

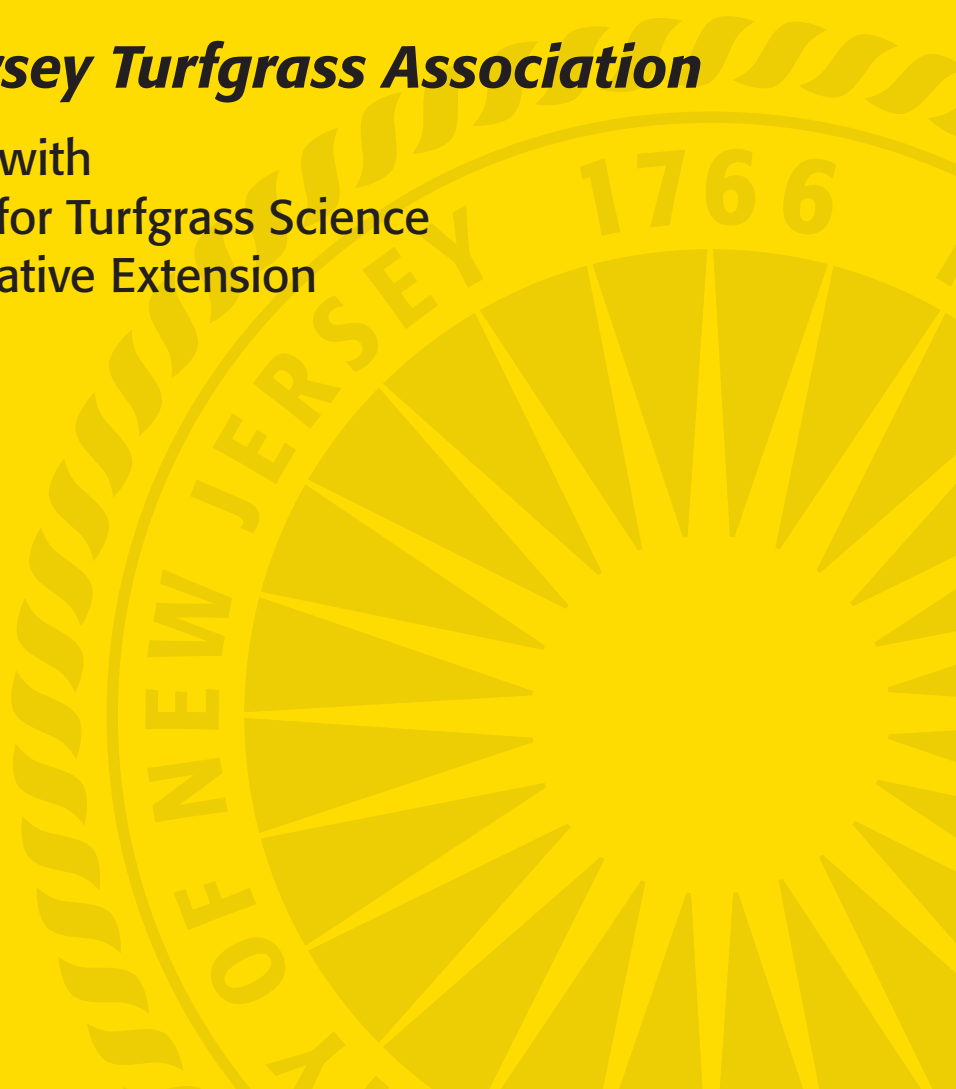
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The New Jersey Turfgrass Association

In Cooperation with
Rutgers Center for Turfgrass Science
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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 2007 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.

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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. These unique qualities enhance their use 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. syn. *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. Due to their growth habits, creeping and velvet bentgrasses are best conditioned for the very low cutting heights required for golf course greens in the United States. Colonial bentgrass responds best to a slightly higher height of cut, so it is usually better suited for fairways in temperate areas of the United States.

Creeping bentgrass is highly stoloniferous and has a prostrate growth habit, which permits persistence under very low mowing heights of up to 1/8 of an inch or less. This species is highly adapted to both cool-temperate as well as warm-humid regions of the United States, making it 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 synthetic 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, traffic tolerance, and recuperative ability, and increased disease and stress tolerance. Dollar spot (caused by the fungus *Sclerotinia homoeocarpa* F.T. Bennet) is one of the major 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 the 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 and a more upright and less aggressively spreading growth habit. In addition, colonial 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 typically has a brighter green color, as well as better color retention during cool weather, wear tolerance, and resistance to dollar spot. This species is much more susceptible, however, to brown patch (a disease caused by the fungus *Rhizoctonia solani* Kuhn). While not lethal, the playability of golf courses may be affected if brown patch is not controlled, and 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. The grass spreads mainly by a profuse production of erect tillers with short stolons. This grass can tolerate very close mowing, heat, cold and shade, and is one of the most drought tolerant 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 stands are extremely impervious to encroachment by *Poa annua*, the most prolific weed on golf courses. The spread of velvet bentgrass via stolons is more aggressive than that of colonial bentgrass but is less aggressive than that of creeping bentgrass. Velvet bentgrass can form excessive thatch, especially at higher fertility rates and higher cutting heights, and can thus become

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problematic if not maintained properly. This species is also susceptible to red thread (caused by *Laetisaria fuciformis* (McAlpine) Burdsall) and copper spot (caused by *Gloeocercospora sorghi* Bain & Edgerton ex Deighton), but has good resistance to dollar spot and brown patch. Seedlings of velvet bentgrasses are susceptible to Pythium seedling root rot during establishment.

During colder weather, velvet bentgrass turf will turn dark purple 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 show that a lower fertility requirement is needed to maintain a velvet bentgrass turf when compared to creeping bentgrass under the same conditions. Some of the major breeding objectives for velvet bentgrass include wear tolerance as well as resistance to copper spot and Pythium root disease.

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 are a result of recent collection trips within the United States and throughout 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, 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 a 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 2003 (Tables 1 through 4), 2004 (Tables 5 and 6), 2005 (Tables 7 and 8), and 2006 (Tables 9 through 11). Two of the trials planted in the fall of 2003 (Tables 1 and 3) included all entries of the 2003 National Bentgrass Test coordinated by the National Turfgrass Evaluation Program (NTEP). Trials were established on a modified Nixon loam, except the 2003 NTEP putting green trial (Table 1), which was seeded on a sand root zone built to USGA specifications (1993). 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/1000 ft². 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 12. 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 presence of disease or insect damage). Turf quality, wear tolerance, spring green-up, genetic color, density, leaf texture, and disease were rated on a 1 to 9 scale, where 9 represented the most desirable turf characteristic. Disease ratings included brown patch (Tables 2, 8, 9, 10, and 11), dollar spot (Tables 3, 4, 6, 8, and 11), copper spot (Table 1), and anthracnose (Tables 1, 2, and 5). 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 8 are ranked according to their overall multi-year quality average. Tables 9 through 11 are ranked by average turf quality for 2007. Throughout the years that this characteristic has been evaluated, a few varieties in each bentgrass species have performed better than the rest. For creeping bentgrasses maintained at a putting green height of cut, Tyee, Shark, Authority, Declaration, Independence, MacKenzie, and 007 all performed very well, while the poorest rated cultivars included Penncross, Pennlinks, Pennlinks II, Providence, Viper, and Crenshaw. At a fairway height, the turf quality of Authority, Declaration, and Shark creeping bentgrasses was excellent, while the lowest scoring cultivars were Penncross, Crenshaw, Seaside II, and Providence.

Velvet bentgrasses are also evaluated for overall turf quality every year. In 2007, the cultivars Greenwich, Villa, and Legendary were among the highest rated in every putting green test in which they were included. 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 cultivars 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, this species performs better at a fairway cutting height and has poor quality under putting green conditions. The experimental selections PST-9NBC, PST-Syn-9BC3, LDP Comp, PST-9VN, 04-EBM Comp, and FT1 Comp all received high scores, while Bardot, SR 7150, PST-9IR, SRX 781-21, and PST-Syn-9505 did not rate well under fairway cutting heights.

Dollar Spot

Sclerotinia homeocarpa, the causal agent of this widespread turfgrass disease, 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 to fungicides has become more prevalent. Additionally, increased fungicide use is not beneficial to the environment. Breeding

for dollar spot resistance in bentgrass is an important objective of the Rutgers breeding program. Typically, velvet and colonial bentgrasses are more resistant to dollar spot than creeping bentgrass; results from recent trials, however, indicate that disease resistance in creeping bentgrass has significantly improved. The creeping bentgrass Declaration and the colonial bentgrass Revere rated well for resistance to dollar spot in the 2003 NTEP fairway trial (Table 3). Topping the list of the varieties most resistant to this disease in the 2003 fairway test included the creeping bentgrasses Declaration, Benchmark DSR, and Kingpin. In the 2005 fairway test, experimental velvet bentgrasses PST-VHD Bulk and CP1 Comp proved to be more resistant to this fungal infection than other entries (Table 8). The experimental colonial bentgrasses LEB Comp and 9333-6-10 H04TP 3-10 as well as the creeping bentgrass Declaration all rated high for disease resistance in the 2006 fairway test (Table 11). Penncross and Crenshaw creeping bentgrasses were among the most susceptible entries in all fairway tests.

Brown Patch

Among the bentgrass species used for turf, velvet bentgrass is typically the most tolerant of brown patch, while colonial bentgrass is the most susceptible. Brown patch ratings for Declaration and 13-M creeping bentgrasses were lowest in the 2003 NTEP fairway trial (Table 3). The experimental velvet bentgrass PST-VHD Bulk and the experimental creeping bentgrass SRX 1WM Comp were rated most highly for disease resistance in the 2005 fairway test (Table 8). The experimental creeping bentgrass PST-0JD Bulk and the creeping bentgrass blend 007/Mackenzie/Tyee were also highly resistant to the brown patch fungus in the 2006 putting green test (Table 9). In the 2006 velvet bentgrass putting green test (Table 10), the experimental entry DDV Comp rated the highest for resistance. Experimental creeping bentgrasses proved to have superior brown patch resistance in the 2006 fairway test. FEC Comp and 9034-1-6 THE-2 had some of the highest ratings along with Authority creeping bentgrass and Tyee/007 creeping bentgrass blend (Table 11).

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 8), LT3 Comp, FT3 Comp, IS-AT-8, and PST-Syn-9505 colonial bentgrasses, specifically selected for brown patch resistance, were much more resistant to this disease than standard

cultivars such as SR 7150, SR 7100, Alister, and Tiger II. Resistance ratings for LEB Comp colonial bentgrass were higher than SR 7100 and Tiger II in the 2006 putting green and fairway test as well (Tables 9 and 10).

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 year. *Gloeocercospora sorghi* is a fungus that produces 3- to 4-inch, red-brown patches on the turf. In the 2003 putting green trial (NTEP) (Table 1), the creeping bentgrasses Penn G-6, Pennlinks II, and L-93 were more resistant to copper spot compared to the velvet bentgrasses Greenwich and Vesper, which rated poorly. Velvet bentgrass continues to be very susceptible to infection by this fungus, and selection for resistance to this disease is a major goal of the Rutgers turfgrass breeding program.

Anthraxnose

Anthraxnose, caused by *Colletotrichum cereale* Manns (sensu lato Crouch, Clarke, and Hillman) is a major problem in close-cut bentgrass areas such as golf course greens and fairways. Creeping bentgrass is typically more susceptible to this disease when compared to colonial and velvet bentgrasses. The 2003 NTEP putting green test (Table 1), the 2003 putting green test (Table 2), and the 2004 putting green test (Table 5) include ratings for anthracnose.

For the 2003 NTEP putting green trial, cultivars most resistant to anthracnose included the experimental creeping bentgrass entry HTM Comp as well as Southshore creeping bentgrass (Table 1). Legendary and SR7200 velvet bentgrasses were also highly resistant to this disease, whereas Tyee creeping bentgrass rated poorly for resistance. In the 2003 putting green trial (Table 2), Shark, Authority, and SR 1119 creeping bentgrasses all rated well for anthracnose resistance, while Kingpin creeping bentgrass was ranked as most susceptible. In the 2004 putting green trial, the velvet bentgrass experimental entry VE3 Comp and the creeping bentgrass Penneagle II performed well for this trait, but the creeping bentgrasses Penncross and Viper both performed poorly (Table 5).

Spring Green-Up

Spring green-up data was collected for all trials (Tables 1 to 11). In general, velvet bentgrass does not green up in the spring as well as colonial and creeping bentgrasses, and can even exhibit a reddish or purple color during cold winter months. Several creeping bentgrass entries that possessed early green-up qualities included Kingpin, Declaration, SRX 1BL1E, GMC Comp, Penn A-2, Penn A-1, 007, Independence, MacKenzie, and Benchmark DSR. The experimental colonial bentgrasses 9355-6 H04F-170 and DBN Comp also rated well for this trait.

A major goal of the Rutgers turfgrass breeding program is to improve the spring green-up of velvet bentgrasses. The better spring green-up of the experimental entries VE3 Comp and IS-AC-4 is a testament to this initiative; SR7200 and Villa velvet bentgrasses also rated well for this trait. The lowest rated entries were Crenshaw, Penncross, Pennlinks, L-93, Brighton, 03-TTP Comp, Seaside, Seaside II, and Trueline creeping bentgrasses and Barbella, Venus, and PST-VE52 Bulk velvet bentgrasses. SR 7100 colonial bentgrass also rated poorly.

Turf Density

Turfgrass density was measured for the 2003 NTEP putting green and fairway trials in September and November respectively (Tables 1 and 3). The density measurement is a number given to quantify the number of shoots per unit area. Overall, turfgrass density in velvet bentgrasses exceeds that of creeping and colonial bentgrass species. In 2003 trials (Tables 1 and 3), Villa, Legendary, and SR 7200 velvet bentgrasses rated best for density, while Shark, 13-M, Tyee, MacKenzie, and Declaration performed the best of the creeping bentgrasses. The experimental colonial bentgrass PST-9NBC also rated highly for this trait. 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 density ratings in these trials.

Genetic Color

Genetic color was rated in October for the 2003 NTEP putting green and fairways trials (Tables 1

and 3). High ratings are associated with plots that are dark green, while lighter green or yellowish turfs receive lower ratings. Typically, velvet and colonial bentgrasses are a lighter green, whereas creeping bentgrasses are darker and may, for some cultivars, appear almost blue-green. In the putting green trial (Table 1), the color of Tye and MacKenzie creeping bentgrasses were darkest compared to Penncross, which had the lightest green color rating. T-1 creeping bentgrass rated well for color in the fairway trial (Table 3), while Seaside creeping bentgrass and Bardot colonial bentgrass had the lowest scores.

Wear Tolerance

The ability of a turf stand to handle wear is one of the more important traits in maintaining long term quality and playability of the surface. Wear to turfgrass can be applied by driving machinery or walking on the turf and cultivation procedures. Wear was simulated on the 2004 fairway study (Table 6) 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. Velvet bentgrasses were more tolerant of wear than the other bentgrass species; for example, PST-EVX-Bulk, Villa, and Greenwich velvet bentgrasses were superior for wear tolerance, whereas the creeping bentgrasses Providence and Penncross creeping had very little remaining living turf after exposure to the harsh wear conditions.

Establishment

How well a complete and mature stand of turf is established after seeding is another trait that can be measured and used to separate cultivars. Establishment was rated for the 2006 putting green trial (Table 9), the 2006 velvet putting green trial (Table 10), and the 2006 fairway trial (Table 11) in October 2006. In the 2006 putting green trial, the creeping bentgrass entries 007, IS-AP-14, 9014-4-6 9-4, Declaration, Penneagle II, Imperial, Backspin, Pennlinks II, L-93, and Providence rated highly for establishment while Century creeping bentgrass rated poorly. In the 2006 velvet putting green trial, establishment for the cultivar Legendary was higher compared to the low ratings of the experimental entries 9159-1-5 H04TP 264-7-9 and 9148-7-12 H04TP 193-12. While there

were many creeping bentgrass cultivars and blends in the 2006 fairway trial that performed very well for establishment, Century creeping bentgrass rated low in this trial as well.

Percent Cover

Cover is a measure of the total area of a plot that is covered by turf. Many factors can affect this rating such as wear, disease, rate of establishment, and insect damage. Cover (assessed as a percent) was evaluated for the 2006 velvet putting green trial (Table 10). The velvet bentgrass cultivar Villa had the highest rating for this trait while percent cover for the the experimental entry 9148-7-12 H04TP 193-12 was poor.

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Table 1. 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 Test - NTEP.)

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring	Anthrac-	Copper	Turf	Leaf	Genetic
			2004-2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.	Green-up ² April 2007	nose ³ June 2007		Spot ³ 2007	Density ⁴ Sept. 2007	Texture ⁵ Sept. 2007
1	Legendary	Velvet	7.2	7.7	7.2	7.5	6.6	4.3	7.7	4.0	8.3	9.0	6.0
2	Villa	Velvet	7.2	7.9	7.5	7.2	6.2	4.3	6.3	4.2	8.3	9.0	7.3
3	Tyee	Creeping	7.0	7.2	6.8	7.3	6.8	6.7	2.3	4.3	7.7	7.7	8.7
4	Shark	Creeping	6.7	6.7	6.5	6.9	6.8	6.3	5.7	4.3	7.3	7.0	6.0
5	Greenwich	Velvet	6.6	7.4	6.7	6.5	6.0	2.0	6.0	3.7	7.7	9.0	6.0
6	Venus	Velvet	6.6	7.2	7.2	6.3	5.7	2.3	7.0	4.5	8.0	9.0	6.3
7	Independence	Creeping	6.5	6.4	6.1	6.7	7.0	5.0	7.3	4.5	6.7	7.0	5.7
8	CY-2	Creeping	6.5	6.7	6.4	6.5	6.4	6.0	5.7	5.0	7.0	7.3	7.3
9	MacKenzie	Creeping	6.4	6.3	5.9	6.9	6.7	7.0	4.7	4.5	7.7	8.0	8.3
10	Vesper	Velvet	6.3	7.3	7.0	5.9	5.2	3.3	7.0	3.3	7.0	9.0	5.7
11	Penn G-2	Creeping	6.3	6.7	6.5	6.3	5.8	5.3	6.3	5.5	6.0	5.3	5.7
12	Penn A-2	Creeping	6.2	6.1	6.6	6.0	6.0	4.7	7.3	4.8	6.0	6.0	6.7
13	Authority	Creeping	6.1	6.5	6.3	6.1	5.5	4.7	6.3	5.3	6.3	6.0	6.7
14	Declaration	Creeping	6.1	6.7	6.5	5.6	5.5	6.0	5.7	5.3	6.0	5.7	5.7
15	HTM comp	Creeping	6.0	5.2	6.7	6.1	6.2	4.7	7.7	6.3	7.0	6.3	6.3
16	OO7	Creeping	6.0	5.9	5.8	5.8	6.2	5.7	5.7	5.3	7.0	6.7	6.3
17	Penn A-1	Creeping	5.9	6.1	6.0	6.0	5.6	5.0	6.3	5.7	5.3	5.7	6.7
18	SR 7200	Velvet	5.8	6.0	6.2	5.5	5.5	5.7	7.7	4.8	7.0	9.0	8.0
19	Penn A-4	Creeping	5.8	5.8	6.2	5.8	5.1	4.0	6.0	5.8	5.0	5.3	6.0
20	Penn G-6	Creeping	5.7	6.4	5.4	5.2	5.7	5.3	6.7	7.0	6.7	6.0	7.7
21	T-1	Creeping	5.2	6.1	5.5	4.9	4.5	2.7	5.0	4.5	5.0	4.7	5.0
22	Alpha	Creeping	5.2	5.3	5.3	5.4	5.0	3.7	7.3	4.5	4.3	4.7	5.3
23	Bengal	Creeping	5.1	5.5	5.4	5.3	4.6	3.3	6.3	5.3	6.7	4.3	5.3
24	Southshore	Creeping	5.1	5.2	5.2	5.4	4.8	4.0	7.7	5.7	4.3	4.3	5.0
25	LS-44	Creeping	5.1	6.2	5.0	4.8	4.4	4.0	6.3	5.5	3.7	3.7	4.7

(Continued)

Table 1 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring	Anthrac-	Copper	Turf	Leaf	Genetic
			2004- 2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.	Green-up ² April 2007	nose ³ June 2007	Spot ³ 2007	Density ⁴ Sept. 2007	Texture ⁵ Sept. 2007	Color ⁶ Oct. 2007
26	L-93	Creeping	4.9	5.0	5.1	5.1	4.3	2.3	7.3	6.7	4.0	3.7	5.3
27	Century	Creeping	4.9	5.4	5.1	4.7	4.5	4.7	5.3	6.2	5.7	5.0	5.3
28	Memorial	Creeping	4.8	5.5	5.3	4.3	4.3	4.3	4.7	5.7	4.0	4.7	3.7
29	13-M	Creeping	4.8	5.2	4.7	4.6	4.7	4.7	5.0	5.3	4.7	4.0	5.3
30	Cobra II	Creeping	4.7	5.6	4.9	4.0	4.1	2.3	4.0	5.2	5.3	5.3	5.0
31	Benchmark DSR	Creeping	4.6	4.2	4.8	5.0	4.4	5.3	5.0	4.5	5.3	4.7	4.0
32	Imperial	Creeping	4.6	4.9	4.6	4.5	4.4	3.0	6.0	6.2	5.0	5.3	5.7
33	SR 1119	Creeping	4.5	5.4	4.3	4.5	4.0	2.0	6.0	5.5	2.7	3.3	4.3
34	Penneagle	Creeping	4.4	4.8	5.0	4.0	3.9	3.3	6.3	6.2	2.7	2.7	6.0
35	Alpha	Creeping	4.4	4.7	4.2	4.6	4.3	2.3	6.7	4.8	4.3	4.3	5.3
36	Crenshaw	Creeping	4.4	4.6	4.4	4.1	4.4	1.3	6.3	6.0	4.3	4.7	4.7
37	Kingpin	Creeping	4.3	4.6	4.7	4.1	3.8	5.0	5.0	6.2	3.7	3.7	4.0
38	Pennlinks II	Creeping	3.6	4.9	3.3	3.3	2.9	1.7	5.7	6.7	2.3	2.7	4.7
39	Penncross	Creeping	2.5	3.4	2.1	2.4	2.1	1.3	5.7	6.2	1.0	1.0	2.3
LSD at 5% =			0.7	0.7	0.9	0.9	0.9	1.7	2.4	1.1	1.3	1.1	2.2

¹9 = best turf quality²9 = earliest spring green-up³9 = least disease⁴9 = highest shoot density⁵9 = finest leaf texture⁶9 = darkest green color

Table 2. Performance of creeping bentgrass cultivars and selections in a putting green trial seeded in October 2003 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring Green-up ² April 2007	Anthrac-nose ³ June 2007
			2004-2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
1	Shark	Creeping	6.1	6.1	5.7	6.4	6.4	7.0	6.7
2	Authority	Creeping	5.5	5.6	5.5	5.5	5.4	6.0	5.3
3	Declaration	Creeping	5.5	6.4	5.5	5.1	4.9	7.0	4.3
4	Independence	Creeping	4.9	5.3	4.5	4.3	5.5	5.7	5.0
5	L-93	Creeping	4.5	5.1	4.5	4.6	4.0	3.0	5.3
6	Penn A-4	Creeping	4.5	5.3	4.3	3.9	4.4	3.7	5.0
7	Southshore	Creeping	4.1	4.1	3.7	4.3	4.2	2.7	5.0
8	Kingpin	Creeping	3.5	3.4	3.7	3.6	3.4	6.0	3.7
9	Crenshaw	Creeping	3.4	3.8	3.0	2.6	4.3	1.7	4.7
∞	10 SR 1119	Creeping	3.2	3.8	2.8	2.9	3.3	2.0	5.7
LSD at 5% =			0.7	0.7	0.8	0.9	0.9	1.4	1.8

¹9 = best turf quality

²9 = earliest spring green-up

³9 = least disease

Table 3. Performance of bentgrass cultivars and selections in a fairway/tee trial established in September 2003 at North Brunswick, NJ. (Includes all entries of the National Bentgrass Fairway Test - NTEP.)

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring Green-up ² April 2007	Brown Patch ³ July 2007	Dollar Spot ³ 2007	Genetic Color ⁴ Oct. 2007	Turf Density ⁵ Nov. 2007
			2004-2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.					
1	SR 7200	Velvet	7.0	7.7	7.4	6.3	6.7	6.0	6.0	8.0	6.7	9.0
2	13-M	Creeping	6.5	6.5	5.9	6.3	7.1	5.0	8.3	8.2	5.7	7.3
3	Authority	Creeping	6.4	6.5	6.9	6.7	5.7	4.3	6.0	4.8	5.3	6.7
4	Kingpin	Creeping	6.3	6.9	6.0	6.1	6.4	7.0	5.7	7.8	7.0	7.0
5	Benchmark	Creeping	6.3	6.9	5.6	6.7	6.0	6.3	5.3	7.8	6.0	6.3
6	MacKenzie	Creeping	6.2	6.2	6.1	6.4	6.1	6.3	6.7	5.6	5.7	7.3
7	Shark	Creeping	6.2	6.1	6.1	6.5	6.0	5.3	7.3	5.1	5.3	7.3
8	Declaration	Creeping	6.1	7.5	4.5	5.5	7.0	5.7	8.7	8.7	5.7	7.3
9	LS-44	Creeping	6.1	6.2	6.1	6.1	5.9	5.3	6.7	5.2	5.7	5.0
10	Crystal BlueLinks	Creeping	6.0	6.2	6.6	5.7	5.6	4.0	6.3	6.6	5.3	5.3
11	T-1	Creeping	5.9	6.4	5.9	5.2	6.3	5.0	7.3	4.4	7.0	6.7
12	Penneagle II	Creeping	5.9	6.1	6.3	6.0	5.2	4.3	6.3	4.9	5.0	5.0
13	PST-9NBC	Colonial	5.8	6.1	5.5	5.9	5.7	6.3	4.0	8.2	4.3	7.3
14	IS-AP-14	Creeping	5.7	5.9	5.9	5.7	5.2	4.7	8.3	5.1	4.7	5.7
15	Alpha	Creeping	5.6	6.0	6.1	5.4	4.9	5.0	7.0	3.3	6.0	5.0
16	SR 1150	Creeping	5.5	6.0	5.2	5.5	5.6	4.7	7.7	4.7	5.3	6.0
17	IS-AT-7	Colonial	5.5	6.5	5.6	5.0	4.9	4.0	3.7	7.5	4.0	7.0
18	Alpha	Creeping	5.5	6.2	6.2	5.0	4.5	4.0	7.0	3.7	6.0	5.3
19	PST-9VN	Colonial	5.4	6.1	5.3	4.8	5.2	4.0	5.0	8.0	5.3	5.7
20	L-93	Creeping	5.3	5.8	5.1	5.3	5.1	4.0	5.3	6.2	5.0	4.7
21	Independence	Creeping	5.3	5.6	5.8	4.9	4.9	4.0	7.0	3.2	6.3	6.0
22	Bengal	Creeping	5.2	5.7	5.7	5.1	4.6	4.7	6.3	3.5	5.3	5.7
23	Tiger II	Colonial	5.2	6.1	5.0	4.5	5.2	3.0	2.3	7.9	4.0	6.7
24	Revere	Colonial	5.1	6.1	5.2	4.9	4.5	3.3	3.7	8.6	3.7	6.3
25	SR 1119	Creeping	5.1	6.0	5.4	4.6	4.5	3.0	6.7	3.7	6.0	4.0

(Continued)

Table 3 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring Green-up ² April 2007	Brown Patch ³ July 2007	Dollar Spot ³ 2007	Genetic Color ⁴ Oct. 2007	Turf Density ⁵ Nov. 2007
			2004-2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.					
26	Pennlinks II	Creeping	5.1	6.2	5.0	4.7	4.4	2.0	5.0	7.7	6.3	4.3
27	Bardot	Colonial	5.0	5.8	4.8	4.5	4.8	3.7	2.3	8.0	3.3	6.7
28	SR 7150	Colonial	4.8	5.9	5.3	4.2	3.8	3.0	2.0	7.8	4.0	5.7
29	Southshore	Creeping	4.8	5.3	5.2	4.9	3.8	4.7	4.0	2.9	4.0	4.0
30	Princeville	Creeping	4.4	4.4	4.9	3.9	4.4	2.7	6.0	3.8	3.7	3.3
31	Imperial	Creeping	4.3	4.6	5.3	3.9	3.4	5.3	5.3	3.0	3.7	3.3
32	Crenshaw	Creeping	4.1	4.4	4.8	3.5	3.4	1.7	6.0	1.6	5.3	3.7
33	Penncross	Creeping	3.6	4.0	3.8	3.4	3.3	1.7	5.7	3.7	4.7	2.0
34	Seaside	Creeping	1.7	2.4	1.9	1.2	1.3	1.0	3.0	7.0	2.0	1.0
LSD at 5% =			0.5	0.6	0.7	0.8	1.0	1.9	2.1	1.2	1.8	1.4

¹9 = best turf quality

²9 = earliest spring green-up

³9 = least disease

⁴9 = darkest green color

⁵9 = highest shoot density

Table 4. Performance of creeping bentgrass cultivars and selections in a fairway/tee trial seeded in October 2003 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring Green-up ² May 2007	Dollar Spot ³ June 2007
			2004-2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
1	Authority	Creeping	6.4	6.6	6.3	6.5	6.2	5.3	6.7
2	Greenwich	Velvet	6.3	6.5	6.8	6.3	5.7	6.7	5.0
3	VE 3 Comp	Velvet	6.2	5.8	5.8	6.3	6.6	7.7	7.3
4	Shark	Creeping	6.0	6.1	5.7	5.9	6.4	7.3	6.3
5	Declaration	Creeping	6.0	7.3	4.6	5.5	6.4	6.7	8.7
6	Benchmark DSR	Creeping	5.8	5.6	5.0	6.3	6.5	7.0	8.3
7	Crystal BlueLinks	Creeping	5.8	5.5	5.3	6.1	6.3	4.0	6.7
8	SR 7200	Velvet	5.8	6.1	5.9	5.9	5.1	5.3	6.0
9	Kingpin	Creeping	5.7	6.1	5.1	6.1	5.7	5.0	8.3
10	Cobra II	Creeping	5.7	6.4	5.4	5.7	5.5	5.3	6.3
11	Tyee	Creeping	5.7	5.5	5.6	6.0	5.7	7.3	5.7
12	Penn G-1	Creeping	5.6	5.1	6.2	5.7	5.4	5.0	5.7
13	PST-Syn-9BC3	Colonial	5.6	5.8	6.1	5.6	4.8	5.7	5.3
14	Penneagle II	Creeping	5.6	5.7	5.8	5.4	5.4	6.3	5.7
15	PST-OSF Bulk	Creeping	5.5	4.9	5.6	5.8	6.0	5.7	6.3
16	PST-OEX Bulk	Creeping	5.4	4.7	6.0	5.6	5.6	2.7	7.3
17	Sandhill	Creeping	5.4	5.4	5.9	4.9	5.3	4.0	7.3
18	PST-9NG-Bulk	Colonial	5.4	5.3	5.8	5.4	5.0	5.7	4.3
19	PST-Syn-9NCG	Colonial	5.4	5.5	6.0	5.7	4.4	6.3	5.3
20	Penn G-6	Creeping	5.3	5.6	5.4	5.5	4.9	4.7	3.7
21	Penn A-2	Creeping	5.3	5.2	5.6	5.5	4.9	5.7	5.7
22	SRX IG68	Creeping	5.3	5.5	5.2	5.0	5.3	5.0	4.7
23	SRX 7CRCO	Colonial	5.2	5.5	5.8	5.6	4.1	6.0	6.3
24	SRX IG57	Creeping	5.2	5.1	5.0	5.0	5.8	5.3	6.3
25	ORU	Creeping	5.2	5.4	4.8	5.3	5.3	5.3	5.3

(Continued)

Table 4 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring Green-up ² May 2007	Dollar Spot ³ June 2007
			2004-2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
26	IS-AP-10	Creeping	5.2	4.8	5.5	5.1	5.2	6.0	4.7
27	SRX WICRIG	Creeping	5.2	5.0	5.1	5.3	5.2	7.0	6.0
28	Penn A-1	Creeping	5.2	5.6	5.0	5.1	4.9	4.7	8.0
29	SRX ITR3E	Creeping	5.1	5.0	5.4	5.5	4.6	5.7	4.7
30	L-93	Creeping	5.1	5.1	5.1	5.1	5.1	4.0	7.0
31	SR 1150	Creeping	5.1	5.1	4.8	5.1	5.3	4.7	6.7
32	PST-020 Bulk	Creeping	5.1	5.0	4.8	5.3	5.1	4.7	6.7
33	Penneagle	Creeping	5.0	4.8	5.3	5.2	4.5	4.7	6.7
34	Alister	Colonial	5.0	5.1	5.6	4.8	4.5	5.3	5.3
35	PST-VGG Bulk	Velvet	5.0	5.2	5.8	4.8	4.1	4.0	3.3
36	IS-AP-14	Creeping	4.9	5.4	4.9	4.9	4.6	5.7	4.7
37	SRX ISQ2G	Creeping	4.9	4.7	4.9	5.0	5.1	5.3	5.3
38	PST-9R3	Colonial	4.9	4.8	5.4	5.1	4.1	6.0	7.0
39	SRX 1NJH	Creeping	4.9	4.6	5.0	5.0	4.9	5.3	5.7
40	Independence	Creeping	4.8	4.8	5.1	4.8	4.5	6.0	4.7
41	PST-9x3 Bulk	Colonial	4.7	4.4	5.7	4.5	4.3	6.3	6.3
42	SRX 1HBlue	Creeping	4.7	5.0	4.6	4.5	4.8	6.0	5.3
43	Penn A-4	Creeping	4.7	4.9	4.9	4.6	4.6	4.7	4.3
44	Glory	Colonial	4.7	5.0	5.0	4.8	4.0	4.0	6.7
45	SRX 1HPink	Creeping	4.6	4.0	5.1	4.8	4.3	5.0	5.7
46	Southshore	Creeping	4.5	4.3	4.7	4.5	4.8	4.7	5.7
47	SR 1119	Creeping	4.5	4.6	4.5	4.6	4.4	4.0	5.0
48	Brighton	Creeping	4.5	4.2	4.7	4.9	4.1	4.7	5.0
49	SRX 7MOBB	Colonial	4.4	4.9	5.3	4.4	3.2	4.7	5.7
50	SRX 7EE5	Colonial	4.4	5.0	4.9	4.5	3.4	5.7	6.0

(Continued)

Table 4 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring Green-up ² May 2007	Dollar Spot ³ June 2007
			2004-2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
51	Bengal	Creeping	4.4	4.5	4.6	4.3	4.3	6.0	4.7
52	PST-ORR Bulk	Creeping	4.4	3.5	4.5	4.8	4.9	4.3	5.7
53	PST-9VN	Colonial	4.4	4.9	4.7	4.3	3.7	4.0	7.7
54	SRX 1HSilver	Creeping	4.4	4.3	4.6	4.5	4.1	4.3	6.3
55	PST-Syn-9NT	Colonial	4.3	4.0	4.6	4.9	3.8	3.3	6.3
56	SRX 7EE	Colonial	4.3	4.5	3.9	4.5	4.2	5.3	7.0
57	Imperial	Creeping	4.3	4.0	4.8	4.3	4.0	3.0	4.7
58	Bar AS2	Creeping	4.3	4.4	4.5	4.1	4.3	5.0	5.7
59	Providence	Creeping	4.1	4.2	4.3	3.8	4.0	3.7	6.7
60	Seaside II	Creeping	4.1	4.1	4.0	4.4	3.7	2.7	5.7
61	SR 7100	Colonial	4.0	4.4	4.4	4.4	3.0	3.0	5.7
62	ORF-03	Creeping	4.0	4.0	4.5	3.6	4.0	3.0	5.7
63	Century	Creeping	3.9	3.8	4.1	3.9	3.9	3.3	4.3
64	PennLinks II	Creeping	3.9	3.8	4.5	3.9	3.5	3.3	6.0
65	SRX 7EE4	Colonial	3.9	4.6	4.5	3.8	2.6	4.7	5.7
66	PST-Syn-9LSD	Colonial	3.8	3.9	4.2	3.7	3.7	4.3	6.7
67	Regent	Creeping	3.8	3.8	4.5	3.3	3.8	2.3	5.3
68	Crenshaw	Creeping	3.8	3.8	4.4	3.5	3.7	3.0	4.3
69	PST-ORF	Creeping	3.8	3.7	4.0	3.8	3.7	3.3	5.3
70	PST-Syn-9PIN	Colonial	3.7	4.6	4.2	3.1	3.0	4.0	7.0
71	Bardot	Colonial	3.7	3.7	4.4	4.1	2.4	2.7	6.7
72	Barifera	Creeping	3.6	3.2	3.8	3.6	3.9	5.3	4.0
73	PST-OGE Bulk	Creeping	3.5	3.5	3.8	3.2	3.6	4.7	4.3
74	PST-9GBS-Bulk	Colonial	3.5	3.3	4.5	3.4	2.8	4.0	6.0
75	Heriot	Colonial	3.4	3.5	3.7	4.0	2.7	3.7	6.7

(Continued)

Table 4 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----					Spring Green-up ² May 2007	Dollar Spot ³ June 2007
			2004-2007 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
76	PST-VE52 Bulk	Velvet	3.3	3.5	3.6	3.1	3.0	1.3	3.7
77	Trueline	Creeping	3.2	3.0	4.0	3.3	2.6	1.3	7.3
78	Penncross	Creeping	3.1	3.0	3.8	3.4	2.5	2.3	4.7
79	SRX 781-21	Colonial	3.0	3.1	3.4	3.2	2.4	3.0	5.7
80	PST-9IR	Colonial	2.6	3.5	2.9	2.5	1.7	2.7	7.0
81	Barbella	Velvet	2.6	2.6	2.7	2.6	2.8	2.3	4.0
LSD at 5% =			0.6	0.8	1.0	0.9	1.1	1.8	1.5

¹9 = best turf quality

²9 = earliest spring green-up

³9 = least disease

Table 5. Performance of creeping bentgrass cultivars and selections in a putting green trial seeded in September 2004 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Anthracnose ³ Aug. 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
	1 Shark	Creeping	6.3	6.5	5.9	6.5	5.7	8.3
	2 Authority	Creeping	6.0	6.3	6.0	5.7	4.0	8.0
	3 MacKenzie	Creeping	5.9	6.4	5.9	5.5	4.0	7.3
	4 Tye	Creeping	5.9	6.5	5.0	6.1	4.7	7.7
	5 IS-AP-14	Creeping	5.8	6.7	5.1	5.5	4.0	8.0
	6 Greenwich	Velvet	5.8	6.4	6.0	4.9	3.3	8.0
	7 EPC Comp	Creeping	5.5	6.1	5.3	5.1	2.7	8.3
	8 SRX 1BL1E	Creeping	5.5	6.0	5.2	5.2	6.7	6.0
	9 SRX 1WM231	Creeping	5.4	5.5	5.6	5.0	3.7	8.3
15	10 SRX 1TR3E	Creeping	5.4	5.7	5.5	4.8	5.0	7.3
	11 Villa	Velvet	5.4	5.9	5.4	4.9	3.7	6.3
	12 VE3 Comp	Velvet	5.3	5.3	5.2	5.3	3.7	9.0
	13 Kingpin	Creeping	5.3	5.8	5.6	4.5	5.3	6.7
	14 DMC Comp	Creeping	5.2	5.5	5.0	5.2	4.3	7.0
	15 Declaration	Creeping	5.2	6.2	5.4	4.0	6.7	7.0
	16 03-RSM-Comp	Creeping	5.1	5.5	4.8	5.2	2.7	6.7
	17 SRX 1BL2G	Creeping	5.1	5.8	4.6	4.7	5.7	5.0
	18 SRX 1G32	Creeping	5.0	5.8	4.1	5.2	4.0	8.7
	19 SRX 1WM COMP	Creeping	5.0	5.2	4.9	4.8	4.7	7.3
	20 SRX 1WM213	Creeping	5.0	5.1	4.9	4.9	5.3	7.3
	21 PST-EVX Bulk	Velvet	5.0	4.9	4.9	5.1	2.7	6.7
	22 Penn G-2	Creeping	5.0	5.2	5.1	4.6	4.7	6.0
	23 Penneagle II	Creeping	4.9	5.3	4.7	4.7	4.7	9.0
	24 Penn A-1	Creeping	4.9	5.3	4.4	5.1	6.0	8.7
	25 SRX 1WM3	Creeping	4.9	4.7	5.2	4.9	4.0	8.3

(Continued)

Table 5 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Anthracnose ³ Aug. 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
26	SRX 146-12	Creeping	4.9	5.6	4.4	4.8	3.7	7.3
27	SRX 1WM3102	Creeping	4.8	5.1	4.8	4.6	3.3	6.7
28	PST-SYN-OSF	Creeping	4.8	5.2	4.9	4.2	5.0	7.3
29	Benchmark DSR	Creeping	4.8	5.4	5.1	3.9	6.3	6.0
30	Crystal BlueLinks	Creeping	4.8	5.3	5.1	3.9	3.7	5.0
31	FDS1 Comp	Creeping	4.7	5.6	4.3	4.3	4.3	7.7
32	Penn A-2	Creeping	4.7	5.2	4.4	4.5	4.3	7.3
33	SRX 1WM236	Creeping	4.7	4.9	4.6	4.6	3.0	6.3
34	FDS2 Comp	Creeping	4.7	4.7	4.3	4.9	4.7	8.3
35	PST-SYN-ONCE	Creeping	4.6	5.0	4.5	4.4	4.0	7.7
36	T-1	Creeping	4.6	5.2	4.2	4.3	4.3	6.3
37	SRX 1WM385	Creeping	4.6	4.8	4.3	4.5	3.7	6.3
38	SRX 1WM232	Creeping	4.6	4.4	4.6	4.7	4.0	5.7
39	SR 1150	Creeping	4.5	4.9	4.2	4.5	4.0	7.0
40	Independence	Creeping	4.5	5.6	3.9	4.1	3.7	6.3
41	Penn G-1	Creeping	4.3	4.6	3.9	4.4	4.0	8.0
42	SR 7200	Velvet	4.2	4.8	4.3	3.4	5.7	7.0
43	SR 1119	Creeping	4.2	4.6	4.1	3.8	4.3	5.3
44	EVA Comp	Velvet	4.2	3.8	4.2	4.4	4.3	7.3
45	MVA Comp	Velvet	4.2	4.4	4.2	4.0	4.3	7.0
46	Penn G-6	Creeping	4.2	4.1	3.8	4.5	4.3	6.3
47	L-93	Creeping	4.2	4.1	4.4	4.1	3.3	5.7
48	Penn A-4	Creeping	4.1	4.3	3.9	4.2	3.3	4.7
49	SRX 1WM39	Creeping	4.0	4.4	4.1	3.6	3.3	3.7
50	Southshore	Creeping	4.0	4.7	3.4	3.9	5.0	6.0

(Continued)

Table 5 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Anthracnose ³ Aug. 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
51	PST-SYN-OHTY	Creeping	4.0	4.4	3.7	3.9	5.7	2.3
52	Alpha	Creeping	4.0	4.8	3.5	3.7	2.7	5.0
53	Century	Creeping	3.8	4.9	2.9	3.7	4.3	6.3
54	SRX 7EW 88-34	Velvet	3.8	3.5	3.6	4.2	3.0	6.3
55	03-TTP- Comp	Creeping	3.8	4.2	3.6	3.4	1.7	6.3
56	Putter	Creeping	3.7	4.2	3.2	3.7	4.7	6.0
57	Penneagle	Creeping	3.7	3.7	3.6	3.8	4.0	6.0
58	Pennlinks II	Creeping	3.7	3.9	3.9	3.3	3.7	4.3
59	Crenshaw	Creeping	3.6	4.5	2.8	3.6	2.7	7.3
60	Pennlinks	Creeping	3.5	3.6	3.2	3.8	5.7	5.0
61	Glory	Colonial	3.2	4.5	3.3	1.8	5.3	7.0
62	Brighton	Creeping	3.2	3.5	2.9	3.2	1.7	2.7
63	Seaside II	Creeping	3.2	3.1	3.3	3.0	2.0	4.0
64	Sandhill	Creeping	3.1	3.5	2.8	3.0	3.3	5.7
65	PST-ORF	Creeping	3.0	3.6	2.9	2.5	3.3	4.7
66	Alister	Colonial	3.0	4.1	2.8	2.1	5.0	7.0
67	Penncross	Creeping	3.0	3.2	3.3	2.3	3.0	3.7
68	Viper	Creeping	3.0	3.5	2.7	2.6	2.3	2.0
69	PST-9PIN	Colonial	2.9	3.9	2.5	2.3	3.7	6.7
70	Providence	Creeping	2.9	3.4	3.0	2.3	2.0	2.7
71	PST-9R3	Colonial	2.7	4.1	2.4	1.8	6.3	3.5
72	PST-9VN	Colonial	2.5	3.3	2.3	1.9	4.0	6.3
73	PST-91R B.S.	Colonial	2.4	3.1	1.7	2.5	3.7	4.7

(Continued)

Table 5 (continued).

Cultivar or Selection	Species	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Anthracnose ³ Aug. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.		
LSD at 5% =		0.9	1.1	1.0	1.1	2.8	2.6

¹9 = best turf quality

²9 = earliest spring green-up

³9 = least disease

Table 6. Performance of creeping bentgrass cultivars and selections in a fairway/tee trial seeded in October 2004 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Wear Turf Quality ² Avg.	Spring Green-up ³ April 2007	Dollar Spot ⁴ 2007	
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.				
	1	PST-EVX-Bulk	Velvet	7.0	7.4	6.8	6.7	8.3	5.3	6.7
	2	Villa	Velvet	6.6	6.9	6.7	6.0	7.4	5.7	6.0
	3	SR 7200	Velvet	6.2	6.5	6.1	5.8	6.9	5.0	6.0
	4	Greenwich	Velvet	6.0	6.4	6.3	5.5	7.6	4.0	4.7
	5	LDP Comp	Colonial	5.8	5.6	6.7	5.0	6.7	4.3	6.7
	6	SRX 1WM231	Creeping	5.7	6.7	6.1	4.5	6.5	3.3	4.3
	7	Declaration	Creeping	5.7	6.5	6.6	4.0	6.6	2.0	2.7
	8	PST-9VN	Colonial	5.7	5.0	6.3	5.7	4.8	6.0	6.7
	9	SRX 1WM213	Creeping	5.6	5.9	5.5	5.3	5.8	4.3	5.0
19	10	9111-6-12	Colonial	5.6	5.7	6.5	4.5	5.9	5.3	6.3
	11	BCD Comp	Colonial	5.6	6.1	6.4	4.2	4.9	4.7	5.3
	12	SRX 1WM385	Creeping	5.5	5.7	5.7	5.0	4.7	5.7	4.3
	13	9111-1-6	Colonial	5.4	4.7	6.0	5.7	5.7	5.3	5.7
	14	PST-SYN-9GPS	Colonial	5.4	5.6	5.7	5.0	4.6	5.7	6.3
	15	SRX 115-22	Colonial	5.4	5.7	6.1	4.3	6.7	5.7	5.0
	16	9107-6-12	Colonial	5.4	4.9	6.1	5.0	6.5	5.0	8.3
	17	SRX 1WM310Z	Creeping	5.3	6.2	5.1	4.5	6.1	2.7	4.0
	18	SRX 1WM Comp	Creeping	5.2	5.7	5.5	4.5	6.3	4.0	4.3
	19	9108-1 & 5	Colonial	5.1	5.6	5.6	4.2	5.7	4.3	6.0
	20	SRX 1W236	Creeping	5.1	6.0	5.5	3.8	6.9	3.7	4.0
	21	SRX 1WM232	Creeping	5.1	5.4	5.1	4.8	4.9	4.7	4.7
	22	SRX 1WM3	Creeping	5.0	5.6	4.9	4.5	5.8	5.3	4.0
	23	Glory	Colonial	5.0	5.0	5.9	4.0	4.0	4.7	3.7
	24	Shark	Creeping	4.9	6.0	5.4	3.3	6.7	2.7	2.7
	25	Crystal BlueLinks	Creeping	4.9	4.9	5.1	4.7	5.6	6.0	4.3

(Continued)

Table 6 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Wear Turf Quality ² Avg.	Spring Green-up ³ April 2007	Dollar Spot ⁴ 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
26	SRX 1WM39	Creeping	4.9	5.8	4.8	4.0	5.4	3.3	3.7
27	Penn G-2	Creeping	4.9	5.9	4.6	4.2	5.0	6.0	4.0
28	EBM Comp	Colonial	4.9	5.6	5.6	3.3	6.0	3.3	4.3
29	PST-9R3	Colonial	4.9	4.4	5.3	4.8	4.8	6.0	5.3
30	Penn A-2	Creeping	4.8	5.3	5.1	4.2	5.3	6.3	4.3
31	Kingpin	Creeping	4.8	4.9	4.8	5.0	5.0	3.7	4.3
32	SR 1150	Creeping	4.8	5.4	5.6	3.5	4.8	2.7	2.7
33	PST-SYN-ONCE	Creeping	4.8	5.2	4.7	4.3	6.4	4.0	5.3
34	L-93	Creeping	4.7	4.4	5.2	4.7	5.5	3.3	6.0
35	Tiger II	Colonial	4.7	4.9	5.8	3.5	5.4	4.7	4.3
36	9110-8,9 & 10	Colonial	4.7	5.5	6.5	2.2	3.8	3.0	3.3
37	Penneagle II	Creeping	4.7	4.6	5.0	4.5	6.3	5.7	4.0
38	Tyee	Creeping	4.7	5.3	4.8	4.0	5.9	4.7	2.7
39	PST-9PIN	Colonial	4.7	5.0	4.8	4.3	4.8	6.0	5.7
40	Penn G-1	Creeping	4.6	4.8	4.9	4.0	5.9	4.3	3.3
41	9118-1-6b	Colonial	4.6	4.2	5.5	4.0	5.8	5.0	4.0
42	PST-SyN-OSF	Creeping	4.6	5.1	4.5	4.2	5.7	4.7	3.7
43	SRX 7CRCO	Colonial	4.6	4.6	5.5	3.5	4.3	3.0	5.7
44	MacKenzie	Creeping	4.5	4.8	5.0	3.7	6.4	5.7	4.0
45	Alister	Colonial	4.5	4.8	5.3	3.3	5.0	5.7	2.3
46	PST-OHB Bulk	Creeping	4.5	5.2	4.4	3.8	4.9	5.3	4.3
47	9114-1-6	Colonial	4.5	3.8	5.6	4.0	5.8	4.7	5.3
48	9113-1&5	Colonial	4.5	4.6	5.3	3.5	4.1	5.0	7.0
49	IS-AP-14	Creeping	4.4	5.9	4.5	2.8	5.6	2.3	3.0
50	9109-6-12	Colonial	4.4	3.8	5.1	4.3	4.7	4.7	5.3

(Continued)

Table 6 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Wear Turf Quality ² Avg.	Spring Green-up ³ April 2007	Dollar Spot ⁴ 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
51	SR 7100	Colonial	4.4	4.2	5.0	4.0	4.3	4.7	5.3
52	SRX 1TR3E	Creeping	4.3	5.2	4.4	3.3	5.5	4.3	4.0
53	T-1	Creeping	4.3	4.3	4.3	4.3	5.5	3.3	3.3
54	Sandhill	Creeping	4.3	4.2	4.6	4.0	4.5	4.0	4.7
55	SRX 7EE5	Colonial	4.2	5.0	5.0	2.7	3.7	3.7	5.3
56	SRX 1G32	Creeping	4.2	5.0	4.5	3.0	6.3	5.0	3.0
57	SRX 7EE	Colonial	4.2	4.5	4.6	3.3	4.6	3.7	3.0
58	Penn G-6	Creeping	4.1	4.7	4.2	3.5	5.4	3.7	2.7
59	PST-ORF	Creeping	4.1	4.0	4.1	4.2	3.8	5.3	4.7
60	Penn A-1	Creeping	4.1	4.6	4.8	3.0	5.3	3.7	3.0
61	PST-SYN-016	Creeping	4.1	3.9	4.1	4.2	3.8	4.7	5.0
62	SR 7150	Colonial	4.0	4.0	4.7	3.3	3.7	4.7	3.7
63	SRX 1BLIE	Creeping	4.0	4.7	3.9	3.5	5.8	5.0	2.7
64	Benchmark DSR	Creeping	4.0	4.8	3.9	3.3	4.4	3.3	3.3
65	SRX 780-19	Colonial	4.0	4.1	4.4	3.5	3.6	2.7	5.7
66	PST-SYN-OHTY	Creeping	4.0	4.5	3.9	3.5	3.9	4.3	3.7
67	Alpha	Creeping	3.9	4.2	3.7	3.8	5.2	4.0	3.7
68	Independence	Creeping	3.9	4.4	3.6	3.7	6.8	4.3	2.3
69	9118-6-12	Colonial	3.8	4.0	4.6	2.8	4.8	4.3	4.7
70	Pennlinks II	Creeping	3.8	4.3	3.6	3.5	3.9	4.0	5.0
71	Penn A-4	Creeping	3.7	3.4	3.8	4.0	5.4	4.7	3.7
72	PST-91R B.S.	Colonial	3.7	3.7	3.8	3.7	3.0	4.7	6.7
73	SRX 7EE4	Colonial	3.7	4.0	4.4	2.7	3.0	4.0	5.0
74	Southshore	Creeping	3.7	3.1	3.9	4.0	4.0	5.0	3.7
75	Pennlinks	Creeping	3.6	3.6	3.6	3.5	4.5	3.7	3.7

(Continued)

Table 6 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Wear Turf Quality ² Avg.	Spring Green-up ³ April 2007	Dollar Spot ⁴ 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
76	Brighton	Creeping	3.6	3.7	3.7	3.5	3.1	4.3	3.3
77	Penneagle	Creeping	3.6	3.8	4.0	2.8	4.2	2.7	3.3
78	SR 1119	Creeping	3.6	3.4	3.8	3.5	4.0	4.7	3.3
79	Seaside II	Creeping	3.5	3.7	3.9	2.8	3.6	2.7	5.3
80	Putter	Creeping	3.5	3.6	3.9	3.0	4.4	2.7	4.3
81	SRX 781-21	Colonial	3.5	3.4	3.4	3.7	2.9	4.3	5.7
82	Century	Creeping	3.1	3.8	2.8	2.7	3.9	3.3	2.0
83	Providence	Creeping	3.1	3.2	3.7	2.3	2.6	3.3	3.3
84	Penncross	Creeping	3.1	3.1	3.2	3.0	2.5	3.0	4.3
85	Viper	Creeping	2.9	3.1	3.2	2.5	3.1	3.0	4.3
86	Crenshaw	Creeping	2.8	3.1	3.0	2.2	5.4	3.0	1.0
LSD at 5% =			0.7	0.8	0.8	1.4	1.2	1.9	2.2

¹9 = best turf quality
²9 = best turf quality under wear
³9 = earliest spring green-up
⁴9 = least disease

Table 7. Performance of creeping bentgrass cultivars and selections in a putting green trial seeded in September 2005 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality ¹ -----			Spring Green-up ² April 2007
			2006-2007 Avg.	2006 Avg.	2007 Avg.	
1	Tyee	Creeping	7.1	7.3	6.8	5.7
2	MacKenzie	Creeping	6.9	7.3	6.6	5.3
3	MacKenzie	Creeping	6.9	7.3	6.4	5.3
4	IS-AP-14	Creeping	6.8	7.1	6.5	6.0
5	EPC Comp	Creeping	6.8	7.1	6.6	6.0
6	DMC Comp	Creeping	6.8	6.9	6.7	6.0
7	OO7	Creeping	6.5	6.3	6.8	6.3
8	SRX 1BL1E	Creeping	6.4	6.4	6.4	5.7
9	IS-AP-15	Creeping	6.2	6.6	5.9	6.3
10	Declaration	Creeping	6.2	6.4	6.0	5.7
11	CP3 Comp	Velvet	6.1	6.1	6.2	5.7
12	Independence	Creeping	6.1	6.7	5.4	6.3
13	SR 1150	Creeping	6.0	5.7	6.3	4.7
14	IS-AC-4	Velvet	6.0	6.5	5.6	6.3
15	SRX 1TR3E	Creeping	5.7	5.9	5.6	5.7
16	Crysal BlueLinks	Creeping	5.6	6.0	5.1	4.3
17	PST-OMR Bulk	Creeping	5.6	6.1	5.1	4.7
18	Penn A-1	Creeping	5.6	5.9	5.2	4.7
19	SRX1WM Comp	Creeping	5.5	5.6	5.4	3.3
20	04-EBM Comp	Colonial	5.5	6.2	4.9	3.7
21	T-1	Creeping	5.5	6.2	4.8	4.0
22	Penn A-4	Creeping	5.5	5.9	5.0	4.7
23	PST-VHD Bulk	Velvet	5.5	5.5	5.5	5.3
24	Penn G-2	Creeping	5.4	5.9	5.0	3.3
25	SRX 146-12	Creeping	5.4	5.2	5.6	4.7

(Continued)

Table 7 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----			Spring Green-up ² April 2007
			2006-2007 Avg.	2006 Avg.	2007 Avg.	
26	CP2 Comp	Velvet	5.4	5.7	5.0	4.7
27	Penneagle II	Creeping	5.3	5.6	4.9	3.7
28	Penn G-6	Creeping	5.3	5.6	5.0	4.7
29	Legendary	Velvet	5.3	5.9	4.6	5.7
30	Villa	Velvet	5.2	5.5	4.9	4.7
31	CP1 Comp	Velvet	5.2	5.6	4.9	5.0
32	PST-Syn-ONB4	Creeping	5.2	5.3	5.0	4.7
33	FT1 Comp	Colonial	5.2	5.7	4.6	5.7
34	SRX 151-11E	Creeping	5.0	5.5	4.5	4.3
35	Greenwich	Velvet	5.0	5.7	4.4	4.7
36	PST-Syn-VH5	Velvet	5.0	5.1	4.8	4.0
37	PST-Syn-OHTY-05	Creeping	4.9	5.2	4.6	4.7
38	Alpha	Creeping	4.9	5.4	4.3	3.7
39	9BNC BS	Colonial	4.8	5.9	3.7	5.3
40	PST-OASF Bulk	Creeping	4.6	5.0	4.3	4.7
41	PST-Syn-VNY	Velvet	4.6	4.9	4.3	4.7
42	Southshore	Creeping	4.5	4.8	4.2	3.7
43	L-93	Creeping	4.5	4.7	4.3	4.0
44	SR 7200	Velvet	4.4	5.4	3.3	3.3
45	Sandhill	Creeping	4.3	4.6	3.9	3.7
46	Crenshaw	Creeping	4.3	5.0	3.6	2.7
47	PST-Syn-9B4	Colonial	4.2	5.0	3.5	3.3
48	Pennlinks II	Creeping	4.2	4.8	3.6	3.0
49	PST-09X Bulk	Creeping	4.2	3.8	4.4	4.0
50	PST-Syn-EV3S	Velvet	4.2	4.7	3.7	4.3

(Continued)

Table 7 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----			Spring Green-up ² April 2007
			2006-2007 Avg.	2006 Avg.	2007 Avg.	
51	Putter	Creeping	4.1	4.6	3.6	4.7
52	Pennway	Creep. Blend	4.0	4.2	3.8	4.0
53	SR 1119	Creeping	4.0	4.3	3.7	3.3
54	Line 4362	Poa reptans	4.0	4.9	3.1	5.0
55	Alister	Colonial	3.8	5.0	2.7	4.0
56	Line 4360	Poa reptans	3.8	4.5	3.2	3.7
57	Providence	Creeping	3.7	3.9	3.5	3.3
58	FT2 Comp	Colonial	3.7	4.0	3.4	4.0
59	Line 3879	Poa reptans	3.7	4.2	3.2	5.3
60	Line 4550	Poa reptans	3.6	4.7	2.6	5.7
61	Penneagle	Creeping	3.6	3.7	3.4	3.7
62	Glory	Colonial	3.6	4.5	2.6	4.0
63	Brighton	Creeping	3.5	4.0	3.1	3.3
64	Line 4370	Poa reptans	3.5	4.5	2.6	3.7
65	Penncross	Creeping	3.3	3.9	2.7	2.7
66	Pennlinks	Creeping	3.1	3.4	2.7	2.3
67	Streaker	Red Top	1.7	1.2	2.1	2.7
LSD at 5% =			0.7	0.8	0.9	1.9

¹9 = best turf quality

²9 = earliest spring green-up

Table 8. Performance of creeping bentgrass cultivars and selections in a fairway/tee trial seeded in September 2005 at North Brunswick, NJ.

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Brown Patch ³ 2007	Dollar Spot ³ 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
1	IS-AC-4	Velvet	6.3	5.2	7.0	6.8	8.3	8.2	6.5
2	CP3 Comp	Velvet	6.3	6.3	6.2	6.3	7.0	8.3	7.8
3	PST-VHD Bulk	Velvet	6.3	5.8	6.1	6.9	5.7	9.0	8.7
4	EPC Comp	Creeping	6.2	5.8	6.4	6.3	5.0	8.0	6.2
5	04-EBM Comp	Colonial	6.0	6.5	6.2	5.4	5.7	4.9	8.0
6	CP2 Comp	Velvet	5.8	5.8	5.6	6.0	5.7	8.4	7.5
7	PST-Syn-VH5	Velvet	5.8	5.3	5.7	6.3	5.0	8.3	8.0
8	IS-AP-15	Creeping	5.7	5.8	5.7	5.7	5.3	8.2	5.2
9	Declaration	Creeping	5.7	4.8	7.2	5.1	5.0	8.6	7.2
10	Greenwich	Velvet	5.6	5.3	6.6	5.0	6.7	8.8	6.2
11	FT1 Comp	Colonial	5.6	5.8	6.0	4.9	5.7	4.8	7.2
12	SRX 1WM Comp	Creeping	5.6	5.5	6.1	5.3	5.3	9.0	6.0
13	Legendary	Velvet	5.6	5.0	6.1	5.7	7.3	8.5	5.3
14	OO7	Creeping	5.4	5.7	5.9	4.8	3.3	8.7	5.2
15	Villa	Velvet	5.4	3.5	6.5	6.3	6.0	8.6	7.3
16	Crystal BlueLinks	Creeping	5.4	6.3	5.6	4.2	2.7	8.6	6.5
17	PST-Syn-ONB4	Creeping	5.4	5.8	5.3	4.9	4.3	8.5	6.7
18	PST-Syn-9NCS	Colonial	5.3	6.2	4.9	4.8	5.0	4.9	5.7
19	Tyee	Creeping	5.3	4.7	6.0	5.0	4.7	8.4	5.7
20	Penn A-1	Creeping	5.3	6.0	5.2	4.6	2.7	7.5	4.3
21	CP1 Comp	Velvet	5.2	4.5	5.4	5.7	5.7	8.8	8.3
22	DMC Comp	Creeping	5.2	5.3	5.6	4.7	4.7	8.4	4.2
23	Penneagle II	Creeping	5.1	5.7	5.0	4.8	2.7	8.8	4.8
24	SRX 1BL1E	Creeping	5.1	5.8	5.3	4.3	4.3	7.9	4.2
25	PST-Syn-OHTY-05	Creeping	5.1	7.8	4.3	3.2	4.0	8.2	4.3

(Continued)

Table 8 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Brown Patch ³ 2007	Dollar Spot ³ 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
26	PST-Syn-VNY	Velvet	5.1	4.8	5.3	5.2	5.3	7.9	6.7
27	SRX 1TR3E	Creeping	5.0	5.8	5.2	4.0	4.0	7.6	4.2
28	LT3 Comp	Colonial	5.0	5.3	4.9	4.8	5.7	5.8	7.3
29	Alister	Colonial	5.0	5.2	5.2	4.6	6.0	4.7	5.0
30	Penn G-2	Creeping	5.0	5.3	5.1	4.5	4.0	7.6	3.5
31	Alpha	Creeping	5.0	5.7	5.4	3.9	4.0	8.3	5.3
32	FT2 Comp	Colonial	4.9	4.2	5.1	5.3	4.7	5.7	6.5
33	SR 7200	Velvet	4.9	4.0	5.8	4.7	4.3	7.1	7.8
34	L-93	Creeping	4.8	5.2	4.5	4.8	4.0	8.4	6.7
35	Independence	Creeping	4.8	5.2	4.7	4.6	3.3	8.3	3.3
36	PST-Bulk-VRZ	Velvet	4.8	5.2	5.0	4.4	4.0	7.7	8.0
37	PST-9NBC BS	Colonial	4.8	4.3	5.4	4.6	5.3	4.6	5.3
38	IS-AT-8	Colonial	4.7	4.2	5.3	4.7	6.0	6.0	4.7
39	IS-AP-14	Creeping	4.7	4.3	5.4	4.5	3.7	8.7	3.5
40	Penn A-4	Creeping	4.7	4.8	4.8	4.6	3.0	7.8	4.2
41	Tiger II	Colonial	4.7	4.5	5.0	4.5	5.3	5.4	5.7
42	Pennlinks II	Creeping	4.7	6.3	4.4	3.4	3.0	8.9	7.3
43	Southshore	Creeping	4.6	5.7	3.5	4.5	4.0	8.3	4.8
44	T-1	Creeping	4.6	5.5	4.8	3.5	3.3	8.8	4.2
45	SRX 7CRCO	Creep/Col	4.5	5.2	4.7	3.7	4.7	5.3	5.5
46	LT1 Comp	Colonial	4.5	4.2	4.9	4.6	3.7	5.6	7.0
47	PST-Syn-9MS	Colonial	4.5	4.0	5.0	4.6	5.7	3.5	7.0
48	PST-OAS Bulk	Creeping	4.5	5.0	4.9	3.6	4.0	7.8	4.0
49	Penn G-6	Creeping	4.5	4.5	4.5	4.6	4.0	8.2	3.8
50	LT2 Comp	Colonial	4.5	4.5	5.0	3.9	4.0	5.7	7.8

(Continued)

Table 8 (continued).

	Cultivar or Selection	Species	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Brown Patch ³ 2007	Dollar Spot ³ 2007
			2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
51	SRX 7EE4	Colonial	4.4	5.8	4.3	3.2	4.3	4.0	6.2
52	PST-OBEL Bulk	Creeping	4.4	5.0	4.6	3.6	3.3	7.6	5.2
53	Glory	Colonial	4.3	4.2	4.5	4.4	5.3	3.9	6.5
54	PST-OVE Bulk	Creeping	4.3	5.8	4.2	2.8	2.3	8.3	4.7
55	PST-Syn-9B4	Colonial	4.2	4.2	4.9	3.7	3.7	4.3	5.8
56	SRX 7EE	Colonial	4.2	4.2	4.9	3.6	4.0	4.1	6.3
57	SRX 1PDH	Creeping	4.2	3.7	4.9	4.1	2.7	8.4	5.5
58	Sandhill	Creeping	4.2	5.2	4.0	3.6	2.7	8.2	4.7
59	Brighton	Creeping	4.0	5.3	3.5	3.1	2.3	8.0	4.0
60	SRX 7EE5	Colonial	4.0	4.2	4.5	3.2	4.3	4.0	6.0
61	SRX 151-11E	Creeping	3.9	4.8	4.2	2.7	3.3	8.7	1.8
62	Pennway	Creeping	3.9	4.0	3.8	3.9	3.3	8.7	5.7
63	SR 7150	Colonial	3.9	5.2	3.8	2.7	3.3	3.8	5.3
64	SRX 146-12	Creeping	3.9	4.2	4.2	3.3	3.0	8.1	2.2
65	Penneagle	Creeping	3.9	4.2	3.4	4.2	2.7	8.0	4.8
66	Penncross	Creeping	3.9	5.3	3.3	3.1	1.3	8.3	4.5
67	Crenshaw	Creeping	3.9	5.0	3.4	3.4	2.3	8.3	2.2
68	Pennlinks	Creeping	3.9	5.0	3.3	3.3	1.7	8.0	4.7
69	PST-OMR Bulk	Creeping	3.9	4.3	4.1	3.2	2.3	8.5	5.7
70	SR 1119	Creeping	3.8	4.3	3.9	3.3	2.0	8.6	5.2
71	Putter	Creeping	3.8	4.7	3.6	3.3	4.0	7.8	2.8
72	SR 7100	Colonial	3.8	3.5	4.4	3.5	3.7	4.6	5.5
73	Seaside II	Creeping	3.7	3.7	3.7	3.8	1.7	8.1	5.5
74	Providence	Creeping	3.7	4.7	3.5	2.9	3.3	8.7	4.8
75	PST-OASF Bulk	Creeping	3.6	4.2	3.5	3.0	3.7	7.8	5.8

(Continued)

Table 8 (continued).

Cultivar or Selection	Species	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Brown Patch ³ 2007	Dollar Spot ³ 2007	
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.				
76	PST-09X Bulk	Creeping	3.3	3.2	3.9	2.8	2.7	7.6	6.3
77	PST-Syn-9505	Colonial	3.1	3.8	3.2	2.2	2.3	6.2	4.2
78	Streaker	Red Top	1.6	1.8	1.5	1.3	2.7	6.3	6.5
LSD at 5% =			0.9	1.7	0.8	1.0	1.8	1.1	1.8

¹9 = best turf quality

²9 = earliest spring green-up

³9 = least disease

Table 9. Performance of creeping and colonial bentgrass cultivars and selections in a putting green trial seeded in September 2006 at North Brunswick, NJ.

	Cultivar or Selection	Species	Turf Quality ¹ 2007	Turf Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Brown Patch ⁴ July 2007	Brown Patch Aug. 2007	Brown Patch 2007
1	TDN2 Comp	Creeping	7.4	6.3	6.0	7.3	5.3	6.3
2	95-N	Creeping	6.7	8.7	5.0	7.0	4.0	5.5
3	Shark	Creeping	6.7	8.0	5.7	7.3	3.0	5.2
4	95-S	Creeping	6.7	7.0	6.0	7.7	3.0	5.3
5	PST-Syn-0JO	Creeping	6.7	4.7	4.3	6.3	5.3	5.8
6	IS-AP-15	Creeping	6.6	7.7	5.7	6.3	3.7	5.0
7	9058 - 1-4 H04TPS 294-4	Creeping	6.6	8.7	5.7	6.3	3.3	4.8
8	Authority	Creeping	6.6	8.0	4.7	7.0	3.0	5.0
9	OO7	Creeping	6.6	9.0	4.0	8.3	3.7	6.0
10	IS-AP-14	Creeping	6.3	9.0	3.7	6.3	4.0	5.2
11	GMC Comp	Creeping	6.3	7.7	6.3	6.7	3.0	4.8
12	RH 12-34	Creeping	6.2	7.3	3.0	7.7	4.3	6.0
13	GEC Comp	Creeping	6.2	8.3	5.7	6.3	2.0	4.2
14	RH 931	Creeping	6.2	7.3	3.3	7.7	4.7	6.2
15	PST-0JD Bulk	Creeping	6.0	5.7	5.3	8.3	6.0	7.2
16	TDN1 Comp	Creeping	6.0	6.3	4.7	7.7	4.3	6.0
17	9002 - 1-3 4-3	Creeping	6.0	8.7	6.0	7.3	4.3	5.8
18	OO7 / SR 1150	Creeping	5.9	8.7	4.3	7.7	4.3	6.0
19	OO7 / Mackenzie / Tyee	Creeping	5.9	8.0	3.7	8.7	5.7	7.2
20	9014 - 4-6 9-4	Creeping	5.9	9.0	4.3	6.3	3.3	4.8
21	AFM Comp	Creeping	5.8	8.0	6.3	7.3	3.7	5.5
22	Independence	Creeping	5.7	7.0	4.0	6.3	4.7	5.5
23	RH 8-4	Creeping	5.7	8.3	2.7	7.7	4.3	6.0
24	9012 - 4-6 8-7	Creeping	5.7	8.0	3.0	6.3	3.7	5.0
25	Tyee / SR 7200	Cr. Blend	5.7	8.0	4.7	7.7	6.0	6.8

(Continued)

Table 9 (continued).

	Cultivar or Selection	Species	Turf Quality ¹ 2007	Turf Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Brown Patch ⁴ July 2007	Brown Patch Aug. 2007	Brown Patch 2007
26	Tyee	Creeping	5.7	8.7	3.3	6.7	4.3	5.5
27	9085 - 1-5 H04TPF 195 - 7-9	Creeping	5.6	6.7	6.0	7.3	3.7	5.5
28	Tyee / OO7	Creeping	5.6	8.7	3.7	7.0	4.3	5.7
29	9014 - 1-3 9-3	Creeping	5.5	7.0	4.7	6.7	4.0	5.3
30	Benchmark	Creeping	5.4	7.3	4.3	8.3	4.3	6.3
31	FEC Comp	Creeping	5.4	6.0	5.3	6.7	2.3	4.5
32	OO7 / Mackenzie	Creeping	5.4	7.3	4.3	7.7	4.0	5.8
33	Declaration	Creeping	5.4	9.0	5.7	7.7	4.3	6.0
34	RH 1-5	Creeping	5.4	8.0	3.5	6.0	4.5	5.3
35	9020 - 1-3 11-1	Creeping	5.2	7.0	5.3	6.0	3.7	4.8
36	9039 04S-90-5 FDS2-1	Creeping	5.2	7.7	4.7	7.7	3.3	5.5
37	Mackenzie	Creeping	5.1	8.3	4.0	6.0	5.3	5.7
38	SRX 1WM	Creeping	5.1	7.3	5.0	6.3	4.0	5.2
39	95-TC	Creeping	5.0	8.3	5.0	5.7	3.7	4.7
40	LMC Comp	Colonial	5.0	6.3	5.3	5.0	4.3	4.7
41	9020 - 4-6 11-2	Creeping	5.0	7.3	4.3	7.7	2.7	5.2
42	LEB Comp	Colonial	5.0	5.0	5.7	5.7	5.3	5.5
43	9034 - 1-6 HTE-2	Creeping	4.9	6.7	4.0	6.7	2.7	4.7
44	Ninety-Six Two / Mackenzie	Creeping	4.9	7.0	4.0	6.7	4.7	5.7
45	OO7 / SR 1119	Creeping	4.9	8.0	3.3	6.7	5.0	5.8
46	9008 - 1-3 7-3	Creeping	4.8	6.0	4.3	7.7	4.7	6.2
47	Mackenzie / Sandhill	Creeping	4.8	8.0	3.0	6.0	4.0	5.0
48	Cobra 2	Creeping	4.8	7.3	4.0	5.3	5.0	5.2
49	Ninety-Six Two / Sandhill	Creeping	4.8	6.7	3.0	5.7	4.3	5.0
50	T-1	Creeping	4.8	8.7	3.7	6.7	3.3	5.0

(Continued)

Table 9 (continued).

	Cultivar or Selection	Species	Turf Quality ¹ 2007	Turf Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Brown Patch ⁴ July 2007	Brown Patch Aug. 2007	Brown Patch 2007	
	51	9021 - 1-3 11-3	Creeping	4.7	5.7	5.3	7.7	5.7	6.7
	52	SR 1150	Creeping	4.7	7.3	3.7	6.3	5.0	5.7
	53	Penn A-4	Creeping	4.6	6.7	2.7	6.0	2.7	4.3
	54	Ninety-Six Two	Creeping	4.5	8.3	3.7	6.0	5.0	5.5
	55	Alpha	Creeping	4.3	8.3	4.0	6.0	4.7	5.3
	56	SR 1150 / SR 1119	Creeping	4.2	8.3	3.0	6.3	4.7	5.5
	57	9313 - 10-12 H04TP 81-11	Colonial	4.2	5.3	5.7	3.7	2.0	2.8
	58	Penneagle II	Creeping	4.1	9.0	4.3	6.7	4.7	5.7
	59	KingPin	Creeping	4.1	6.3	2.3	5.7	3.7	4.7
32	60	9027 - 4-6 12-2	Creeping	4.1	7.7	5.7	8.0	3.3	5.7
	61	DEB Comp	Colonial	4.1	5.7	5.7	5.3	2.7	4.0
	62	Imperial	Creeping	4.1	9.0	2.0	6.0	2.7	4.3
	63	Mackenzie / Penn G-1	Creeping	4.0	7.0	2.7	6.0	3.3	4.7
	64	9009 - 4-6 8-2	Creeping	4.0	7.7	3.7	7.3	5.0	6.2
	65	DMB Comp	Colonial	4.0	6.3	5.0	4.7	3.3	4.0
	66	95-W	Creeping	3.8	8.0	3.0	7.0	5.7	6.3
	67	Southshore	Creeping	3.8	8.7	3.3	7.0	3.3	5.2
	68	9355 - 6 H04F-170	Colonial	3.8	6.0	6.5	4.5	3.0	3.8
	69	Penn G-1	Creeping	3.8	8.7	3.7	5.0	3.7	4.3
	70	Penncross	Creeping	3.7	8.7	3.3	5.0	3.3	4.2
	71	9328 - 1-3,5 H04TP 134-4	Colonial	3.6	5.3	5.0	5.3	3.3	4.3
	72	Backspin	Creeping	3.6	9.0	3.0	6.3	4.3	5.3
	73	DBN Comp	Colonial	3.5	5.3	4.7	5.3	3.0	4.2
	74	9314 - 6-12 H04TP 140-8	Colonial	3.5	5.3	5.7	4.7	2.0	3.3
	75	Pennlinks II	Creeping	3.4	9.0	4.0	7.3	4.0	5.7

(Continued)

Table 9 (continued).

	Cultivar or Selection	Species	Turf Quality ¹ 2007	Turf Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Brown Patch ⁴ July 2007	Brown Patch Aug. 2007	Brown Patch 2007
	76 9316 - 2,3,5 H04TP 161-4	Colonial	3.4	4.7	4.0	4.0	3.3	3.7
	77 Sandhill	Creeping	3.4	4.3	4.3	7.0	4.7	5.8
	78 SR 1119	Creeping	3.3	8.3	2.7	7.0	5.0	6.0
	79 Century	Creeping	3.3	3.0	3.7	6.7	3.3	5.0
	80 Tiger II	Colonial	3.2	6.0	5.3	5.3	2.7	4.0
	81 L-93	Creeping	3.1	9.0	1.0	6.0	4.3	5.2
	82 9327 - 1-6 H04TP 145-9	Colonial	2.9	4.7	4.0	4.7	3.0	3.8
	83 9310 - 1-6 H04TP 158-2	Colonial	2.9	4.7	4.7	4.0	2.3	3.2
	84 Providence	Creeping	2.8	9.0	3.0	6.3	5.0	5.7
33	85 Putter	Creeping	2.8	8.0	3.0	6.0	4.0	5.0
	86 Brighton	Creeping	2.8	8.7	2.3	6.0	3.0	4.5
	87 PST-0166 Bulk	Creeping	2.7	8.3	1.7	6.3	5.3	5.8
	88 9343 - 6 H04F-135	Colonial	2.5	3.3	4.3	4.0	2.7	3.3
	89 SR 7100	Colonial	2.3	6.0	5.0	4.3	2.0	3.2
	90 Brighton / Sandhill	Creeping	2.3	7.7	2.3	5.7	3.7	4.7
	LSD at 5% =		0.9	1.5	1.9	1.9	2.0	1.6

¹9 = best turf quality

²9 = best turf establishment

³9 = earliest spring green-up

⁴9 = least disease

Table 10. Performance of velvet bentgrass cultivars and selections in a putting green trial seeded in September 2006 at North Brunswick, NJ.

Cultivar or Selection	Turf Quality ¹ 2007	Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Cover April 2007 (%)	Brown Patch ⁴ Aug. 2007
1 Villa	6.5	8.3	5.7	7.7	7.3
2 DDV Comp	6.3	8.0	4.3	6.7	8.3
3 Legendary	5.9	9.0	4.3	7.0	5.7
4 IS-AC-4	5.8	8.7	4.7	6.7	6.7
5 SMV Comp	5.7	8.0	3.7	5.3	7.3
6 9154 - 6-12 H04TP 179-11	5.3	7.0	5.0	6.7	6.3
7 Greenwich	4.9	8.0	4.3	6.7	5.0
8 DCV Comp	4.9	6.3	4.3	5.7	7.3
9 9155 - 6-12 H04TP 178-10	4.6	4.7	4.0	5.7	6.0
10 Vesper	4.3	8.0	4.0	6.7	5.7
11 Venus	4.0	5.7	2.7	5.7	5.3
12 9157 - 7-12 H04TP 179-7	4.0	3.3	3.7	5.3	6.7
13 9152 - 6-12 H04TP 276-12	3.7	4.0	3.3	4.3	6.0
14 SR 7200	3.3	8.3	3.3	6.3	4.3
15 9145 - 1-5 H04TP 187-6	3.1	2.3	4.0	4.0	6.3
16 9168 - 1-12 04S-129-11 H03F-116	2.7	2.0	3.3	4.3	5.7
17 9174 - 1-12 04S-177-8 H03F-109	2.6	2.0	3.7	3.7	5.3
18 9159 - 1-5 H04TP 264 - 7-9	2.2	1.7	4.0	3.7	4.7
19 9148 - 7-12 H04TP 193-12	2.1	1.3	3.0	3.3	5.3
20 9153 - 7-11 H04TP 208-2	1.9	2.0	3.7	3.7	4.7
LSD at 5% =	1.2	1.3	2.0	1.3	1.9

¹9 = best turf quality

²9 = best turf establishment

³9 = earliest spring green-up

⁴9 = least disease

Table 11. Performance of creeping and colonial bentgrass cultivars and selections in a fairway/tee trial seeded in September 2006 at North Brunswick, NJ.

	Cultivar or Selection	Species	Turf Quality ¹ 2007	Turf Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Dollar Spot ⁴ Sept. 2007	Brown Patch ⁴ 2007
1	FEC Comp	Creeping	7.0	8.7	5.7	7.7	8.0
2	Tyee / OO7	Creeping	6.7	9.0	5.0	6.0	8.3
3	GMC Comp	Creeping	6.6	6.7	6.0	6.0	7.5
4	Declaration	Creeping	6.3	9.0	5.3	8.7	6.8
5	OO7	Creeping	6.3	8.7	5.7	7.3	7.3
6	SRX 1WM Comp	Creeping	6.2	7.7	5.0	6.7	7.5
7	GEC Comp	Creeping	6.2	7.3	4.3	6.7	7.0
8	Authority	Creeping	6.0	9.0	5.7	4.7	8.0
9	LEB Comp	Colonial	6.0	6.0	4.7	9.0	5.3
10	LMC Comp	Colonial	6.0	7.0	5.3	7.7	4.7
11	SR 1150	Creeping	6.0	9.0	3.7	6.0	7.8
12	Tyee / SR 7200	Crp blend	5.9	7.7	6.0	6.3	7.0
13	DEB Comp	Colonial	5.9	6.3	4.7	8.3	5.0
14	OO7 / SR 1150	Creeping	5.9	9.0	4.3	5.7	7.5
15	9314 - 6-12 H04TP 140-8	Colonial	5.8	6.7	5.0	8.0	6.0
16	DBN Comp	Colonial	5.8	6.0	6.0	7.3	4.5
17	9330 - 7-9	Colonial	5.7	7.3	3.7	8.0	3.8
18	9039 04S-90-5 FDS2-1	Creeping	5.7	8.3	4.7	7.3	6.7
19	DMB Comp	Colonial	5.7	7.0	4.7	7.7	4.8
20	Tyee	Creeping	5.7	9.0	4.0	4.7	6.5
21	IS-AP-14	Creeping	5.6	9.0	5.7	4.7	7.3
22	SR 1150 / SR 1119	Creeping	5.6	9.0	4.0	5.0	7.8
23	9034 - 1-6 HTE-2	Creeping	5.6	8.0	5.7	7.0	8.0
24	Shark	Creeping	5.4	9.0	4.3	4.3	7.5
25	Penn A-4	Creeping	5.4	8.3	4.7	4.3	5.5

(Continued)

Table 11 (continued).

	Cultivar or Selection	Species	Turf Quality ¹ 2007	Turf Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Dollar Spot ⁴ Sept. 2007	Brown Patch ⁴ 2007	
	26	Cobra 2	Creeping	5.3	8.7	3.7	4.7	6.7
	27	9312 - 10-12 H04TP 155-11	Colonial	5.3	6.3	4.0	8.7	4.0
	28	Penn A-1	Creeping	5.3	9.0	6.0	3.7	6.5
	29	OO7 / Mackenzie / Tyee	Creeping	5.2	8.7	5.3	4.3	7.2
	30	OO7 / SR 1119	Creeping	5.2	9.0	4.7	5.0	6.7
	31	AFM Comp	Creeping	5.2	8.0	4.0	5.0	6.7
	32	Ninety-Six Two / Sandhill	Creeping	5.2	8.3	4.7	5.0	6.7
	33	Tiger II	Colonial	5.1	6.7	3.0	7.0	3.2
	34	9328 - 1-3,5 H04TP 134-4	Colonial	5.1	5.0	3.7	7.3	6.0
36	35	9355-6 H04F-170	Colonial	5.1	6.7	5.7	7.0	4.3
	36	Mackenzie / Penn G-1	Creeping	5.1	8.7	4.3	5.3	5.7
	37	9316 - 2,3,5 H04TP 161-4	Colonial	5.1	4.7	3.7	7.3	5.7
	38	SRX 7CRCO	Colonial	5.0	6.0	4.7	7.7	4.0
	39	RH 931	Creeping	5.0	9.0	3.0	4.0	7.2
	40	Benchmark	Creeping	5.0	6.7	4.7	7.0	6.8
	41	9313 - 10-12 H04TP 81-11	Colonial	4.9	6.3	4.3	8.7	5.2
	42	Penn G-1	Creeping	4.9	8.3	4.0	4.7	6.7
	43	OO7 / Mackenzie	Creeping	4.9	9.0	4.3	3.0	6.8
	44	Independence	Creeping	4.9	8.7	4.7	2.7	7.0
	45	9327 - 1-6 H04TP 145-9	Colonial	4.9	5.7	3.3	7.7	4.8
	46	Mackenzie / Sandhill	Creeping	4.9	7.7	4.0	4.0	7.0
	47	PST-Syn-0JO	Creeping	4.8	5.0	5.0	3.0	7.2
	48	KingPin	Creeping	4.8	7.7	4.3	7.0	6.2
	49	SR 7100	Colonial	4.8	6.0	2.3	7.3	3.3
	50	9333 - 6-10 H04TP 3-10	Colonial	4.8	5.7	3.3	9.0	4.3

(Continued)

Table 11 (continued).

	Cultivar or Selection	Species	Turf Quality ¹ 2007	Turf Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Dollar Spot ⁴ Sept. 2007	Brown Patch ⁴ 2007	
	51	9014 - 1-3 9-3	Creeping	4.7	7.0	4.7	5.3	7.3
	52	T-1	Creeping	4.7	9.0	4.3	4.0	7.7
	53	9343-6 H04F-135	Colonial	4.7	5.0	5.0	7.7	4.8
	54	9310 - 1-6 H04TP 158-2	Colonial	4.5	4.0	3.0	8.0	3.5
	55	9319 - 8-10 H04TP 97-7	Colonial	4.5	3.7	3.7	8.7	5.5
	56	Mackenzie	Creeping	4.5	9.0	3.3	3.7	6.7
	57	Putter	Creeping	4.4	8.7	4.3	3.0	6.7
	58	Alpha	Creeping	4.4	8.7	4.7	2.3	6.8
	59	Brighton	Creeping	4.4	7.7	4.0	5.7	4.7
37	60	SR 1CCR2	Creeping	4.3	5.0	5.0	7.7	3.7
	61	L-93	Creeping	4.3	9.0	3.0	4.7	6.0
	62	SR 1119	Creeping	4.3	9.0	4.3	4.0	6.2
	63	Penn G-2	Creeping	4.3	8.0	4.7	3.3	5.8
	64	Ninety-Six Two	Creeping	4.3	9.0	5.3	2.0	6.8
	65	Backspin	Creeping	4.3	9.0	5.7	2.7	6.7
	66	9027 - 4-6 12-2	Creeping	4.3	6.3	5.3	7.3	6.2
	67	Glory	Colonial	4.2	8.3	3.7	5.7	3.5
	68	Ninety-Six Two / Mackenzie	Creeping	4.2	9.0	4.0	3.0	6.8
	69	Imperial	Creeping	4.2	8.7	5.0	3.0	5.8
	70	9307 - 10-12 H01TP 254-7	Colonial	4.1	4.3	3.3	8.3	4.5
	71	Sandhill	Creeping	4.1	5.0	4.0	5.3	5.7
	72	SRX 7EE	Colonial	3.9	6.7	3.3	7.0	4.2
	73	Penncross	Creeping	3.9	9.0	3.7	1.3	6.3
	74	Penn G-6	Creeping	3.8	9.0	4.0	2.3	5.8
	75	Southshore	Creeping	3.8	8.7	3.3	2.3	6.7

(Continued)

Table 11 (continued).

	Cultivar or Selection	Species	Turf Quality ¹ 2007	Turf Establishment ² Oct. 2006	Spring Green-up ³ April 2007	Dollar Spot ⁴ Sept. 2007	Brown Patch ⁴ 2007
76	Providence	Creeping	3.6	9.0	3.7	5.3	5.8
77	Brighton / Sandhill	Creeping	3.5	8.3	4.0	5.0	5.7
78	SR 7150	Colonial	3.4	8.0	3.7	6.3	2.8
79	Century	Creeping	3.4	3.3	4.0	3.0	4.8
80	Seaside II	Creeping	3.3	9.0	2.3	4.0	4.0
LSD at 5% =			0.9	1.2	1.6	2.2	1.6

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¹9 = best turf quality

²9 = best turf establishment

³9 = earliest spring green-up

⁴9 = least disease

Table 12. Maintenance practices performed in 2007 on bentgrass trials at North Brunswick, NJ.

Table	Test	Fertility ¹	Mowing Height (inches)	Cultivation/Top Dress	Fungicides	Insecticides	Herbicides
1	2003 Greens (NTEP)	2.1	1/8	June–top-dressed sand	May/June/July–Pentathlon; May–Emerald/Heritage; July–Spectro 90/Subdue Maxx; Aug.–Banner Maxx; Sept.–Daconil Ultrex	Aug.–Talstar (cut-worms)	May–Dimension (pre-emergence weeds)
2	2003 Greens	2.1	1/8	June–top-dressed sand	May/June/July–Pentathlon; May–Emerald/Heritage; July–Spectro 90/Subdue Maxx; Aug.–Banner Maxx	Aug.–Talstar (cut-worms)	May–Dimension (pre-emergence weeds)
3	2003 Fairway (NTEP)	1.3	3/8	None	May/Aug./Sept.–Daconil Ultrex; May–Emerald; June–Curalan; Aug.–Subdue Maxx/Banner Maxx	June–Merit (grubs); July–Talstar (cut-worms)	May/June–Dimension (pre-emergence weeds)
4	2003 Fairway	1.3	3/8	None	June–Curalan; Aug.–Subdue Maxx/Daconil Ultrex/Banner Maxx	June–Merit (grubs)	May/June–Dimension (pre-emergence weeds)
5	2004 Greens	1.7	1/8	None	July/Aug.–Curalan; July/Aug.–Prostar; Oct.–Emerald	June–Merit (grubs); July–Talstar (cut-worms)	May/June–Dimension (pre-emergence weeds)

Table 12 (continued).

Table	Test	Fertility ¹	Mowing Height (inches)	Cultivation/ Top Dress	Fungicides	Insecticides	Herbicides
6	2004 Fairway	1.5	3/8	None	June–Curalan;	June–Merit (grubs); July–Talstar (cut-worms)	May/June–Dimension (pre-emergence weeds)
7	2005 Greens	1.7	1/8	June–top-dressed sand	July–Pentathlon; Oct.–Daconil Ultrex/Banner Maxx	May–Talstar (cut-worms); June–Merit (grubs)	May/June–Dimension (pre-emergence weeds)
8	2005 Fairway	1.5	3/8	None	June/July–Curalan; Oct.–Emerald	July–Talstar (cut-worms)	May/June–Dimension (pre-emergence weeds)
9	2006 Greens	2.6	1/8	None	July–Spectro 90/Subdue Maxx; Aug.–Prostar/Daconil	June–Merit (grubs)	May/June–Dimension (pre-emergence weeds)
10	2006 Velvet	2.6	1/8	None	July–Spectro 90/Subdue Maxx; Aug.–Daconil	June–Merit (grubs)	June–Dimension (pre-emergence weeds)
11	2006 Fairway	2.4	3/8	None	Oct.–Daconil Ultrex	June–Merit (grubs)	June–Dimension (pre-emergence weeds); July–Lontrel (clover)

¹Annual nitrogen applied (lb/1000 ft²)



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.