX 1W1CR1G	Creeping	4.9	5.4	4.4	5.2	4.8
40	Penn G-1	Creeping	4.9	5.2	5.1	4.8	4.8
41	Penn A-2	Creeping	4.9	5.4	4.6	4.9	4.7
42	CIS-AP-13	Creeping	4.9	4.8	5.1	4.8	4.9
43	Independence	Creeping	4.9	5.3	4.3	4.8	5.2
44	PST SynORO	Creeping	4.9	4.8	4.4	5.3	5.1
45	SR 1150	Creeping	4.8	5.4	5.2	4.8	4.0
46	SR 7200	Velvet	4.8	6.3	5.3	4.5	3.0
47	Bar As2	Creeping	4.8	5.2	4.5	5.0	4.3
48	CBA-98	Creeping	4.7	5.4	4.1	4.5	4.8
49	CIS-AP-10	Creeping	4.7	5.1	4.4	4.7	4.9
50	Penn A-4	Creeping	4.7	4.9	4.8	4.5	4.6
51	SRX 1HPink	Creeping	4.7	5.4	4.3	4.6	4.3
52	SRX 1HBlue	Creeping	4.6	5.1	4.6	4.5	4.5
53	Pick Syn96-2	Creeping	4.6	5.4	3.9	4.7	4.4
54	SRX 1BPAA	Creeping	4.5	5.4	4.2	4.5	4.2
55	SRX 1BL2G	Creeping	4.5	5.6	5.4	3.7	3.3
56	Penneagle	Creeping	4.5	4.8	4.2	5.0	4.2
57	SRX 1HSilver	Creeping	4.4	5.1	4.0	4.2	4.4
58	Pick ECB	Creeping	4.4	4.9	4.0	4.6	4.4
59	SRX 1BL3G	Creeping	4.4	5.1	4.3	4.0	4.3
60	Southshore	Creeping	4.4	4.6	4.2	4.4	4.4
61	PST Syn ORM6	Creeping	4.4	4.8	4.0	4.3	4.5
62	SR 1119	Creeping	4.3	5.0	3.8	4.1	4.3
63	Seaside II	Creeping	4.3	4.4	4.1	4.3	4.4
64	SRX 1R1G1	Creeping	4.3	4.9	3.9	4.3	4.0
65	Bengal	Creeping	4.3	4.7	4.3	4.4	3.7
66	SRX 1LA1G	Creeping	4.1	4.6	3.9	4.3	3.8
67	AZBC	Creeping	4.0	4.5	3.8	4.0	3.9
68	PST OX5Bulk	Creeping	4.0	4.2	3.8	4.4	3.9
69	L-93	Creeping	4.0	4.5	3.5	4.1	4.2
70	SRX 117-23	Creeping	4.0	4.6	3.7	4.2	3.4

(Continued)



Table 1 (continued).

Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----					
		2003-2006 Avg.	2003 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	
71	Pennlinks II	Creeping	4.0	5.6	4.1	3.5	2.9
72	Backspin	Creeping	4.0	4.3	3.4	4.3	4.2
73	SRX 1KOP1E	Creeping	4.0	4.3	4.1	3.7	3.9
74	Pennlinks	Creeping	3.9	4.0	3.2	4.5	4.1
75	Pennway	Creeping	3.9	3.7	3.8	4.1	4.0
76	CBNGS02	Creeping	3.8	4.6	3.6	3.6	3.5
77	Brighton	Creeping	3.8	4.1	3.2	4.2	3.5
78	CATO	Creeping	3.8	4.8	3.4	3.6	3.3
79	CBC-02	Creeping	3.7	3.4	3.0	4.3	4.1
80	MBGC-02	Creeping	3.7	4.5	2.9	3.7	3.6
81	Penn Trio	Creeping	3.6	3.8	3.3	3.7	3.5
82	BGS94-96-02	Creeping	3.5	4.5	3.0	3.5	3.0
83	Providence	Creeping	3.3	3.7	2.9	3.4	3.4
84	Tiger II	Colonial	3.3	4.6	2.6	3.4	2.8
85	Penncross	Creeping	3.3	3.8	2.8	3.2	3.4
86	Viper	Creeping	3.0	3.8	2.7	3.1	2.6
87	Trueline	Creeping	2.9	4.1	2.3	2.8	2.3
88	18th Green	Creeping	2.6	3.6	1.8	2.2	2.6
89	Kromi	Creeping	1.6	2.2	1.2	1.5	1.5
LSD at 5% =			0.6	0.7	0.8	0.8	1.0

<sup>1</sup>9 = best turf quality

Table 2. Performance of bentgrass cultivars and selections in a fairway/tee trial seeded in September 2002 at North Brunswick, NJ.

	Cultivar or Selection	Species	Turf Quality <sup>1</sup>					Worn Turf Quality <sup>2</sup> 2006
			2003-2006 Avg.	2003 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	
1	Venus	Velvet	5.8	7.2	5.2	5.3	5.5	7.5
2	HCG Comp	Colonial	5.7	5.8	5.7	5.2	6.2	7.7
3	SR 7200	Velvet	5.6	7.0	5.8	4.8	5.0	6.1
4	HCF Comp	Colonial	5.4	5.0	5.6	5.0	5.8	6.8
5	CIS-AT-7	Colonial	5.2	5.6	4.7	4.2	6.0	5.7
6	PST-9BNC	Colonial	5.0	5.1	5.3	4.6	5.2	6.0
7	SRX 7CRCO	Colonial	5.0	5.6	4.8	4.3	5.3	5.2
8	Benchmark DSR	Creeping	5.0	6.6	4.1	3.6	5.5	4.8
9	Glory	Colonial	5.0	4.6	5.1	5.2	5.0	4.9
10	PST-Syn-9LN	Colonial	5.0	5.3	5.1	4.7	5.0	6.0
11	Viter	Colonial	4.9	4.9	5.8	4.8	4.0	3.7
12	C952	Creeping	4.8	6.1	5.0	3.3	4.5	5.5
13	Tiger II	Colonial	4.8	5.0	4.3	4.6	5.3	4.7
14	EWTR Comp	Colonial	4.8	5.1	5.1	4.1	4.8	4.1
15	C953	Creeping	4.7	6.2	5.3	2.6	4.7	4.2
16	Authority	Creeping	4.7	6.2	5.5	2.7	4.3	5.9
17	SRX 7EE	Colonial	4.7	4.9	4.8	4.0	5.0	5.9
18	Alister	Colonial	4.6	4.6	4.9	4.4	4.3	5.6
19	SRX 781-3	Colonial	4.6	4.9	4.4	4.2	4.8	4.0
20	SRX 7E	Colonial	4.5	5.2	5.0	3.8	4.2	4.0
21	PST-Syn-9PY	Colonial	4.5	4.5	4.2	4.3	4.8	4.9
22	PST-9VN Bulk	Colonial	4.4	4.6	4.3	4.0	4.5	3.8
23	Kingpin	Creeping	4.4	5.7	4.3	3.0	4.5	4.6
24	SRX 1G57	Creeping	4.3	4.9	3.9	3.0	5.3	6.3
25	CIS-AT-6	Colonial	4.3	5.0	4.2	3.8	4.2	5.4

(Continued)

Table 2 (continued).

	Cultivar or Selection	Species	Turf Quality <sup>1</sup>					Worn Turf Quality <sup>2</sup> 2006
			2003-2006 Avg.	2003 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	
26	PST-9VL Bulk	Colonial	4.3	5.5	4.4	3.8	3.5	3.0
27	Sandhill	Creeping	4.2	5.4	4.6	3.4	3.5	3.1
28	SRX 780-19	Colonial	4.2	4.1	4.1	4.2	4.5	3.8
29	SRX 7MOBB	Colonial	4.2	4.7	3.9	3.9	4.3	3.3
30	SRX 7EE4	Colonial	4.1	5.2	4.2	3.6	3.5	3.7
31	Penn A-4	Creeping	4.1	4.9	3.7	3.2	4.5	4.8
32	CIS-AP-10	Creeping	4.1	5.2	4.1	3.0	4.2	4.9
33	SRX 7EE5	Colonial	4.1	5.0	4.2	3.6	3.7	4.6
34	PST-SynA1U	Colonial	4.1	5.3	4.0	2.8	4.3	4.0
35	CIS-AP-12	Creeping	4.0	5.1	4.1	2.5	4.3	6.0
36	SRX 1G32	Creeping	4.0	4.6	4.1	2.5	4.8	5.1
37	SRX 1W1CR1G	Creeping	4.0	4.5	3.7	3.4	4.3	5.2
38	SRX 1Pink	Creeping	4.0	5.0	3.4	3.2	4.3	3.5
39	SRX 7MODD	Colonial	3.9	5.0	4.2	3.4	3.2	4.0
40	SRX 146-12	Creeping	3.9	4.5	3.2	3.3	4.5	5.2
41	SRX 1HBlue	Creeping	3.8	4.7	2.8	3.3	4.5	4.7
42	SRX 1HSilver	Creeping	3.8	5.3	3.7	3.1	3.2	3.3
43	SRX 781-21	Colonial	3.8	4.1	3.3	4.0	3.8	3.2
44	Brighton	Creeping	3.8	4.5	3.4	3.8	3.3	3.9
45	SRX 117-23	Creeping	3.7	4.3	3.6	2.8	4.2	5.3
46	Independence	Creeping	3.6	4.9	2.7	2.8	4.2	4.9
47	Trueline	Creeping	3.6	5.0	3.6	2.9	3.0	3.2
48	SRX 1G49	Creeping	3.6	4.7	3.5	2.2	4.0	5.4
49	SRX 1G68	Creeping	3.6	5.2	2.9	2.4	3.8	5.8
50	SR 1119	Creeping	3.5	4.7	3.1	3.1	3.2	3.2

(Continued)

Table 2 (continued).

Cultivar or Selection	Species	Turf Quality <sup>1</sup>					Worn Turf Quality <sup>2</sup> 2006
		2003-2006 Avg.	2003 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	
51 Backspin	Creeping	3.5	4.3	3.2	2.7	3.7	4.8
52 Providence	Creeping	3.5	4.2	3.4	3.5	2.8	2.3
53 SRX 1G56	Creeping	3.4	4.8	3.6	2.1	3.0	4.9
54 Pennncross	Creeping	3.3	3.7	3.3	3.3	2.8	2.9
55 Viper	Creeping	3.3	4.5	3.0	3.0	2.5	3.0
56 PST-Syn-9NE	Colonial	3.1	2.6	2.7	3.4	3.7	3.2
57 18th Green	Creeping	2.6	3.6	1.9	1.9	2.8	2.9
LSD at 5% =		0.5	0.8	0.8	0.5	1.3	1.3

<sup>1</sup>9 = best turf quality

<sup>2</sup>9 = best turf quality under wear

Table 3. Performance of bentgrass cultivars and selections in a putting green trial established in September 2003 at North Brunswick, NJ. (Includes all entries of the National Bentgrass Putting Green Test - NTEP.)

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----				Spring Green-up <sup>2</sup> March 2006	Genetic Color <sup>3</sup> Oct. 2006	Turf Density <sup>4</sup> Oct. 2006
			2004-2006 Avg.	2004 Avg.	2005 Avg.	2006 Avg.			
1	Villa	Velvet	7.5	7.9	7.5	7.2	1.3	4.3	8.7
2	Legendary	Velvet	7.5	7.7	7.2	7.5	1.0	4.7	8.3
3	Tyee	Creeping	7.1	7.2	6.8	7.3	7.7	6.7	7.7
4	Venus	Velvet	6.9	7.2	7.2	6.3	1.0	3.7	7.3
5	Greenwich	Velvet	6.9	7.4	6.7	6.5	1.0	4.3	8.3
6	Shark	Creeping	6.7	6.7	6.5	6.9	7.7	4.7	7.0
7	Vesper	Velvet	6.7	7.3	7.0	5.9	2.0	4.7	7.7
8	CY-2	Creeping	6.5	6.7	6.4	6.5	7.3	5.7	6.3
9	Penn G-2	Creeping	6.5	6.7	6.5	6.3	7.7	4.0	6.7
10	MacKenzie	Creeping	6.4	6.3	5.9	6.9	8.3	5.0	7.0
11	Independence	Creeping	6.4	6.4	6.1	6.7	6.3	5.7	6.0
12	Authority	Creeping	6.3	6.5	6.3	6.1	6.7	4.0	5.7
13	Declaration	Creeping	6.3	6.7	6.5	5.6	9.0	4.3	6.7
14	Penn A-2	Creeping	6.2	6.1	6.6	6.0	5.7	5.0	6.7
15	Penn A-1	Creeping	6.1	6.1	6.0	6.0	4.7	5.7	6.3
16	HTM Comp	Creeping	6.0	5.2	6.7	6.1	6.7	5.7	5.3
17	Penn A-4	Creeping	5.9	5.8	6.2	5.8	6.3	5.0	5.7
18	SR 7200	Velvet	5.9	6.0	6.2	5.5	2.7	4.0	7.0
19	OO7	Creeping	5.8	5.9	5.8	5.8	8.3	5.0	6.3
20	Penn G-6	Creeping	5.7	6.4	5.4	5.2	6.3	4.3	5.7
21	T-1	Creeping	5.5	6.1	5.5	4.9	5.3	7.3	4.3
22	LS-44	Creeping	5.4	6.2	5.0	4.8	6.0	7.3	4.7
23	Bengal	Creeping	5.4	5.5	5.4	5.3	5.7	5.0	5.7
24	Southshore	Creeping	5.3	5.2	5.2	5.4	5.3	4.0	5.3
25	L-93	Creeping	5.1	5.0	5.1	5.1	5.0	6.0	4.3

(Continued)

Table 3 (continued).

Cultivar or Selection	Species	Turf Quality <sup>1</sup>				Spring Green-up <sup>2</sup> March 2006	Genetic Color <sup>3</sup> Oct. 2006	Turf Density <sup>4</sup> Oct. 2006
		2004-2006 Avg.	2004 Avg.	2005 Avg.	2006 Avg.			
26 Memorial	Creeping	5.0	5.5	5.3	4.3	7.0	4.7	3.7
27 Century	Creeping	5.0	5.4	5.1	4.7	7.0	3.7	4.3
28 13-M	Creeping	4.8	5.2	4.7	4.6	7.0	5.0	4.7
29 Cobra II	Creeping	4.8	5.6	4.9	4.0	3.0	7.3	4.0
30 SR 1119	Creeping	4.7	5.4	4.3	4.5	4.3	6.3	3.3
31 Imperial	Creeping	4.7	4.9	4.6	4.5	4.3	3.3	5.0
32 Benchmark DSR	Creeping	4.6	4.2	4.8	5.0	7.0	6.7	4.7
33 Penneagle	Creeping	4.6	4.8	5.0	4.0	5.7	4.3	3.3
34 Kingpin	Creeping	4.5	4.6	4.7	4.1	7.0	7.0	4.0
35 Alpha	Creeping	4.5	4.7	4.2	4.6	3.0	5.3	4.7
36 Crenshaw	Creeping	4.4	4.6	4.4	4.1	3.7	6.3	3.3
37 Penlinks II	Creeping	3.8	4.9	3.3	3.3	4.7	5.3	2.7
38 Penncross	Creeping	2.6	3.4	2.1	2.4	2.7	3.0	2.3
LSD at 5% =		0.7	0.7	0.9	0.9	1.8	1.5	1.5

<sup>1</sup>9 = best turf quality  
<sup>2</sup>9 = earliest spring green-up  
<sup>3</sup>9 = darkest genetic color  
<sup>4</sup>9 = highest shoot density



Table 4. Performance of bentgrass cultivars and selections in a fairway/tee trial established in September 2003 at North Brunswick, NJ. (Includes all entries of the 2003 National Bentgrass Fairway Test - NTEP.)

Cultivar or Selection	Species	-----Turf Quality'-----				Brown Patch <sup>2</sup> 2006 Avg.	Spring Green-up <sup>3</sup> March 2006	Dollar Spot <sup>2</sup> July 2006	Genetic Color <sup>4</sup> Oct. 2006	Turf Density <sup>5</sup> Oct. 2006
		2004-2006 Avg.	2004 Avg.	2005 Avg.	2006 Avg.					
1 SR 7200	Velvet	7.1	7.7	7.4	6.3	7.5	2.3	9.0	5.0	8.7
2 Authority	Creeping	6.6	6.5	6.9	6.7	7.2	7.0	7.3	4.7	8.0
3 Benchmark	Creeping	6.4	6.9	5.6	6.7	6.7	8.3	8.7	7.0	7.0
4 Kingpin	Creeping	6.3	6.9	6.0	6.1	5.7	8.7	7.7	7.3	6.7
5 Shark	Creeping	6.3	6.1	6.1	6.5	8.2	5.7	5.3	4.7	8.0
6 MacKenzie	Creeping	6.2	6.2	6.1	6.4	8.8	7.7	5.3	4.7	8.0
7 13-M	Creeping	6.2	6.5	5.9	6.3	6.2	5.7	6.3	5.0	7.3
8 PST-OEB	Creeping	6.2	6.2	6.6	5.7	7.0	4.7	6.7	5.7	6.3
9 LS-44	Creeping	6.1	6.2	6.1	6.1	7.0	4.0	5.3	5.7	6.3
10 Penneagle II	Creeping	6.1	6.1	6.3	6.0	6.8	4.7	6.3	5.3	6.7
11 T-1	Creeping	5.9	6.4	5.9	5.2	6.8	6.0	3.7	8.0	6.7
12 IS-AP-14	Creeping	5.8	5.9	5.9	5.7	7.7	6.7	4.0	4.7	7.0
13 Alpha	Creeping	5.8	6.0	6.1	5.4	7.7	5.3	3.3	6.0	5.3
14 PST-9NBC	Colonial	5.8	6.1	5.5	5.9	4.8	4.7	9.0	4.0	6.0
15 Declaration	Creeping	5.8	7.5	4.5	5.5	6.5	7.0	8.3	5.7	7.3
16 IS-AT-7	Colonial	5.7	6.5	5.6	5.0	4.3	1.7	9.0	4.0	5.3
17 SR 1150	Creeping	5.5	6.0	5.2	5.5	6.2	6.3	4.7	4.7	7.3
18 Bengal	Creeping	5.5	5.7	5.7	5.1	7.2	6.0	3.7	5.0	6.0
19 Independence	Creeping	5.4	5.6	5.8	4.9	7.3	6.0	2.3	5.3	6.3
20 L-93	Creeping	5.4	5.8	5.1	5.3	5.2	4.0	6.0	6.0	5.0
21 PST-9VN	Colonial	5.4	6.1	5.3	4.8	4.3	2.7	9.0	4.3	4.7
22 SR 1119	Creeping	5.3	6.0	5.4	4.6	5.8	3.3	3.7	6.0	5.0
23 EWTR	Colonial	5.3	6.1	5.2	4.9	3.2	2.3	9.0	3.0	5.3
24 Penmlinks II	Creeping	5.3	6.2	5.0	4.7	4.7	4.3	8.3	5.7	4.0
25 Tiger II	Colonial	5.2	6.1	5.0	4.5	3.0	2.0	9.0	3.3	5.0

(Continued)

Table 4 (continued).

Cultivar or Selection	Species	Turf Quality <sup>1</sup>				Brown Patch <sup>2</sup> 2006 Avg.	Spring Green-up <sup>3</sup> March 2006	Dollar Spot <sup>2</sup> July 2006	Genetic Color <sup>4</sup> Oct. 2006	Turf Density <sup>5</sup> Oct. 2006
		2004-2006 Avg.	2004 Avg.	2005 Avg.	2006 Avg.					
26 SR 7150	Colonial	5.1	5.9	5.3	4.2	1.7	9.0	3.0	4.7	
27 Southshore	Creeping	5.1	5.3	5.2	4.9	5.8	4.3	4.0	5.0	
28 Bardot	Colonial	5.0	5.8	4.8	4.5	2.3	9.0	2.3	5.0	
29 Imperial	Creeping	4.6	4.6	5.3	3.9	4.3	3.0	3.0	4.0	
30 Princeville	Creeping	4.4	4.4	4.9	3.9	4.7	5.0	3.7	3.7	
31 Crenshaw	Creeping	4.3	4.4	4.8	3.5	4.0	1.3	6.0	3.7	
32 Pennncross	Creeping	3.7	4.0	3.8	3.4	4.7	3.0	5.3	2.7	
33 Seaside	Creeping	1.8	2.4	1.9	1.2	2.7	8.0	2.3	1.0	
LSD at 5% =										
		0.5	0.6	0.7	0.8	1.0	1.4	1.1	1.0	

<sup>1</sup>9 = best turf quality

<sup>2</sup>9 = least disease

<sup>3</sup>9 = earliest spring green-up

<sup>4</sup>9 = darkest genetic color

<sup>5</sup>9 = highest shoot density

Table 5. Performance of bentgrass cultivars and selections in a fairway/tee trial seeded in October 2003 at North Brunswick, NJ.

Cultivar or Selection	Species	-----Turf Quality'-----				Worn Turf Quality <sup>2</sup> 2006	Spring Green-up <sup>3</sup> April 2006	Dollar Spot <sup>4</sup> June 2006	Brown Patch <sup>4</sup> June 2006
		2004-2006 Avg.	2004 Avg.	2005 Avg.	2006 Avg.				
1	Greenwich	Velvet	6.5	6.5	6.8	6.3	5.7	6.0	7.7
2	Authority	Creeping	6.5	6.6	6.3	6.5	5.0	5.3	5.7
3	VE3 Comp	Velvet	6.0	5.8	5.8	6.3	2.7	8.7	7.3
4	SR 7200	Velvet	6.0	6.1	5.9	5.9	5.0	8.3	6.3
5	Shark	Creeping	5.9	6.1	5.7	5.9	6.7	5.7	6.0
6	PST-Syn-9BC3	Colonial	5.9	5.8	6.1	5.6	7.3	5.7	3.3
7	Cobra II	Creeping	5.8	6.4	5.4	5.7	3.3	8.0	7.0
8	Declaration	Creeping	5.8	7.3	4.6	5.5	4.0	9.0	5.3
9	PST-Syn-9NCG	Colonial	5.7	5.5	6.0	5.7	5.7	5.3	3.7
10	Kingpin	Creeping	5.7	6.1	5.1	6.1	7.7	9.0	8.3
11	Tyee	Creeping	5.7	5.5	5.6	6.0	7.0	6.7	7.3
12	Penn G-1	Creeping	5.7	5.1	6.2	5.7	4.3	6.0	6.0
13	PST-OEB	Creeping	5.7	5.5	5.3	6.1	5.7	7.7	7.3
14	SRX 7CRCO	Colonial	5.6	5.5	5.8	5.6	6.7	8.7	6.7
15	Benchmark DSR	Creeping	5.6	5.6	5.0	6.3	8.7	9.0	7.3
16	Penneagle II	Creeping	5.6	5.7	5.8	5.4	6.7	6.7	6.3
17	PST-9NG-Bulk	Colonial	5.5	5.3	5.8	5.4	6.0	3.3	2.3
18	Penn G-6	Creeping	5.4	5.6	5.4	5.5	5.7	6.0	6.0
19	Sandhill	Creeping	5.4	5.4	5.9	4.9	6.0	8.3	5.0
20	PST-OEX Bulk	Creeping	5.4	4.7	6.0	5.6	2.7	8.7	7.3
21	PST-OSF Bulk	Creeping	5.4	4.9	5.6	5.8	6.0	8.3	6.0
22	Penn A-2	Creeping	5.4	5.2	5.6	5.5	5.7	5.7	5.0
23	SRX ITR3E	Creeping	5.3	5.0	5.4	5.5	5.0	5.0	6.0
24	PST-VGG Bulk	Velvet	5.3	5.2	5.8	4.8	2.7	6.3	6.7
25	SRX IG68	Creeping	5.2	5.5	5.2	5.0	5.7	4.7	6.3

(Continued)

Table 5 (continued).

Cultivar or Selection	Species	-----Turf Quality'-----				Worn Turf Quality <sup>2</sup> 2006	Spring Green-up <sup>3</sup> April 2006	Dollar Spot <sup>4</sup> June 2006	Brown Patch <sup>4</sup> June 2006
		2004-2006 Avg.	2004 Avg.	2005 Avg.	2006 Avg.				
26 Penn A-1	Creeping	5.2	5.6	5.0	5.1	6.0	4.7	7.0	3.7
27 IS-AP-10	Creeping	5.2	4.8	5.5	5.1	5.7	5.0	5.7	5.3
28 ORU	Creeping	5.2	5.4	4.8	5.3	5.3	5.3	6.7	7.0
29 PST-9R3	Colonial	5.1	4.8	5.4	5.1	7.0	7.7	8.3	4.0
30 Alister	Colonial	5.1	5.1	5.6	4.8	6.0	6.3	4.7	3.0
31 SRX WICRIG	Creeping	5.1	5.0	5.1	5.3	5.0	4.3	5.0	6.3
32 L-93	Creeping	5.1	5.1	5.1	5.1	5.3	4.7	8.0	6.7
33 Penneagle	Creeping	5.1	4.8	5.3	5.2	5.3	7.0	6.7	6.3
34 IS-AP-14	Creeping	5.1	5.4	4.9	4.9	5.3	5.7	5.3	5.3
35 SRX IG57	Creeping	5.0	5.1	5.0	5.0	3.3	5.0	6.3	6.7
36 SR 1150	Creeping	5.0	5.1	4.8	5.1	6.0	6.0	7.3	4.7
37 PST-020 Bulk	Creeping	5.0	5.0	4.8	5.3	5.7	4.3	9.0	5.7
38 Glory	Colonial	5.0	5.0	5.0	4.8	6.0	4.3	7.0	3.3
39 Independence	Creeping	4.9	4.8	5.1	4.8	4.7	6.0	4.3	5.3
40 SRX 1NJH	Creeping	4.9	4.6	5.0	5.0	4.3	4.7	6.7	5.7
41 PST-9x3 Bulk	Colonial	4.8	4.4	5.7	4.5	6.3	7.7	7.0	3.0
42 SRX 7MOBB	Colonial	4.8	4.9	5.3	4.4	5.7	6.3	6.3	3.3
43 SRX ISQ2G	Creeping	4.8	4.7	4.9	5.0	3.3	8.0	5.0	5.3
44 Penn A-4	Creeping	4.8	4.9	4.9	4.6	4.0	6.0	4.0	3.7
45 SRX 7EE5	Colonial	4.8	5.0	4.9	4.5	5.7	5.0	5.3	3.7
46 SRX 1H Blue	Creeping	4.7	5.0	4.6	4.5	4.3	3.7	6.0	5.7
47 SRX 1H Pink	Creeping	4.6	4.0	5.1	4.8	4.7	4.3	6.3	5.0
48 PST-9VN	Colonial	4.6	4.9	4.7	4.3	3.7	4.3	8.3	3.3
49 Brighton	Creeping	4.6	4.2	4.7	4.9	5.0	3.7	6.3	4.7
50 SR 1119	Creeping	4.6	4.6	4.5	4.6	5.3	4.0	5.3	4.3

(Continued)

Table 5 (continued).

Cultivar or Selection	Species	-----Turf Quality'-----				Worn Turf Quality <sup>2</sup> 2006	Spring Green-up <sup>3</sup> April 2006	Dollar Spot <sup>4</sup> June 2006	Brown Patch <sup>4</sup> June 2006
		2004-2006 Avg.	2004 Avg.	2005 Avg.	2006 Avg.				
51 PST-Syn-9NT	Colonial	4.5	4.0	4.6	4.9	6.7	2.0	8.7	4.0
52 Southshore	Creeping	4.5	4.3	4.7	4.5	3.7	5.3	5.7	5.7
53 Bengal	Creeping	4.5	4.5	4.6	4.3	3.7	5.0	5.7	5.3
54 SRX 1HSilver	Creeping	4.4	4.3	4.6	4.5	4.7	5.0	7.7	4.7
55 Imperial	Creeping	4.4	4.0	4.8	4.3	5.0	5.0	4.3	3.7
56 SR 7100	Colonial	4.4	4.4	4.4	4.4	5.7	6.0	5.7	2.7
57 SRX 7EE	Colonial	4.3	4.5	3.9	4.5	6.7	4.3	8.7	4.3
58 SRX 7EE4	Colonial	4.3	4.6	4.5	3.8	5.3	6.0	5.3	2.3
59 Bar AS2	Creeping	4.3	4.4	4.5	4.1	3.0	5.3	5.3	4.7
60 PST-ORR Bulk	Creeping	4.2	3.5	4.5	4.8	7.3	2.3	9.0	4.7
61 Seaside II	Creeping	4.2	4.1	4.0	4.4	5.3	3.7	8.0	4.7
62 Providence	Creeping	4.1	4.2	4.3	3.8	4.3	3.3	7.3	3.3
63 Bardot	Colonial	4.1	3.7	4.4	4.1	5.7	4.0	8.3	4.0
64 PennLinks II	Creeping	4.1	3.8	4.5	3.9	5.7	5.3	7.0	3.0
65 PST-Syn-9PIN	Colonial	4.0	4.6	4.2	3.1	2.7	4.0	8.0	3.0
66 Century	Creeping	4.0	3.8	4.1	3.9	2.7	7.0	3.7	3.3
67 ORF-03	Creeping	4.0	4.0	4.5	3.6	4.3	2.3	6.7	4.7
68 PST-Syn-9LSD	Colonial	3.9	3.9	4.2	3.7	3.7	3.7	8.7	4.7
69 Crenshaw	Creeping	3.9	3.8	4.4	3.5	3.3	4.0	2.7	3.3
70 Regent	Creeping	3.8	3.8	4.5	3.3	4.3	5.3	6.0	3.3
71 PST-ORF	Creeping	3.8	3.7	4.0	3.8	5.0	3.3	6.3	4.0
72 PST-9GBS-Bulk	Colonial	3.7	3.3	4.5	3.4	4.7	2.3	8.7	4.7
73 Heriot	Colonial	3.7	3.5	3.7	4.0	5.0	2.7	8.3	2.3
74 Barifera	Creeping	3.6	3.2	3.8	3.6	3.0	3.7	5.7	5.3
75 PST-OGEBulk	Creeping	3.5	3.5	3.8	3.2	3.7	4.7	5.7	4.7

(Continued)

Table 5 (continued).

Cultivar or Selection	Species	Turf Quality <sup>1</sup>				Worn Turf Quality <sup>2</sup> 2006	Spring Green-up <sup>3</sup> April 2006	Dollar Spot <sup>4</sup> June 2006	Brown Patch <sup>4</sup> June 2006
		2004-2006 Avg.	2004 Avg.	2005 Avg.	2006 Avg.				
76 Trueline	Creeping	3.4	3.0	4.0	3.3	3.3	7.7	3.3	
77 Penncross	Creeping	3.4	3.0	3.8	3.4	5.0	5.7	4.0	
78 PST-VE52 Bulk	Velvet	3.4	3.5	3.6	3.1	4.3	7.3	5.0	
79 SRX 781-21	Colonial	3.2	3.1	3.4	3.2	2.0	7.7	2.3	
80 PST-9IR	Colonial	2.9	3.5	2.9	2.5	2.0	8.3	2.3	
81 Barbella	Velvet	2.6	2.6	2.7	2.6	1.0	7.0	4.0	
LSD at 5% =		0.6	0.8	1.0	0.9	1.8	1.5	1.7	

<sup>1</sup>9 = best turf quality

<sup>2</sup>9 = best turf quality under wear

<sup>3</sup>9 = earliest spring green-up

<sup>4</sup>9 = least disease



Table 6. Performance of bentgrass cultivars and selections in a putting green trial seeded in September 2004 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Spring Green-up <sup>2</sup> April 2006	Dollar Spot <sup>3</sup> 2006 Avg.
			2005-2006 Avg.	2005 Avg.	2006 Avg.		
1	04-EBM Comp	Colonial	6.4	6.5	6.2	8.3	5.5
1	Shark	Creeping	6.2	6.5	5.9	6.3	5.0
2	Greenwich	Velvet	6.2	6.4	6.0	4.3	8.8
3	Authority	Creeping	6.2	6.3	6.0	6.3	7.7
4	MacKenzie	Creeping	6.1	6.4	5.9	6.3	6.2
5	IS-AP-14	Creeping	5.9	6.7	5.1	6.0	5.3
6	Declaration	Creeping	5.8	6.2	5.4	5.0	8.5
7	Tyee	Creeping	5.8	6.5	5.0	7.3	4.7
8	Kingpin	Creeping	5.7	5.8	5.6	8.0	7.3
9	EPC Comp	Creeping	5.7	6.1	5.3	4.3	7.0
10	SRX 1BL1E	Creeping	5.6	6.0	5.2	6.7	5.7
11	Villa	Velvet	5.6	5.9	5.4	2.0	9.0
12	SRX 1TR3E	Creeping	5.6	5.7	5.5	5.7	6.3
13	SRX 1WM231	Creeping	5.5	5.5	5.6	4.0	7.3
14	DMC Comp	Creeping	5.3	5.5	5.0	5.7	5.8
15	Benchmark DSR	Creeping	5.3	5.4	5.1	7.7	6.8
16	VE3 Comp	Velvet	5.3	5.3	5.2	1.0	8.5
17	SRX 1BL2G	Creeping	5.2	5.8	4.6	2.7	3.5
18	Penn G-2	Creeping	5.2	5.2	5.1	6.0	8.2
19	PST-OEB-B.S.	Creeping	5.2	5.3	5.1	4.7	7.8
20	03-RSM-Comp	Creeping	5.1	5.5	4.8	4.0	6.3
21	PST-SYN-OSF	Creeping	5.1	5.2	4.9	6.3	6.8
22	SRX 146-12	Creeping	5.0	5.6	4.4	4.3	4.8
23	SRX 1WM COMP	Creeping	5.0	5.2	4.9	5.0	7.8
24	SRX 1WM213	Creeping	5.0	5.1	4.9	5.7	7.2
25	Penneagle II	Creeping	5.0	5.3	4.7	4.3	6.8
26	SRX 1WM3	Creeping	5.0	4.7	5.2	5.3	7.0
27	SRX 1WM3102	Creeping	5.0	5.1	4.8	4.3	7.7
28	FDS1 Comp	Creeping	4.9	5.6	4.3	5.7	8.5
29	SRX 1G32	Creeping	4.9	5.8	4.1	6.3	4.0
30	PST-EVX Bulk	Velvet	4.9	4.9	4.9	2.3	8.7
31	Penn A-1	Creeping	4.9	5.3	4.4	5.0	5.0
32	Penn A-2	Creeping	4.8	5.2	4.4	4.3	6.0
33	PST-SYN-ONCE	Creeping	4.7	5.0	4.5	5.0	6.7
34	Independence	Creeping	4.7	5.6	3.9	6.0	4.5
35	T-1	Creeping	4.7	5.2	4.2	5.7	5.2

(Continued)

Table 6 (continued).

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Spring Green-up <sup>2</sup> April 2006	Dollar Spot <sup>3</sup> 2006 Avg.
			2005- 2006 Avg.	2005 Avg.	2006 Avg.		
36	SRX 1WM236	Creeping	4.7	4.9	4.6	4.3	6.8
37	SRX 1WM385	Creeping	4.6	4.8	4.3	4.3	7.8
38	SR 7200	Velvet	4.6	4.8	4.3	6.0	8.7
39	FDS2 Comp	Creeping	4.6	4.7	4.3	4.0	6.0
40	SR 1150	Creeping	4.5	4.9	4.2	6.3	5.8
41	SRX 1WM232	Creeping	4.5	4.4	4.6	4.7	8.5
42	SR 1119	Creeping	4.4	4.6	4.1	5.0	4.3
43	MVA Comp	Velvet	4.3	4.4	4.2	2.3	7.5
44	SRX 1WM39	Creeping	4.3	4.4	4.1	4.3	8.0
45	Penn G-1	Creeping	4.2	4.6	3.9	4.3	6.2
46	L-93	Creeping	4.2	4.1	4.4	4.0	6.8
47	Alpha	Creeping	4.1	4.8	3.5	3.0	5.3
48	Penn A-4	Creeping	4.1	4.4	3.7	3.7	6.2
49	Southshore	Creeping	4.1	4.7	3.4	4.7	3.7
50	PST-SYN-OHTY	Creeping	4.0	4.4	3.7	5.7	5.7
51	EVA Comp	Velvet	4.0	3.8	4.2	2.7	7.2
52	Penn G-6	Creeping	4.0	4.1	3.8	6.3	7.5
53	Glory	Colonial	3.9	4.5	3.3	3.7	9.0
54	03-TTP- Comp	Creeping	3.9	4.2	3.6	2.0	8.2
55	Pennlinks II	Creeping	3.9	3.9	3.9	4.3	8.5
56	Century	Creeping	3.9	4.9	2.9	4.0	2.5
57	Putter	Creeping	3.7	4.2	3.2	4.3	4.7
58	Penneagle	Creeping	3.6	3.7	3.6	4.3	5.2
59	Crenshaw	Creeping	3.6	4.5	2.8	2.3	2.8
60	SRX 7EW 88-34	Velvet	3.6	3.5	3.6	5.7	6.8
61	Alister	Colonial	3.4	4.1	2.8	4.0	8.2
62	Pennlinks	Creeping	3.4	3.6	3.2	4.3	4.7
63	PST-ORF	Creeping	3.3	3.6	2.9	4.0	8.3
64	PST-9R3	Colonial	3.3	4.1	2.4	7.7	8.5
65	Penncross	Creeping	3.2	3.2	3.3	4.0	6.7
66	Seaside II	Creeping	3.2	3.1	3.3	2.3	8.2
67	Providence	Creeping	3.2	3.4	3.0	4.3	6.5
68	Brighton	Creeping	3.2	3.5	2.9	2.0	6.5
69	PST-9PIN	Colonial	3.2	3.9	2.5	3.7	8.8
70	Sandhill	Creeping	3.1	3.5	2.8	3.3	7.2

(Continued)

Table 6 (continued).

Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Spring Green-up <sup>2</sup> April 2006	Dollar Spot <sup>3</sup> 2006 Avg.	
		2005-2006 Avg.	2005 Avg.	2006 Avg.			
71	Viper	Creeping	3.1	3.5	2.7	1.7	5.5
72	PST-ORF	Creeping	3.1	3.1	3.0	2.7	8.3
73	PST-9VN	Colonial	2.8	3.3	2.3	1.7	9.0
74	PST-91R B.S.	Colonial	2.4	3.1	1.7	2.3	8.7
LSD at 5% =			0.9	1.1	1.0	2.3	2.0

<sup>1</sup>9 = best turf quality

<sup>2</sup>9 = earliest spring green-up

<sup>3</sup>9 = least disease

Table 7. Performance of bentgrass cultivars and selections in a fairway/tee trial seeded in October 2004 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Brown Patch <sup>2</sup> June 2006
			2005-2006 Avg.	2005 Avg.	2006 Avg.	
1	PST-EVX-Bulk	Velvet	7.1	7.4	6.8	8.0
2	Villa	Velvet	6.8	6.9	6.7	5.7
3	Declaration	Creeping	6.5	6.5	6.6	8.0
4	SRX 1WM231	Creeping	6.3	6.7	6.1	7.7
5	Greenwich	Velvet	6.3	6.4	6.3	8.7
6	SR 7200	Velvet	6.3	6.5	6.1	5.7
7	BCD Comp	Colonial	6.3	6.1	6.4	7.0
8	LDP Comp	Colonial	6.1	5.6	6.7	6.0
9	9111-6-12	Colonial	6.1	5.7	6.5	5.0
10	9110-8,9 & 10	Colonial	6.0	5.5	6.5	6.0
11	SRX 115-22	Colonial	5.9	5.7	6.1	6.7
12	SRX 1W236	Creeping	5.8	6.0	5.5	7.0
13	SRX 1WM385	Creeping	5.7	5.7	5.7	7.7
14	SRX 1WM213	Creeping	5.7	5.9	5.5	7.3
15	Shark	Creeping	5.7	6.0	5.4	7.3
16	SRX 1WM310Z	Creeping	5.7	6.2	5.1	7.3
17	PST-9VN	Colonial	5.6	5.0	6.3	5.0
18	EBM Comp	Colonial	5.6	5.6	5.6	6.0
19	9108-1 & 5	Colonial	5.6	5.6	5.6	5.3
20	PST-SYN-9GPS	Colonial	5.6	5.6	5.7	6.0
21	SRX 1WM Comp	Creeping	5.6	5.7	5.5	7.7
22	9107-6-12	Colonial	5.5	4.9	6.1	5.0
23	SR 1150	Creeping	5.5	5.4	5.6	6.7
24	Glory	Colonial	5.4	5.0	5.9	3.7
25	Tiger II	Colonial	5.4	4.9	5.8	5.7
26	SRX 1WM39	Creeping	5.3	5.8	4.8	7.3
27	SRX 1WM3	Creeping	5.3	5.6	4.9	7.7
28	9111-1-6	Colonial	5.3	4.7	6.0	5.0
29	Penn G-2	Creeping	5.3	5.9	4.6	6.0
30	IS-AP-14	Creeping	5.3	5.9	4.5	8.0
31	SRX 1WM232	Creeping	5.2	5.4	5.1	6.7
32	Penn A-2	Creeping	5.2	5.3	5.1	5.7
33	PST-OEB-B.S.	Creeping	5.0	4.9	5.1	5.3
34	Tyee	Creeping	5.0	5.3	4.8	8.0
35	Alister	Colonial	5.0	4.8	5.3	6.3

(Continued)

Table 7 (continued).

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Brown Patch <sup>2</sup> June 2006
			2005-2006 Avg.	2005 Avg.	2006 Avg.	
36	SRX 7EE5	Colonial	5.0	5.0	5.0	2.0
37	SRX 7CRCO	Colonial	5.0	4.6	5.5	3.7
38	PST-SYN-ONCE	Creeping	5.0	5.2	4.7	7.3
39	9113-1&5	Colonial	5.0	4.6	5.3	3.7
40	MacKenzie	Creeping	4.9	4.8	5.0	8.3
41	9118-1-6b	Colonial	4.9	4.2	5.5	4.3
42	PST-9PIN	Colonial	4.9	5.0	4.8	5.3
43	PST-9R3	Colonial	4.9	4.4	5.3	3.7
44	Penn G-1	Creeping	4.8	4.8	4.9	5.3
45	PST-OHB Bulk	Creeping	4.8	5.2	4.4	5.3
46	Penneagle II	Creeping	4.8	4.6	5.0	6.3
47	PST-SyN-OSF	Creeping	4.8	5.1	4.5	8.0
48	SRX 1TR3E	Creeping	4.8	5.2	4.4	6.3
49	Kingpin	Creeping	4.8	4.9	4.8	5.3
50	L-93	Creeping	4.8	4.4	5.2	5.3
51	SRX 1G32	Creeping	4.8	5.0	4.5	5.7
52	Penn A-1	Creeping	4.7	4.6	4.8	3.7
53	9114-1-6	Colonial	4.7	3.8	5.6	4.3
54	SR 7100	Colonial	4.6	4.2	5.0	3.3
55	SRX 7EE	Colonial	4.6	4.5	4.6	3.0
56	Penn G-6	Creeping	4.4	4.7	4.2	4.0
57	9109-6-12	Colonial	4.4	3.8	5.1	2.0
58	Benchmark DSR	Creeping	4.4	4.8	3.9	6.7
59	Sandhill	Creeping	4.4	4.2	4.6	4.7
60	SR 7150	Colonial	4.3	4.0	4.7	3.3
61	SRX 1BLIE	Creeping	4.3	4.7	3.9	4.3
62	T-1	Creeping	4.3	4.3	4.3	6.7
63	9118-6-12	Colonial	4.3	4.0	4.6	3.7
64	SRX 780-19	Colonial	4.2	4.1	4.4	4.0
65	PST-SYN-OHTY	Creeping	4.2	4.5	3.9	5.0
66	SRX 7EE4	Colonial	4.2	4.0	4.4	2.7
67	PST-ORF	Creeping	4.1	4.0	4.1	3.7
68	Penn A-4	Creeping	4.1	4.2	4.0	4.3
69	Independence	Creeping	4.1	4.4	3.6	5.7
70	PST-SYN-016	Creeping	4.0	3.9	4.1	3.7

(Continued)

Table 7 (continued).

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Brown Patch <sup>2</sup> June 2006
			2005-2006 Avg.	2005 Avg.	2006 Avg.	
71	Pennlinks II	Creeping	4.0	4.3	3.6	4.3
72	Alpha	Creeping	4.0	4.2	3.7	4.3
73	PST-ORF	Creeping	3.9	3.8	4.0	2.7
74	Penneagle	Creeping	3.9	3.8	4.0	5.3
75	Seaside II	Creeping	3.8	3.7	3.9	5.0
76	Putter	Creeping	3.7	3.6	3.9	2.0
77	PST-91R B.S.	Colonial	3.7	3.7	3.8	2.7
78	Brighton	Creeping	3.7	3.7	3.7	2.7
79	Pennlinks	Creeping	3.6	3.6	3.6	3.7
80	SR 1119	Creeping	3.6	3.4	3.8	3.0
81	Southshore	Creeping	3.5	3.1	3.9	4.0
82	Providence	Creeping	3.5	3.2	3.7	2.3
83	SRX 781-21	Colonial	3.4	3.4	3.4	2.0
84	Century	Creeping	3.3	3.8	2.8	2.7
85	Penncross	Creeping	3.1	3.1	3.2	2.3
86	Viper	Creeping	3.1	3.1	3.2	1.3
87	Crenshaw	Creeping	3.1	3.1	3.0	2.0
LSD at 5% =			0.6	0.8	0.8	1.9

<sup>1</sup>9 = best turf quality<sup>2</sup>9 = least disease



Table 8. Performance of bentgrass cultivars and selections in a putting green trial seeded in September 2005 at North Brunswick, NJ.

	Cultivar or Selection	Species	Turf Quality <sup>1</sup> 2006 Avg.	Brown Patch <sup>2</sup> June 2006	Copper Spot <sup>2</sup> 2006 Avg.
1	MacKenzie	Creeping	7.3	7.3	7.7
2	Tyee	Creeping	7.3	7.3	6.3
3	IS-AP-14	Creeping	7.1	7.0	6.8
4	EPC Comp	Creeping	7.1	6.3	6.8
5	DMC Comp	Creeping	6.9	5.7	6.7
6	Independence	Creeping	6.7	6.0	6.3
7	IS-AP-15	Creeping	6.6	6.0	5.3
8	IS-AC-4	Velvet	6.5	8.3	3.2
9	Declaration	Creeping	6.4	5.0	4.5
10	SRX 1BL1E	Creeping	6.4	7.3	6.5
11	OO7	Creeping	6.3	6.0	5.8
12	04-EBM Comp	Colonial	6.2	5.7	9.0
13	T-1	Creeping	6.2	4.7	7.7
14	PST-OMR Bulk	Creeping	6.1	7.0	7.3
15	CP3 Comp	Velvet	6.1	7.7	5.8
16	OEB BS	Creeping	6.0	3.7	7.3
17	Penn A-1	Creeping	5.9	6.7	6.0
18	Penn A-4	Creeping	5.9	4.0	7.2
19	Penn G-2	Creeping	5.9	4.7	6.7
20	SRX 1TR3E	Creeping	5.9	5.3	6.5
21	Legendary	Velvet	5.9	7.7	4.2
22	9BNC BS	Colonial	5.9	3.7	9.0
23	SR 1150	Creeping	5.7	6.0	7.3
24	FT1 Comp	Colonial	5.7	5.3	8.7
25	CP2 Comp	Velvet	5.7	8.3	5.0
26	Greenwich	Velvet	5.7	8.0	4.0
27	SRX 1WM Comp	Creeping	5.6	4.3	6.3
28	Penneagle II	Creeping	5.6	5.7	7.0
29	Penn G-6	Creeping	5.6	4.3	8.3
30	CP1 Comp	Velvet	5.6	8.0	5.3
31	SRX 151-11E	Creeping	5.5	5.3	7.7
32	PST-VHD Bulk	Velvet	5.5	8.7	4.3
33	Villa	Velvet	5.5	7.3	2.7
34	Alpha	Creeping	5.4	3.3	6.0
35	SR 7200	Velvet	5.4	7.3	4.2

(Continued)

Table 8 (continued).

	Cultivar or Selection	Species	Turf Quality <sup>1</sup> 2006 Avg.	Brown Patch <sup>2</sup> June 2006	Copper Spot <sup>2</sup> 2006 Avg.
36	PST-Syn-ONB4	Creeping	5.3	5.3	7.3
37	PST-Syn-OHTY-05	Creeping	5.2	4.0	7.2
38	SRX 146-12	Creeping	5.2	4.0	6.8
39	PST-Syn-VH5	Velvet	5.1	8.0	5.3
40	Alister	Colonial	5.0	3.7	8.8
41	PST-OASF Bulk	Creeping	5.0	5.7	8.0
42	Crenshaw	Creeping	5.0	4.0	7.7
43	PST-Syn-9B4	Colonial	5.0	4.7	8.8
44	Line 4362	<i>Poa reptans</i>	4.9	4.3	9.0
45	PST-Syn-VNY	Velvet	4.9	8.0	3.5
46	Pennlinks II	Creeping	4.8	4.0	8.3
47	Southshore	Creeping	4.8	3.7	7.3
48	L-93	Creeping	4.7	4.3	7.7
49	Line 4550	<i>Poa reptans</i>	4.7	8.0	9.0
50	PST-Syn-EV3S	Velvet	4.7	7.3	3.5
51	Sandhill	Creeping	4.6	4.0	6.8
52	Putter	Creeping	4.6	3.0	7.8
53	Line 4360	<i>Poa reptans</i>	4.5	2.7	9.0
54	Glory	Colonial	4.5	3.0	8.8
55	Line 4370	<i>Poa reptans</i>	4.5	5.0	9.0
56	SR 1119	Creeping	4.3	4.3	7.8
57	Line 3879	<i>Poa reptans</i>	4.2	8.0	9.0
58	Pennway	Creep. Blend	4.2	4.0	7.8
59	Brighton	Creeping	4.0	3.0	8.2
60	FT2 Comp	Colonial	4.0	5.0	8.8
61	Penncross	Creeping	3.9	1.7	8.3
62	Providence	Creeping	3.9	4.0	7.5
63	PST-09X Bulk	Creeping	3.8	5.7	7.8
64	Penneagle	Creeping	3.7	3.0	8.2
65	Pennlinks	Creeping	3.4	2.0	8.3
	LSD at 5% =		0.8	1.6	1.7

<sup>1</sup>9 = best turf quality<sup>2</sup>9 = least disease

Table 9. Performance of bentgrass cultivars and selections in a fairway/tee trial seeded in September 2005 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Dollar Spot <sup>2</sup> Sept. 2006	Brown Patch <sup>2</sup> 2006 Avg.
			2005- 2006 Avg.	2005 Avg.	2006 Avg.		
1	04-EBM Comp	Colonial	6.4	6.5	6.2	8.3	5.5
2	CP3 Comp	Velvet	6.3	6.3	6.2	9.0	7.5
3	EPC Comp	Creeping	6.1	5.8	6.4	7.3	7.0
4	IS-AC-4	Velvet	6.1	5.2	7.0	9.0	7.5
5	PST-Syn-OHTY-05	Creeping	6.1	7.8	4.3	2.7	6.2
6	Declaration	Creeping	6.0	4.8	7.2	9.0	6.2
7	OEB BS	Creeping	6.0	6.3	5.6	6.7	5.7
8	PST-VHD Bulk	Velvet	6.0	5.8	6.1	7.7	7.7
9	Greenwich	Velvet	6.0	5.3	6.6	7.7	7.5
10	FT1 Comp	Colonial	5.9	5.8	6.0	9.0	6.5
11	OO7	Creeping	5.8	5.7	5.9	7.0	6.7
12	IS-AP-15	Creeping	5.8	5.8	5.7	6.3	6.2
13	SRX 1WM Comp	Creeping	5.8	5.5	6.1	8.0	7.5
14	CP2 Comp	Velvet	5.7	5.8	5.6	8.0	6.3
15	PST-Syn-ONB4	Creeping	5.6	5.8	5.3	5.3	6.8
16	PST-Syn-9NCS	Colonial	5.6	6.2	4.9	7.7	3.8
17	SRX 1BL1E	Creeping	5.6	5.8	5.3	6.0	4.7
18	Penn A-1	Creeping	5.6	6.0	5.2	6.3	5.3
19	Alpha	Creeping	5.6	5.7	5.4	4.0	6.0
20	Legendary	Velvet	5.6	5.0	6.1	8.7	7.5
21	SRX 1TR3E	Creeping	5.5	5.8	5.2	5.7	5.7
22	PST-Syn-VH5	Velvet	5.5	5.3	5.7	8.0	8.2
23	DMC Comp	Creeping	5.5	5.3	5.6	7.0	6.8
24	Pennlinks II	Creeping	5.4	6.3	4.4	5.7	4.8
25	Penneagle II	Creeping	5.3	5.7	5.0	6.0	5.0
26	Tyee	Creeping	5.3	4.7	6.0	6.0	6.5
27	Penn G-2	Creeping	5.2	5.3	5.1	5.7	5.7
28	Alister	Colonial	5.2	5.2	5.2	6.7	5.3
29	LT3 Comp	Colonial	5.2	5.3	4.9	8.7	4.7
30	T-1	Creeping	5.1	5.5	4.8	3.7	6.2
31	PST-Bulk-VRZ	Velvet	5.1	5.2	5.0	8.0	5.7
32	SRX 7EE4	Colonial	5.0	5.8	4.3	5.7	4.5
33	PST-OVE Bulk	Creeping	5.0	5.8	4.2	6.0	5.2
34	PST-Syn-VNY	Velvet	5.0	4.8	5.3	8.0	7.0
35	Independence	Creeping	5.0	5.2	4.7	1.3	6.2

(Continued)

Table 9 (continued).

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Dollar Spot <sup>2</sup> Sept. 2006	Brown Patch <sup>2</sup> 2006 Avg.
			2005- 2006 Avg.	2005 Avg.	2006 Avg.		
36	SRX 7CRCO	Creep./Col.	5.0	5.2	4.7	7.0	5.2
37	PST-OAS Bulk	Creeping	5.0	5.0	4.9	5.3	5.7
38	CP1 Comp	Velvet	5.0	4.5	5.4	8.0	6.8
39	Villa	Velvet	4.9	3.5	6.5	9.0	7.3
40	SR 7200	Velvet	4.9	4.0	5.8	8.0	6.7
41	9BNC BS	Colonial	4.9	4.3	5.4	7.7	6.2
42	IS-AP-14	Creeping	4.9	4.3	5.4	4.3	6.5
43	L-93	Creeping	4.8	5.2	4.5	5.0	5.5
44	Penn A-4	Creeping	4.8	4.8	4.8	4.3	5.8
45	PST-OBEL Bulk	Creeping	4.8	5.0	4.6	6.0	5.7
46	Tiger II	Colonial	4.8	4.5	5.0	8.3	5.2
47	LT2 Comp	Colonial	4.8	4.5	5.0	8.3	4.8
48	IS-AT-8	Colonial	4.7	4.2	5.3	9.0	6.0
49	FT2 Comp	Colonial	4.6	4.2	5.1	8.3	4.8
50	Southshore	Creeping	4.6	5.7	3.5	3.7	4.8
51	SRX 7EE	Colonial	4.6	4.2	4.9	8.0	4.5
52	Sandhill	Creeping	4.5	5.2	4.0	5.0	6.0
53	SRX 151-11E	Creeping	4.5	4.8	4.2	1.7	6.0
54	PST-Syn-9MS	Colonial	4.5	4.0	5.0	7.0	5.5
55	PST-Syn-9B4	Colonial	4.5	4.2	4.9	7.0	5.2
56	SR 7150	Colonial	4.5	5.2	3.8	6.3	3.7
57	Penn G-6	Creeping	4.5	4.5	4.5	4.7	6.0
58	LT1 Comp	Colonial	4.5	4.2	4.9	8.7	4.8
59	Brighton	Creeping	4.4	5.3	3.5	3.7	4.5
60	Glory	Colonial	4.3	4.2	4.5	7.7	3.7
61	SRX 7EE5	Colonial	4.3	4.2	4.5	6.7	4.7
62	Penncross	Creeping	4.3	5.3	3.3	4.3	3.5
63	SRX 1PDH	Creeping	4.3	3.7	4.9	6.7	5.3
64	Crenshaw	Creeping	4.2	5.0	3.4	1.3	4.8
65	PST-OMR Bulk	Creeping	4.2	4.3	4.1	4.0	5.8
66	Pennlinks	Creeping	4.2	5.0	3.3	2.7	4.5
67	SRX 146-12	Creeping	4.1	4.2	4.2	3.7	4.8
68	SR 1119	Creeping	4.1	4.3	3.9	4.3	4.3
69	Putter	Creeping	4.1	4.7	3.6	2.7	3.5
70	Providence	Creeping	4.1	4.7	3.5	5.0	4.0

(Continued)

Table 9 (continued).

	Cultivar or Selection	Species	-----Turf Quality <sup>1</sup> -----			Dollar Spot <sup>2</sup> Sept. 2006	Brown Patch <sup>2</sup> 2006 Avg.
			2005- 2006 Avg.	2005 Avg.	2006 Avg.		
71	SR 7100	Colonial	4.0	3.5	4.4	7.3	4.8
72	Pennway	Creeping	3.9	4.0	3.8	4.0	4.3
73	PST-OASF Bulk	Creeping	3.8	4.2	3.5	5.0	4.8
74	Penneagle	Creeping	3.8	4.2	3.4	4.0	3.7
75	Seaside II	Creeping	3.7	3.7	3.7	4.3	5.3
76	PST-Syn-9505	Colonial	3.6	3.8	3.2	5.7	3.7
77	PST-09X Bulk	Creeping	3.5	3.2	3.9	6.3	4.2
LSD at 5% =			1.1	1.7	0.8	1.6	1.3

<sup>1</sup>9 = best turf quality

<sup>2</sup>9 = least disease

Table 10. Maintenance practices performed in 2006 on bentgrass trials at North Brunswick, NJ.

Table	Test	Fertility <sup>1</sup>	Mowing Height (inches)	Cultivation/Top Dress	Fungicides	Insecticides	Herbicides
1	2002 Greens	1.18	1/8	April-topdressed sand	June-Daconil Ultrex July-Prostar/Emerald	July-Merit (for grubs)	April-Trimec Bent (for broadleaf weeds)/Lontrel (for clover)/Dimension (pre-emergence weeds)
2	2002 Fairway	1.63	3/8	None.	June-Daconil Ultrex July-Echo 90	July-Merit (for grubs)	April-Trimec Bent (for broadleaf weeds)/Lontrel (for clover)/Dimension (pre-emergence weeds)
3	2003 NTEP Greens	2.28	3/8	April to Aug.-topdressed sand	April/July/Oct.-Daconil Ultrex May/July/Sept.-Junction July-Signature Aug./Sept.-Banner Maxx Aug.-Subdue/Spectro 90 Oct.-Cleary 3336 Plus	June-Merit (for grubs) July-Talstar (for cutworms)	June-Quicksilver (post-emergence weeds)
4	2003 NTEP Fairway	2.06	1/8	April to Aug.-topdressed sand	April/July/Oct.-Daconil Ultrex May/July/Sept.-Junction July-Signature Oct.-Banner Maxx/Cleary 3336 Plus	June-Merit (for grubs) July-Talstar (for cutworms)	June-Quicksilver (post-emergence weeds)
5	2003 Fairway	1.43	3/8	None.	Aug./Oct.-Banner Maxx July-Heritage July/Oct.-Daconil Ultrex Aug.-Subdue/Spectro 90	June-Merit (for grubs) Aug.-Dylox 80 (for cutworms)	April-Trimec Bent (for broadleaf weeds)/Lontrel (for clover)/Dimension (pre-emergence weeds)

(Continued)



Table 10 (continued).

Table	Test	Fertility <sup>1</sup>	Mowing Height (inches)	Cultivation/Top Dress	Fungicides	Insecticides	Herbicides
6	2004 Greens	1.43	3/8	None.	June/July--Daconil Ultrex Aug.--Banner Maxx/Spectro 90/Subdue Maxx	June--Merit (for grubs)	April--Trimec Bent (for broadleaf weeds)/Lontrel (for clover)/Dimension (pre-emergence weeds) July--Acclaim Extra (for Poa annua)
7	2004 Fairway	1.64	1/8	April to Aug.--topdressed sand	July/Sept.--Daconil Ultrex Aug./Sept.--Junction Sept.--Banner Maxx	July--Merit (for grubs)	April--Trimec Bent (for broadleaf weeds)/Lontrel (for clover)/Dimension (pre-emergence weeds) June--Quicksilver (post-emergence weeds)
8	2005 Greens	1.93	3/8	April--topdressed sand	None.	July--Merit (for grubs) Aug.--Dylox 80 (for cutworms)	April--Trimec Bent (for broadleaf weeds)/Lontrel (for clover)/Dimension (pre-emergence weeds)
9	2005 Fairway	2.28	1/8	April--topdressed sand	June--Prostar July/Oct.--Daconil Ultrex July/Aug.--Banner Maxx/Subdue Maxx Aug.--Spectro 90 Oct.--Cleary 3336 Plus	July--Merit (for grubs) Aug.--Dylox 80 (for cutworms)	April--Trimec Bent (for broadleaf weeds)/Lontrel (for clover)/Dimension (pre-emergence weeds)

<sup>1</sup>Annual nitrogen applied (lb/1000 ft<sup>2</sup>)



*Cooperating Agencies:* Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.