

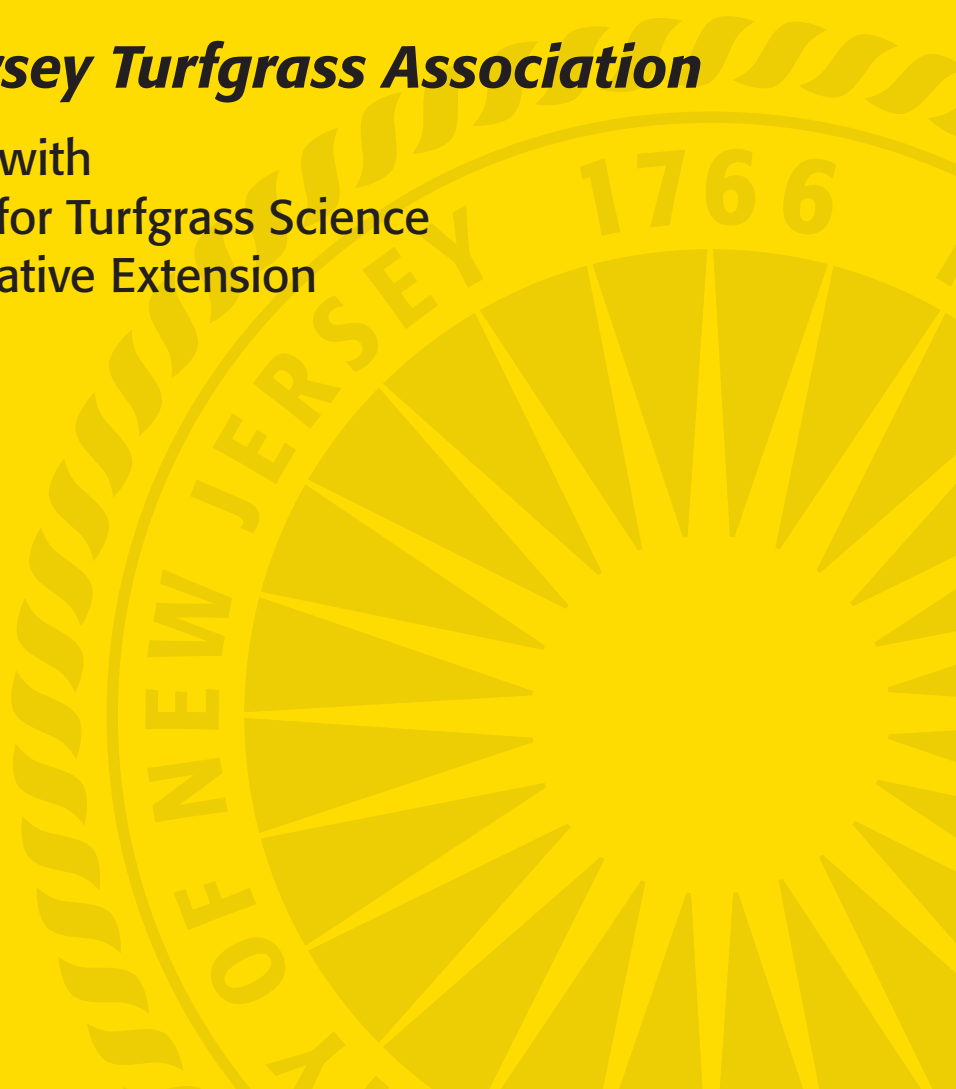
RUTGERS

New Jersey Agricultural
Experiment Station

2007 Turfgrass Proceedings

The New Jersey Turfgrass Association

In Cooperation with
Rutgers Center for Turfgrass Science
Rutgers Cooperative Extension



2007 RUTGERS TURFGRASS PROCEEDINGS

of the

New Jersey Turfgrass Expo December 4-6, 2007 Trump Taj Mahal Atlantic City, New Jersey

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.

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 PERENNIAL RYEGRASS CULTIVARS AND SELECTIONS IN NEW JERSEY TURF TRIALS

Melissa M. Wilson, William A. Meyer, C. Reed Funk, Stacy A. Bonos, Ronald F. Bara,
William K. Dickson, Dirk A. Smith, Jonathan M. Bokmeyer, and Eugeniusz Szerszen¹

Perennial ryegrass (*Lolium perenne* L.) is a cool-season, bunch type grass that performs well in a wide variety of soil conditions. Perennial ryegrass prefers to be planted in full sun but will tolerate light shade. It is often planted in mixtures with slower germinating grasses such as Kentucky bluegrass (*Poa pratensis* L.) and the fine fescues (*Festuca* spp.) to help prevent soil erosion during lawn establishment. Perennial ryegrass is also an important pasture and forage grass included in many pasture seed mixes, and is also used in the southern United States for overseeding winter dormant lawns and athletic facilities. The development of improved perennial ryegrass cultivars continues at the New Jersey Agricultural Experiment Station as well as other research facilities.

Turfgrass breeders and researchers are continuing to research the beneficial role of endophytes in turfgrasses. Endophytes are naturally occurring fungi that live within the leaf, sheath, and stem tissues of certain grasses. Many perennial ryegrasses with the *Neotyphodium lolii* endophyte have enhanced insect resistance and stress tolerance. The endophyte fungus also produces toxins, however, that can cause serious health problems in grazing livestock. Thus perennial ryegrass with high levels of endophyte should not be used in pasture situations. The Rutgers turfgrass breeding program travels internationally in an effort to acquire new sources of germplasm containing this endophyte.

PROCEDURES

Six perennial ryegrass trials were established between 2004 and 2007. Five of the tests were seeded at the Plant Biology and Pathology Research and Extension Farm Adelphia, NJ (Tables 1, 3 to 6),

and one test was seeded at the Rutgers Horticultural Research Farm in North Brunswick, NJ (Table 2). The five Adelphia tests were hand sown with 0.88 oz of seed into 3 x 5 ft plots (3.7 lb. seed/1000 ft²). The North Brunswick test was hand sown with 2.1 oz into 3.5 x 5.5 ft plots (6.8 lb. seed /1000 ft²). All tests were arranged in a randomized complete block design with three replications, and plots had a 6-inch unseeded border to limit contamination.

A spring application of Dimension was used to control crabgrass on all tests in Tables 1, 3, and 4. The 2005 and 2006 Adelphia tests (Table 3 and 4) were also sprayed with the postemergence herbicides 2-4-D, Banvel, and MCPP for broadleaf weed control in May. In August, tests reported in Tables 1, 3, and 4 were sprayed with Dimension for control of annual bluegrass (*Poa annua* L.). All Adelphia trials (Tables 1, 3 to 7) were sprayed in early November with 2-4-D, Banvel, and MCPP for postemergence broadleaf weed control.

The North Brunswick test (Table 2) received an early June application of Turflon + Lontrel for postemergence control of broadleaf weeds. Dimension 1E was applied in early May and Dimension 40WP was applied in late June for preemergence crabgrass control. The North Brunswick test also received an early June application of Heritage for red thread/pink patch control.

In August, a tank mix of Subdue Maxx + Daconil Ultrex + Banner Maxx was used to control Pythium root disease, brown patch, and dollar spot on the North Brunswick test (Table 2). Daconil was applied again in late August for additional brown patch control. All tests represented in Tables 1 to 4 were treated in June with an application of Merit for grub control.

¹Field Researcher IV, Research Professor, Research Professor, Assistant Professor, Principal Laboratory Technician, Turfgrass Research Farm Supervisor, Principal Laboratory Technician, Graduate Assistant, and Senior Greenhouse and Field Technician, respectively, New Jersey Agricultural Experiment Station, School of Environmental and Biological Sciences, Rutgers, The State University of New Jersey, New Brunswick, NJ 08901-8520.

The annual rate of nitrogen and mowing height for each test is presented in Table 7. Single applications of fertilizer did not exceed 1.0 lb nitrogen/1000 ft². The amount and timing of nitrogen applied to the turf varied to encourage disease and other stresses. Tests were mowed regularly with reel mowers to maintain a 1.5-inch height of cut. Rotary mowers were occasionally used to cut off reproductive tillers. Based on soil test results, tests were limed as needed to maintain a pH of 6.0 to 6.5. All tests were irrigated when necessary to avoid drought stress.

All tests were rated throughout the growing season for visual turf quality (i.e., overall appearance, turf color, uniformity, density, mowing quality, reduced rate of vertical growth, leaf texture, and damage due to insects and diseases). Other characteristics such as establishment, spring green-up, color, shoot density, leaf texture, and disease were rated when significant differences were evident. All ratings were based on a 1 to 9 scale, where 9 represents the best turf characteristic. Plots were evaluated by a number of turfgrass specialists to reduce the impact of personal bias for particular characteristics. All data were summarized and subjected to an analysis of variance. Means were separated using Fisher's protected least significant difference (LSD) mean separation test.

RESULTS AND DISCUSSION

Results for all tests are presented in Tables 1 through 6. Entries in Tables 1 to 4 are ranked according to their overall (multi-year) quality average. Tests in Tables 5 and 6 are ranked by resistance to gray leaf spot. A high quality average is generally indicative of better disease resistance, a darker, bright green color, higher shoot density, greater uniformity, finer leaf texture, lower growth habit, improved mowing quality, and less damage due to insects. Tables 1 and 2 include entries of the 2004 National Perennial Ryegrass test sponsored by the National Turfgrass Evaluation Program (NTEP).

Establishment

An early October establishment rating in Table 6 indicates that most cultivars and selections were well established within two months of seeding. Seedling establishment and vigor can be affected by factors such as genetics, seed quality and storage, environmental conditions, after-ripening dormancy, and management procedures. Perennial ryegrass is quick

to establish, which helps to prevent soil erosion and suppress weeds.

Turf Quality

The overall turf quality of perennial ryegrass has been substantially improved during the last 40 years, and the turfgrass has become a very popular species. Newer varieties such as All*Star 3, Dasher 3, Soprano, and Uno as well as many promising experimentals are darker green, more uniform in appearance, denser with a lower growth habit, and exhibit cleaner mowing, better tolerance to disease and insects, and improved wear tolerance (Tables 1 to 6).

Wear Tolerance

Perennial ryegrasses exhibit good traffic tolerance and can rapidly recover from high traffic. This trait makes the turfgrass an increasingly popular choice among homeowners, sports turf managers, and golf course superintendents. The test in Table 4 was subjected to wear during the growing season using a traffic simulator and rated for wear damage and recovery.

Disease

Many of the newly developed perennial ryegrasses differ significantly in disease resistance and recovery. In New Jersey, excellent environmental conditions exist for the development of fungal diseases that attack perennial ryegrass as well as other turf species. These diseases include gray leaf spot (caused by *Pyricularia grisea*), red thread (caused by *Laetisaria fuciformis*), dollar spot (caused by *Sclerotinia homoeocarpa*), brown patch (caused by *Rhizoctonia solani*), and crown rust (caused by *Puccinia coronata*).

The development of improved resistance to gray leaf spot steadily continues at the New Jersey Agricultural Experiment Station. Gray leaf spot can be a devastating disease on newly established turf stands of perennial ryegrass. The disease is favored when several hours of leaf wetness and/or high humidity as well as temperatures above 68°F are maintained. Gray leaf spot begins as small, gray to brown leaf spots that progress into oblong, dark gray-brown or light brown lesions. Diseased leaves often appear off-color and wilted, and irregularly-shaped patches of turf develop in the stand. In August 2007, two pe-

ennial ryegrass tests were established at Adelphia, NJ (Tables 5 and 6) and maintained to encourage gray leaf spot. Compared to older varieties, many experimentals as well as the newer varieties released to the market were more resistant to this disease.

Crown rust is a common disease of perennial ryegrass that occurs most often in late summer and fall. In the 2006 and 2007 tests at Adelphia (Tables 4, 5, and 6), significant differences in tolerance to crown rust were evident among cultivars. Newer varieties and experimentals were more resistant and recovered faster from the disease.

Red thread gets its name from a pink-red, thread-like mycelium that occurs in the turf when the fungus is active. In the 2004 test at North Brunswick (Table 2), levels of red thread resistance varied among cultivars; varieties such as Apple GL and Zoom had improved resistance to this disease. Red thread can usually be reduced by increases in nitrogen fertility.

SUMMARY

Turf type perennial ryegrass is one of the most versatile grasses available. Its high traffic tolerance,

rapid establishment, and deep green color are raising the demand for perennial ryegrass in the turf grass seed industry. Although considerable improvements have been made to this species, an increase in genetically stable resistance to gray leaf spot, crown rust, dollar spot, pink patch, red thread, and brown patch is still needed. In addition, increased heat and drought tolerance, cold hardiness, and the ability to survive under ice sheets for extended periods are also necessary.

ACKNOWLEDGMENTS

New Jersey Agricultural Experiment Station Publication No. E-12180-03-08. This work was conducted as a part of NJAES Project No. 12180, supported by New Agricultural Experiment Station, State and Hatch Act funds, Rutgers Center for Turfgrass Science, other grants and gifts from the United States Golf Association. Additional support was received by the New Jersey Turfgrass Association, the New Jersey Turfgrass Foundation and the National Turfgrass Evaluation Program.

Table 1. Performance of perennial ryegrass cultivars and selections in a turf trial established in August 2004 at Adelphia, NJ. (Includes all entries of the 2004 National Perennial Ryegrass Test sponsored by NTEP.)

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Dollar Spot ³ Aug. 2007	Color ⁴ Sept. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
1	All*Star 3	6.8	7.1	6.7	6.7	5.0	8.0	7.0
2	GL4 Comp	6.8	7.3	6.5	6.4	5.0	6.0	6.3
3	Uno	6.6	7.0	6.5	6.3	4.7	5.3	6.7
4	Exacta II GLSR	6.6	7.1	6.5	6.1	5.0	8.0	6.3
5	Palmer V	6.4	6.3	6.5	6.4	5.7	7.0	5.7
6	Stellar GL	6.4	6.5	6.4	6.3	4.3	8.0	6.7
7	Derby Xtreme	6.4	6.5	6.8	5.8	5.0	6.0	6.3
8	Revenge GLX	6.3	6.6	6.5	5.8	5.7	7.0	7.0
9	Kokomo II	6.3	6.4	6.2	6.3	5.0	7.3	7.7
10	Fiesta 4	6.2	7.0	6.2	5.5	4.7	5.0	6.3
11	Zoom	6.2	6.3	6.5	5.8	4.3	6.3	5.3
12	Regal 5	6.2	6.5	6.0	6.1	4.7	7.3	7.7
13	Amazing GS	6.2	6.5	5.9	6.2	4.7	8.7	7.0
14	Dasher 3	6.2	6.3	6.6	5.5	4.7	5.7	6.3
15	Palmer IV	6.1	5.9	6.2	6.3	5.0	8.7	6.7
16	GL3 Comp	6.1	6.1	6.0	6.2	5.3	8.0	6.7
17	Panther GLS	6.1	6.6	5.5	6.2	5.3	8.0	6.3
18	Palmer GLS	6.1	6.2	6.0	6.1	5.3	7.7	6.3
19	Attribute	6.1	6.7	5.8	5.7	4.7	7.3	7.0
20	Palace	6.0	6.3	6.1	5.7	5.0	5.3	7.7
21	Fusion	6.0	6.0	6.1	6.0	4.0	8.3	7.7
22	Protégé GLR	6.0	5.9	6.2	5.9	5.0	6.0	6.7
23	Soprano	6.0	6.7	6.1	5.2	5.0	4.3	6.3
24	SR 4600	6.0	6.9	6.0	5.1	4.7	5.7	6.0
25	GL1 Comp	5.9	6.9	5.6	5.2	5.0	5.7	6.0

(Continued)

Table 1 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Dollar Spot ³ Aug. 2007	Color ⁴ Sept. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
26	Paragon GLR	5.9	6.4	5.6	5.7	4.7	7.3	6.7
27	Homerun	5.9	6.4	5.9	5.4	5.0	7.3	5.7
28	Notable	5.9	6.6	5.5	5.6	5.3	6.7	6.0
29	Keystone 2	5.8	6.0	5.5	5.9	5.0	8.3	5.0
30	MMW	5.7	6.4	5.4	5.5	5.0	4.7	6.7
31	Primary	5.7	5.8	5.9	5.4	5.0	7.7	5.7
32	Repell GLS	5.7	6.0	5.7	5.5	5.3	7.3	5.7
33	Line Drive GLS	5.7	6.0	5.6	5.5	5.0	8.7	5.3
34	Harrier	5.6	6.1	5.6	5.1	4.7	5.0	5.3
35	Defender	5.6	5.8	5.7	5.3	4.7	5.3	6.7
36	1G Squared	5.6	6.7	5.2	4.9	5.7	4.3	5.7
37	APR 1648	5.6	4.6	5.8	6.3	5.3	8.3	6.7
38	Transformer	5.5	5.9	5.7	5.0	4.7	7.0	5.0
39	Buena Vista	5.5	5.5	5.4	5.6	4.7	8.0	7.3
40	Silver Dollar	5.5	5.5	5.2	5.8	6.0	8.0	6.3
41	Phenom	5.4	6.0	5.4	4.9	6.3	7.0	5.7
42	Secretariat II GLSR	5.4	6.0	5.2	5.0	5.7	6.7	4.0
43	Edge II	5.4	5.1	5.4	5.5	4.7	7.0	6.7
44	Grand Slam II	5.3	5.5	5.1	5.4	6.0	7.7	6.0
45	LS 2300	5.3	5.6	5.0	5.2	5.3	8.7	6.0
46	PST-2AG4	5.2	5.7	5.0	5.1	4.3	6.7	6.0
47	Apple GL	5.2	5.8	4.8	5.0	4.3	5.7	6.0
48	Charismatic II GLSR	5.2	5.7	4.9	4.8	5.3	7.3	5.3
49	Overdrive	5.1	4.8	5.0	5.5	5.3	8.7	6.0
50	Dart	5.1	5.6	4.8	4.8	4.7	7.3	5.7

141

(Continued)

Table 1 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Dollar Spot ³ Aug. 2007	Color ⁴ Sept. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
51	Calypso III	5.1	5.0	5.0	5.2	4.3	6.0	6.3
52	Gray Fox	5.0	5.0	4.9	5.2	5.7	8.3	7.0
53	Cabo II	5.0	4.9	5.1	4.9	4.0	7.7	8.0
54	ASP6004	5.0	4.7	4.9	5.2	4.7	8.0	7.7
55	Prototype	4.9	4.9	4.9	5.0	4.0	5.7	5.7
56	Manhattan 5 GLR	4.9	5.3	4.8	4.6	5.7	6.3	4.7
57	Gray Star	4.9	4.8	4.5	5.3	4.3	8.3	6.0
58	VB77	4.8	4.7	4.9	5.0	5.3	6.7	6.3
59	ASP6006	4.8	4.8	4.8	4.6	4.3	6.3	8.0
60	Pleasure Supreme	4.8	4.9	4.8	4.6	4.7	6.0	5.7
61	SRX 4692	4.7	4.6	4.7	5.0	6.0	8.0	6.3
62	RAD-PR8	4.6	4.7	4.6	4.7	4.7	4.7	5.3
63	Pentium	4.6	4.5	4.7	4.7	5.0	8.3	4.3
64	Nexus XR	4.6	4.6	4.4	4.8	4.3	5.0	8.0
65	04-BEN	4.6	4.5	4.5	4.7	5.3	6.3	5.3
66	ES45	4.6	4.5	4.6	4.5	5.7	8.0	8.0
67	VB99	4.6	4.4	4.6	4.7	4.3	8.7	8.0
68	PST-217	4.6	4.0	4.8	4.9	5.7	7.7	6.3
69	PST-2BLK	4.6	4.5	4.5	4.7	5.3	7.0	6.7
70	Citation Fore	4.6	4.9	4.3	4.6	5.7	7.0	4.7
71	Mach I	4.5	4.7	4.8	4.1	4.3	3.3	6.0
72	Quicksilver	4.5	4.2	4.2	5.1	4.3	8.3	7.3
73	Pinnacle II	4.5	4.6	4.5	4.4	4.0	4.7	5.7
74	E-99	4.5	4.1	4.7	4.6	5.3	7.3	5.0
75	GPR	4.5	4.4	4.5	4.6	4.3	6.7	7.3

(Continued)

Table 1 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Dollar Spot ³ Aug. 2007	Color ⁴ Sept. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
76	PST-2LAN	4.5	4.6	4.1	4.7	7.0	7.0	5.0
77	Cutter II	4.5	4.0	4.5	4.9	5.0	5.0	7.0
78	PM 102	4.5	4.1	4.6	4.7	4.7	7.3	7.7
79	DP 17-9499	4.4	4.1	4.5	4.7	5.3	7.7	6.3
80	Top Gun II	4.4	4.1	4.4	4.7	4.7	7.3	6.3
81	Delaware XL	4.4	4.3	4.4	4.6	5.0	7.0	7.0
82	La Quinta	4.4	4.0	4.4	4.7	4.3	8.3	7.7
83	Firebolt	4.4	4.4	4.4	4.3	4.0	5.3	7.3
84	TR47	4.3	4.0	4.2	4.7	4.7	8.0	8.3
85	Nexus XD	4.3	4.0	4.1	4.7	5.0	7.3	8.7
86	D04-LP05	4.2	3.7	4.2	4.9	4.3	6.7	6.7
87	Pizzazz	4.2	3.9	4.3	4.5	4.3	6.3	5.3
88	SRX 4682	4.2	4.7	4.0	3.9	5.7	6.3	4.0
89	Headstart 2	4.2	3.7	4.1	4.9	4.7	6.7	7.0
90	Presidio	4.2	4.1	4.3	4.1	4.0	6.0	7.0
91	Halo	4.2	4.0	4.2	4.4	4.3	7.0	8.3
92	Monterey 3	4.2	3.9	4.2	4.3	3.7	6.7	6.0
93	BAR Lp 4420	4.2	4.1	4.2	4.3	3.7	5.0	6.3
94	Wayfarer	4.1	4.0	4.1	4.4	5.0	7.7	7.7
95	Accent II	4.1	4.1	4.3	4.0	4.3	6.0	5.3
96	04-BRE	4.1	4.5	4.0	3.9	4.7	5.0	6.3
97	BAR Lp 4920	4.1	4.0	4.4	3.9	5.7	5.7	5.7
98	Wind Dance 2	4.1	3.5	4.3	4.6	4.3	7.0	7.0
99	PS-2	4.0	3.3	4.5	4.2	4.0	6.3	6.0
100	Pianist	4.0	3.9	3.9	4.2	4.3	5.0	5.7

(Continued)

Table 1 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Dollar Spot ³ Aug. 2007	Color ⁴ Sept. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
101	BAR Lp 4317	4.0	3.9	4.1	4.0	5.7	5.0	5.0
102	ASP6003	4.0	3.7	4.2	4.0	4.3	7.0	7.7
103	ASP6002	3.9	3.8	4.0	4.0	4.0	6.7	8.0
104	Sunshine 2	3.9	3.7	3.9	4.2	3.7	4.3	7.0
105	Goalkeeper II	3.9	3.5	3.9	4.3	4.0	7.3	5.3
106	Brightstar SLT	3.9	3.9	4.0	3.8	4.7	6.3	4.3
107	Caddieshack II	3.8	3.2	3.9	4.4	3.3	5.3	5.0
108	Galatti	3.8	4.0	3.5	4.0	4.3	7.0	5.7
109	Inspire	3.8	3.4	3.9	4.1	4.0	5.7	4.7
110	Pick 02-R	3.8	3.7	3.6	3.9	4.3	6.0	7.3
111	ASP6005	3.7	3.9	3.7	3.6	4.0	3.7	6.7
112	ASP6001	3.7	3.3	3.8	4.0	4.7	6.7	7.7
113	Premier II	3.5	3.7	3.5	3.3	6.3	4.0	4.3
114	Barlennium	3.4	3.1	3.3	3.8	6.3	7.0	4.7
115	Palmer III	3.4	3.4	3.4	3.3	6.0	4.3	4.3
116	DP 17-9788	3.3	3.4	3.2	3.4	5.7	5.0	3.7
117	Panther	3.1	3.0	3.3	2.9	6.0	3.0	3.3
118	Affinity	2.9	3.2	3.0	2.6	7.7	4.3	2.0
119	Premier	2.7	2.9	2.7	2.4	8.0	6.0	1.7
120	LPR 02203	2.5	2.5	2.8	2.3	6.7	4.0	2.0
121	Pinnacle	2.3	2.1	2.4	2.4	8.3	5.7	2.7
122	Manhattan II	2.0	1.8	2.0	2.3	4.7	6.7	3.7
123	Linn	1.0	1.0	1.0	1.0	9.0	2.3	1.0

(Continued)

Table 1 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Dollar Spot ³ Aug. 2007	Color ⁴ Sept. 2007
	2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.			
LSD at 5% =	0.6	0.7	0.7	1.0	1.2	2.7	1.2

¹9 = best turf quality

²9 = earliest spring green-up

³9 = least disease

⁴9 = darkest green color

Table 2. Performance of perennial ryegrass cultivars and selections in a turf trial established in August 2004 at North Brunswick, NJ. (Includes all entries of the 2004 National Perennial Ryegrass Test sponsored by NTEP.)

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Red Thread ³ April 2007	Red Thread June 2007	Red Thread 2007 Avg.	Color ⁴ Oct. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.					
1	All*Star 3	7.1	7.4	7.2	6.7	7.0	6.0	6.0	6.0	8.0
2	Regal 5	6.9	7.1	6.6	7.1	6.0	6.7	5.3	6.0	7.3
3	Amazing GS	6.9	6.8	7.0	6.9	6.7	6.0	5.0	5.5	7.0
4	Uno	6.9	7.7	6.9	6.1	5.3	6.0	6.0	6.0	6.7
5	Attribute	6.7	6.9	6.6	6.6	6.0	5.3	4.3	4.8	6.3
6	Pick RB-1	6.7	7.2	6.6	6.2	7.0	6.3	6.0	6.2	7.7
7	Zoom	6.7	6.4	6.6	7.0	7.0	7.3	7.0	7.2	6.7
8	Derby Xtreme	6.6	6.8	6.6	6.4	6.0	6.0	5.3	5.7	7.3
9	Fiesta 4	6.6	7.0	6.8	5.9	6.3	6.7	6.7	6.7	6.7
10	Homerun	6.5	6.6	6.5	6.5	6.3	6.0	6.7	6.3	6.0
11	SR 4600	6.5	7.4	6.2	6.1	8.0	7.0	6.7	6.8	6.3
12	Palace	6.5	6.6	6.2	6.8	6.0	7.3	6.7	7.0	7.3
13	Exacta II GLSR	6.5	6.8	6.0	6.7	7.0	6.3	6.0	6.2	8.0
14	Palmer V	6.5	7.1	6.5	5.8	5.7	6.7	5.0	5.8	6.0
15	Revenge GLX	6.4	6.7	5.8	6.6	7.0	6.0	5.0	5.5	6.0
16	Primary	6.4	6.7	6.4	6.0	6.0	7.7	6.3	7.0	6.7
17	Panther GLS	6.3	6.7	6.7	5.6	6.7	6.7	4.7	5.7	5.0
18	Kokomo II	6.3	6.7	6.3	6.0	6.3	5.3	5.7	5.5	8.0
19	Keystone 2	6.3	6.2	6.2	6.5	5.7	7.0	5.3	6.2	5.7
20	Silver Dollar	6.3	6.1	6.8	6.0	7.0	6.0	5.7	5.8	6.0
21	Soprano	6.3	7.2	5.8	5.7	6.7	6.3	6.3	6.3	6.3
22	Palmer GLS	6.2	6.6	6.0	6.1	7.0	7.0	6.7	6.8	6.7
23	1G Squared	6.2	6.7	5.8	6.1	7.0	6.3	6.0	6.2	6.3
24	Notable	6.2	6.6	6.2	5.9	6.3	6.0	5.7	5.8	6.0
25	Apple GL	6.2	6.8	5.6	6.3	6.7	7.3	7.3	7.3	7.7

(Continued)

Table 2 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Red Thread ³ April 2007	Red Thread June 2007	Red Thread 2007 Avg.	Color ⁴ Oct. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.					
26	Transformer	6.2	6.9	6.2	5.7	5.7	5.3	5.7	5.5	5.0
27	MMW	6.2	7.1	6.3	5.3	6.0	4.3	4.0	4.2	7.3
28	Grand Slam II	6.2	6.1	6.5	6.0	6.0	6.7	6.3	6.5	5.3
29	SRX 4692	6.2	6.4	6.2	5.9	6.7	7.0	6.0	6.5	5.3
30	Harrier	6.2	7.1	5.9	5.5	6.0	7.0	7.0	7.0	5.7
31	Palmer IV	6.2	6.6	5.9	6.0	6.0	5.7	5.7	5.7	8.0
32	Protégé GLR	6.1	6.4	6.1	5.9	5.0	4.3	6.3	5.3	8.7
33	Dart	6.1	6.7	5.9	5.8	7.0	6.3	5.0	5.7	5.3
34	Charismatic II GLSR	6.1	6.6	5.9	5.8	6.3	6.0	5.7	5.8	5.7
35	PST-2AG4	6.1	5.9	6.5	5.9	6.7	7.3	5.7	6.5	6.7
36	Defender	6.1	6.7	5.8	5.7	6.3	7.7	7.0	7.3	6.3
37	Secretariat II GLSR	6.0	6.6	5.8	5.7	6.7	6.3	6.3	6.3	4.3
38	Paragon GLR	6.0	6.9	5.7	5.6	7.0	6.7	6.0	6.3	6.7
39	LS 2300	6.0	6.5	5.7	5.8	6.3	7.0	6.0	6.5	5.0
40	Line Drive GLS	6.0	6.6	5.9	5.5	5.3	6.0	4.0	5.0	4.7
41	DCM	5.9	5.8	6.0	5.8	5.7	7.3	8.3	7.8	6.0
42	Fusion	5.8	6.0	5.8	5.7	6.3	4.7	4.0	4.3	7.3
43	Gray Fox	5.8	5.8	6.1	5.5	6.7	7.0	6.3	6.7	5.7
44	Phenom	5.7	6.6	5.3	5.1	6.3	6.7	5.3	6.0	4.3
45	Stellar GL	5.7	6.5	5.6	4.9	5.0	6.0	6.0	6.0	7.7
46	Manhattan 5 GLR	5.6	6.3	5.0	5.5	6.0	7.0	5.7	6.3	5.0
47	Cabo II	5.6	6.4	5.3	5.1	5.0	6.7	6.7	6.7	7.7
48	Buena Vista	5.5	5.9	5.1	5.6	5.3	6.0	7.3	6.7	5.7
49	ASP6004	5.5	4.6	5.8	6.1	6.3	6.7	6.3	6.5	7.0
50	Repell GLS	5.5	6.0	5.1	5.4	6.3	7.0	6.3	6.7	4.3

147

(Continued)

Table 2 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Red Thread ³ April 2007	Red Thread June 2007	Red Thread 2007 Avg.	Color ⁴ Oct. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.					
51	Calypso III	5.4	5.3	5.2	5.7	6.0	7.0	5.3	6.2	5.3
52	Pleasure Supreme	5.4	5.1	5.4	5.7	6.3	7.3	5.7	6.5	6.0
53	Delaware XL	5.3	4.5	5.8	5.6	4.3	5.7	5.0	5.3	5.7
54	Overdrive	5.3	4.9	5.5	5.6	7.0	6.7	7.0	6.8	4.7
55	04-BRE	5.3	5.3	5.0	5.5	5.3	7.0	7.3	7.2	5.3
56	Gray Star	5.3	4.9	5.4	5.6	5.0	6.0	5.3	5.7	5.3
57	Edge II	5.3	5.1	5.1	5.5	4.7	7.3	6.3	6.8	5.3
58	E-99	5.3	4.9	5.5	5.4	5.3	5.7	6.0	5.8	5.0
59	SRX 4682	5.3	5.8	4.9	5.1	5.3	5.7	5.0	5.3	3.3
60	ASP6006	5.2	4.7	5.1	5.8	5.7	6.7	7.0	6.8	6.7
61	ASP6002	5.2	4.8	5.3	5.6	5.0	5.3	7.3	6.3	5.3
62	GPR	5.2	4.5	5.4	5.6	4.0	5.3	5.3	5.3	6.3
63	ASP6005	5.1	5.1	5.2	5.1	5.7	6.7	6.3	6.5	6.0
64	PST-2LAN	5.1	5.0	5.1	5.4	5.3	6.3	7.0	6.7	4.7
65	ES45	5.1	5.0	5.4	5.0	5.0	4.3	3.7	4.0	6.7
66	PST-2BLK	5.1	4.6	5.4	5.3	6.3	6.3	6.0	6.2	4.3
67	APR 1648	5.1	3.5	5.5	6.3	6.3	6.7	5.3	6.0	7.0
68	04-BEN	5.0	5.3	4.5	5.3	6.0	7.7	7.3	7.5	3.7
69	Wind Dance 2	5.0	4.8	4.9	5.4	5.0	5.3	6.0	5.7	5.7
70	RAD-PR8	5.0	5.4	4.9	4.7	5.7	5.3	4.7	5.0	4.0
71	Pentium	4.9	4.0	5.5	5.2	6.0	6.0	4.3	5.2	3.3
72	Citation Fore	4.9	5.0	4.9	4.8	5.7	7.0	6.7	6.8	4.0
73	VB77	4.9	4.7	4.9	5.0	6.0	7.0	7.3	7.2	5.0
74	ASP6003	4.9	3.9	4.9	5.8	6.3	7.3	7.0	7.2	5.3
75	Presidio	4.9	4.4	5.0	5.1	5.7	4.7	5.3	5.0	6.0

(Continued)

Table 2 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Red Thread ³ April 2007	Red Thread June 2007	Red Thread 2007 Avg.	Color ⁴ Oct. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.					
76	Pinnacle II	4.8	4.4	5.1	5.0	7.3	5.7	6.0	5.8	5.3
77	PST-217	4.8	4.5	5.0	5.0	5.3	5.3	5.0	5.2	5.0
78	Nexus XD	4.8	4.7	5.2	4.6	5.3	5.7	6.0	5.8	6.0
79	Galatti	4.8	4.1	4.9	5.3	6.0	7.3	6.0	6.7	5.0
80	Pizzazz	4.7	4.3	5.2	4.7	6.0	7.7	6.3	7.0	5.7
81	TR47	4.7	4.5	5.0	4.6	5.0	6.0	5.3	5.7	6.7
82	L44	4.7	4.3	4.8	4.9	5.3	5.3	6.0	5.7	5.7
83	Nexus XR	4.6	4.0	4.8	5.1	5.0	6.3	6.7	6.5	5.7
84	DP 17-9499	4.6	4.0	4.9	4.7	6.0	7.0	7.0	7.0	5.0
85	Halo	4.5	4.0	4.7	4.9	4.7	4.7	5.7	5.2	5.3
86	Accent II	4.5	3.8	4.7	5.0	5.0	5.0	5.0	5.0	3.3
87	Quicksilver	4.5	3.7	4.8	5.1	3.7	5.7	5.3	5.5	6.3
88	ASP6001	4.5	3.8	4.8	4.9	5.3	5.0	5.0	5.0	5.3
89	Top Gun II	4.5	3.4	4.7	5.4	4.3	4.7	5.3	5.0	4.3
90	Cutter II	4.5	3.7	4.7	5.1	4.7	4.7	4.3	4.5	6.0
91	Mach I	4.5	3.8	4.7	5.0	6.0	5.7	4.3	5.0	5.0
92	VB99	4.5	4.4	4.6	4.4	4.7	6.3	6.3	6.3	5.7
93	Inspire	4.3	3.3	4.6	4.8	5.7	7.3	5.3	6.3	3.7
94	BAR Lp 4420	4.2	4.1	3.9	4.7	4.0	5.0	5.0	5.0	5.0
95	D04-LP05	4.2	3.4	4.2	5.0	4.7	6.7	6.0	6.3	4.7
96	Firebolt	4.2	3.8	3.7	5.0	5.3	6.7	6.3	6.5	5.7
97	PM 102	4.1	3.6	4.2	4.5	4.7	6.0	6.7	6.3	5.3
98	PS-2	4.1	3.2	4.5	4.6	3.7	6.0	6.7	6.3	3.7
99	Brightstar SLT	4.1	3.6	4.2	4.4	5.3	6.3	6.0	6.2	4.0
100	Pianist	4.1	3.3	4.3	4.6	5.0	6.7	6.7	6.7	4.7

(Continued)

Table 2 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----				Spring Green-up ² April 2007	Red Thread ³ April 2007	Red Thread June 2007	Red Thread 2007 Avg.	Color ⁴ Oct. 2007
		2005-2007 Avg.	2005 Avg.	2006 Avg.	2007 Avg.					
101	BAR Lp 4317	4.0	3.8	3.9	4.4	4.7	6.0	6.0	6.0	3.3
102	Monterey 3	4.0	3.3	4.6	4.2	4.0	4.0	5.3	4.7	3.0
103	Headstart 2	4.0	3.2	4.1	4.7	4.3	6.3	6.3	6.3	5.0
104	La Quinta	4.0	3.6	4.1	4.3	5.3	5.7	5.0	5.3	4.7
105	DP 17-9788	4.0	3.8	4.1	4.0	5.3	5.7	4.7	5.2	2.3
106	BAR Lp 4920	3.9	3.5	4.0	4.2	5.3	6.0	6.0	6.0	3.7
107	Palmer III	3.9	3.4	3.9	4.4	5.3	6.0	5.3	5.7	3.7
108	Barlennium	3.9	3.4	4.0	4.3	4.0	6.0	6.0	6.0	3.3
109	Caddieshack II	3.8	2.9	4.0	4.5	3.0	6.3	6.7	6.5	3.7
110	Pick 02-R	3.7	3.2	3.4	4.6	3.3	4.7	4.7	4.7	4.7
111	GoalKeeper II	3.6	3.1	3.6	4.2	3.3	5.7	6.0	5.8	3.0
112	Premier	3.6	3.4	3.8	3.5	6.0	8.3	6.3	7.3	2.0
113	Sunshine 2	3.6	3.2	3.3	4.1	2.7	6.0	6.0	6.0	4.7
114	Affinity	3.5	3.5	3.7	3.3	6.7	8.0	6.0	7.0	1.7
115	Premier II	3.5	3.0	3.6	3.9	6.3	7.0	5.7	6.3	3.7
116	Panther	3.3	2.4	3.6	3.8	6.0	8.0	6.0	7.0	2.0
117	Pinnacle	2.9	2.6	3.1	2.9	7.7	8.3	6.3	7.3	1.7
118	LPR 02203	2.5	2.0	2.7	2.9	6.0	6.0	4.3	5.2	1.3
119	Manhattan II	2.4	1.8	2.5	2.9	5.3	6.7	4.7	5.7	2.3
120	Linn	1.0	1.1	1.0	1.1	5.7	7.7	4.7	6.2	1.0
	LSD at 5% =	0.7	0.7	0.9	1.0	1.4	2.2	2.6	2.2	1.7

¹9 = best turf quality²9 = earliest spring green-up³9 = least disease⁴9 = darkest green color

Table 3. Performance of perennial ryegrass cultivars and selections in a turf trial established in August 2005 at Adelphia, NJ.

	Cultivar or Selection	-----Turf Quality ¹ -----		
		2006-2007 Avg.	2006 Avg.	2007 Avg.
1	IS-PR 314	6.6	6.7	6.5
2	APR 1866	6.5	6.2	6.8
3	IS-PR 315	6.5	6.3	6.6
4	APR 1925	6.4	6.1	6.7
5	PSG Q-05	6.4	6.4	6.4
6	APR 1852	6.3	6.0	6.6
7	2L4 Comp	6.3	6.2	6.3
8	Zoom	6.2	6.2	6.2
9	PSG G-05	6.2	6.2	6.2
10	APR 1803	6.1	6.3	6.0
11	2B5 Comp	6.1	6.2	5.9
12	Soprano	6.1	6.2	5.9
13	APR 1854	6.1	6.1	6.0
14	APR 1856	6.1	6.2	5.9
15	APR 1926	6.0	5.9	6.2
16	PSG E-05	6.0	6.1	5.9
17	2B4 Comp	6.0	5.8	6.1
18	APR 1916	5.9	5.9	6.0
19	2B1 Comp	5.9	5.6	6.1
20	PSG 78-SP-Bulk 05	5.9	5.7	6.0
21	2B3 Comp	5.8	5.9	5.8
22	APR 1853	5.8	5.7	5.9
23	2B2 Comp	5.8	5.7	5.8
24	MRF PR-025	5.8	5.7	5.8
25	PSG F-05	5.7	5.7	5.8
26	Palmer GLS	5.7	5.9	5.5
27	APR 1906	5.7	5.8	5.6
28	Homerun	5.7	5.8	5.5
29	APR 1857	5.7	5.6	5.7
30	APR 1882	5.7	5.9	5.4
31	APR 1884	5.7	5.6	5.7
32	PSG BB-05	5.7	6.2	5.1
33	2L1 Comp	5.6	5.8	5.5
34	Phenom	5.6	5.7	5.5
35	PSG U-05	5.6	5.7	5.5

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----		
		2006-2007 Avg.	2006 Avg.	2007 Avg.
36	APR 1912	5.6	5.7	5.5
37	APR 1855	5.6	5.5	5.6
38	SR 4600	5.6	5.9	5.2
39	PST-Syn-2AGP	5.6	5.8	5.3
40	PST-Syn-2A03	5.6	5.4	5.7
41	APR 1887	5.5	6.0	5.0
42	2L3 Comp	5.5	5.4	5.5
43	APR 1885	5.4	5.7	5.1
44	Harrier	5.4	5.5	5.3
45	Applaud II	5.4	5.3	5.6
46	PSG Z-05	5.4	5.6	5.3
47	PST-2MGG-05	5.4	5.0	5.8
48	APR 1893	5.4	5.3	5.5
49	PSG 81-Bulk 05	5.4	5.8	5.0
50	Paragon GLR	5.4	5.4	5.4
51	2L2 Comp	5.3	5.7	5.0
52	APR 1880	5.3	5.6	5.0
53	APR 1851	5.3	5.4	5.1
54	APR 1889	5.3	5.3	5.2
55	APR 1895	5.2	5.3	5.2
56	Apple GL	5.2	5.3	5.1
57	Manhattan 5 GLR	5.2	5.1	5.4
58	APR 1874	5.2	5.3	5.1
59	APR 1873	5.2	4.9	5.4
60	APR 1888	5.2	5.3	5.0
61	APR 1670	5.1	5.1	5.2
62	APR 1883	5.1	5.2	4.9
63	APR 1879	5.1	5.3	4.8
64	1G Squared	5.1	5.1	5.0
65	APR 1878	5.0	5.0	5.1
66	APR 1902	5.0	5.1	4.9
67	05-J PR	5.0	4.9	5.1
68	APR 1877	5.0	4.7	5.3
69	PSG M-05	5.0	4.7	5.2
70	SRX 4692	4.9	5.2	4.7

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----		
		2006-2007 Avg.	2006 Avg.	2007 Avg.
71	SR 4550	4.9	4.8	5.0
72	APR 1907	4.9	5.2	4.6
73	PST-2GSB	4.9	5.0	4.8
74	IG2	4.9	4.7	5.0
75	Dart	4.9	5.0	4.7
76	PSG 80-SP-Bulk 05	4.9	4.6	5.1
77	IS-PR 316	4.8	4.8	4.8
78	PST-Syn-2MGS	4.8	5.0	4.7
79	PST-2AGH	4.8	4.7	4.9
80	Silver Dollar	4.8	4.8	4.8
81	PST-Syn-2COL	4.8	4.6	5.0
82	PST-2AG\$	4.8	4.7	4.8
83	Grand Slam 2	4.8	4.7	4.8
84	APR 1872	4.7	4.9	4.6
85	PST-2MNG	4.7	4.9	4.5
86	Integra II	4.7	4.8	4.6
87	PSG 92-Bulk 05	4.7	5.1	4.3
88	Gray Star	4.7	4.6	4.7
89	APR 1875	4.7	4.9	4.4
90	PST-2LGS	4.7	4.7	4.6
91	MRF PR-007	4.6	4.3	4.9
92	MRF PR-004	4.6	4.4	4.8
93	APR 1923	4.6	4.6	4.6
94	05-F PR	4.6	4.6	4.6
95	Citation Fore	4.6	4.5	4.7
96	PST-2TQL	4.6	4.4	4.7
97	MRF PR-012	4.6	4.2	4.9
98	APR 1911	4.6	4.5	4.6
99	Amazing	4.5	4.4	4.7
100	PST-21N4	4.5	4.2	4.8
101	PSG V-05	4.5	4.3	4.7
102	PSG X-05	4.5	4.8	4.2
103	PSG A-05	4.5	4.4	4.6
104	PST-2F15	4.5	4.4	4.6
105	APR 1900	4.5	5.0	4.0

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----		
		2006-2007 Avg.	2006 Avg.	2007 Avg.
106	MHT MSP 3729	4.5	4.3	4.7
107	MRF PR-010	4.5	4.2	4.7
108	APR 1899	4.5	4.8	4.1
109	APR 1918	4.5	4.4	4.5
110	PSG L-05	4.4	4.4	4.5
111	PST-Syn-2GC	4.4	4.6	4.3
112	Top Hat 2	4.4	4.1	4.7
113	MRF PR-016	4.4	4.1	4.7
114	SR 4220	4.4	4.3	4.5
115	PST-Syn-2RCC	4.4	4.6	4.2
116	APR 1890	4.4	4.8	4.0
117	05-E PR	4.4	4.1	4.7
118	PST-2LAN	4.4	4.3	4.5
119	APR 1876	4.4	4.5	4.2
120	MRF PR-013	4.4	4.0	4.7
121	PST-Syn-2SOV	4.4	4.2	4.5
122	MRF PR-019	4.3	4.2	4.4
123	MRF PR-015	4.3	4.0	4.6
124	Wind Dance 2	4.3	4.3	4.3
125	PST-2PC	4.3	4.3	4.3
126	MRF PR-024	4.3	4.0	4.6
127	APR 1671	4.3	4.0	4.5
128	MRF PR-003	4.3	4.0	4.5
129	SR 4420	4.3	4.2	4.3
130	PSG J-05	4.3	4.2	4.3
131	PST-2RHO	4.2	4.1	4.3
132	APR 1924	4.2	3.3	5.1
133	Chaparral II	4.2	4.2	4.2
134	PSG H-05	4.2	3.8	4.6
135	MRF PR-017	4.2	4.0	4.4
136	Peregrine	4.2	4.1	4.3
137	PSG 85-SP-Bulk 05	4.2	4.1	4.2
138	MRF PR-002	4.2	4.1	4.2
139	MRF PR-008	4.2	4.1	4.2
140	MRF PR-020	4.2	3.9	4.4

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----		
		2006-2007 Avg.	2006 Avg.	2007 Avg.
141	Gator 3	4.2	4.0	4.3
142	SRX 4682	4.1	4.2	4.0
143	PSG 84-SP-Bulk 05	4.1	3.7	4.6
144	PST-Syn-2BMR	4.1	4.3	3.9
145	PSG I-05	4.1	4.0	4.2
146	PSG 45-SP-Bulk 05	4.1	4.6	3.6
147	PST-2Q4	4.1	4.2	4.0
148	IS-PR 313	4.1	4.0	4.2
149	APR 1922	4.1	4.1	4.0
150	PSG Y-05	4.1	4.2	3.9
151	Quicksilver	4.1	3.9	4.2
152	Manhattan 4	4.0	3.9	4.2
153	PST-2101	4.0	3.9	4.1
154	MRF PR-005	4.0	4.0	3.9
155	MRF PR-023	4.0	4.0	4.0
156	MRF PR-027	4.0	3.8	4.2
157	PSG 83-SP-Bulk 05	4.0	3.9	4.1
158	PSG D-05	4.0	3.7	4.2
159	Grand Slam	4.0	4.2	3.8
160	PST-Syn-2CAX	4.0	4.0	4.0
161	MRF PR-021	4.0	3.9	4.1
162	LS 2100	4.0	3.6	4.3
163	PSG O-05	3.9	3.9	3.9
164	MRF PR-011	3.9	3.7	4.1
165	LS 2200	3.9	3.7	4.1
166	Delaware XL	3.9	3.9	3.9
167	PSG 45-Bulk 05	3.9	4.1	3.7
168	PST-2-Blue	3.9	3.8	4.0
169	MRF PR-014	3.9	3.6	4.1
170	MRF PR-018	3.9	3.6	4.1
171	PSG 90-Bulk 05	3.9	3.8	4.0
172	PST-Syn-2TQM	3.9	3.8	3.9
173	Headstart 2	3.9	3.7	4.0
174	MRF PR-009	3.8	3.6	4.1
175	PSG 86-SP-Bulk 05	3.8	3.8	3.9

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----		
		2006-2007 Avg.	2006 Avg.	2007 Avg.
176	Shining Star II	3.8	4.0	3.6
177	MRF PR-006	3.8	3.7	3.9
178	PSG K-05	3.8	3.5	4.1
179	Mach 1	3.8	3.5	4.0
180	PST-2C4	3.8	4.0	3.5
181	PST-Syn-2SNS	3.8	3.6	4.0
182	MRF PR-022	3.8	3.7	3.8
183	Affirmed	3.8	3.6	3.9
184	PST-Syn-2RZ	3.8	3.7	3.8
185	PSG P-05	3.7	3.7	3.7
186	PSG 86-Bulk 05	3.7	3.8	3.6
187	Confetti	3.7	3.4	4.0
188	Brightstar SLT	3.7	3.5	3.8
189	RAD-PR17	3.7	3.8	3.5
190	Charger II	3.7	3.7	3.6
191	PSG N-05	3.7	3.5	3.8
192	Hawkeye	3.6	3.6	3.6
193	PSG 73-Bulk 05	3.6	3.3	3.9
194	Show Time	3.6	3.3	3.9
195	MRF PR-001	3.6	3.5	3.7
196	PSG B-05	3.5	3.4	3.6
197	PST-2RT	3.5	3.6	3.3
198	MRF PR-026	3.4	2.9	4.0
199	SR 4500	3.4	3.3	3.6
200	Charismatic	3.4	3.2	3.6
201	05 I PR	3.4	3.1	3.7
202	Exacta	3.4	3.0	3.7
203	SR 4350	3.4	3.3	3.4
204	PSG 93 Bulk 05	3.3	3.2	3.3
205	PSG C-05	3.3	3.2	3.3
206	PST-2M4	3.3	3.2	3.3
207	PSG 82-Bulk 05	3.2	3.4	3.0
208	PSG AA-05	3.2	3.2	3.1
209	Churchill	3.2	3.1	3.3
210	PSG W-05	3.1	3.2	3.1

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----		
		2006-2007 Avg.	2006 Avg.	2007 Avg.
211	PST-2RIV	3.1	2.9	3.3
212	PSG T-05	3.1	3.0	3.1
213	Monterey II	3.0	2.7	3.2
214	Spreader III	2.8	2.5	3.1
215	PSG S-05	2.7	3.0	2.4
216	PSG 77-Bulk 05	2.7	2.4	3.0
217	MSP 3639	2.7	2.9	2.5
218	PSG R-05	2.6	2.9	2.4
	LSD at 5% =	0.5	0.6	0.7

¹9 = best turf quality

Table 4. Performance of perennial ryegrass cultivars and selections in a turf trial established in August 2006 at Adelphia, NJ.

	Cultivar or Selection	Turf Quality ¹	Wear Quality ²	Wear Recovery ³	Crown Rust ⁴
		2007 Avg.	2007 Avg.	Nov. 2007	Oct. 2006
1	Soprano	6.3	5.5	5.3	6.7
2	Palmer V	6.3	5.7	6.0	5.3
3	APR 1980	6.3	5.8	5.7	6.0
4	Homerun	6.3	5.8	5.0	5.3
5	IS-PR 314	6.2	5.7	5.7	7.3
6	IS-PR 315	6.2	5.5	6.3	6.7
7	APR 1979	6.1	5.2	5.3	6.3
8	IS-PR 342	6.1	4.7	4.7	6.0
9	Derby Xtreme	6.1	5.7	5.3	6.7
10	HP3 comp	6.1	5.8	6.3	7.0
11	PAR comp	6.0	6.7	5.7	5.0
12	Harrier	6.0	4.5	5.3	6.3
13	HP1 comp	6.0	5.8	5.0	6.7
14	SR 4600	5.9	5.5	6.0	6.3
15	APR 2036	5.9	4.7	5.0	6.7
16	IS-PR 340	5.9	5.7	5.3	6.7
17	HU1 comp	5.9	5.2	5.3	6.7
18	Zoom	5.8	5.0	4.7	6.3
19	AMS comp	5.8	4.7	4.0	5.3
20	Paragon GLR	5.8	5.0	5.0	6.0
21	Apple GL	5.8	5.0	5.0	7.7
22	APR 2037	5.8	5.0	5.3	6.3
23	All*Star 3	5.8	5.0	5.7	6.7
24	HP2 comp	5.7	4.5	5.0	7.0
25	RAD-PR39	5.6	4.7	5.3	6.0
26	Repell GLS	5.6	4.3	5.0	6.3
27	IS-PR 316	5.6	5.5	6.0	6.3
28	APR 2031	5.5	4.3	4.3	6.7
29	Stellar GL	5.5	5.0	4.7	5.7
30	Applaud	5.4	5.2	5.0	5.3
31	IG2	5.4	5.3	5.0	5.3
32	Applaud II	5.4	4.7	5.0	6.0
33	APR 2025	5.4	5.8	5.7	5.7
34	RAD-PR44	5.4	4.8	5.3	5.7
35	Panther GLS	5.4	4.3	5.3	4.7

(Continued)

Table 4 (continued).

	Cultivar or Selection	Turf Quality ¹	Wear Quality ²	Wear Recovery ³	Crown Rust ⁴
		2007 Avg.	2007 Avg.	Nov. 2007	Oct. 2006
36	IG Squared	5.4	4.7	4.3	6.0
37	Gray Fox	5.3	4.2	4.7	5.7
38	APR 2034	5.3	4.7	4.7	6.0
39	APR 2035	5.3	5.2	5.0	6.0
40	MSH comp	5.3	6.2	6.0	5.7
41	Phenom	5.3	4.2	4.0	5.7
42	PST-2AG4	5.3	4.7	5.0	5.7
43	Palmer IV	5.2	3.5	5.0	6.0
44	PST-syn-2AM-A	5.2	5.7	5.3	6.3
45	Prelude GLS	5.2	4.8	5.0	5.0
46	AUR comp	5.2	5.3	5.3	5.3
47	PST-syn-2GLG	5.1	5.0	5.0	5.3
48	APR 2024	5.1	6.0	5.7	6.7
49	Silver Dollar	5.0	4.3	4.0	4.7
50	Gray Goose	5.0	4.8	4.7	4.3
51	APR 2026	5.0	4.3	4.3	6.0
52	APR 2032	5.0	3.8	4.0	6.3
53	APR 2033	5.0	4.5	5.0	6.0
54	APR 2038	4.9	4.7	5.0	5.7
55	RAD-PR36	4.9	4.0	4.0	5.3
56	Gray Star	4.9	4.8	4.3	5.7
57	PST-syn-2CNV	4.9	5.0	4.3	5.3
58	PST-2GSB	4.9	4.2	4.3	4.3
59	RAD-PR28	4.8	5.2	5.7	4.7
60	PST-2USA Bulk	4.8	5.5	4.7	5.0
61	PST-2SDG Bulk	4.7	4.0	4.0	4.7
62	PST-2AG\$	4.7	4.5	4.3	5.0
63	IS-PR 341	4.7	4.3	4.7	4.7
64	All*Star 2	4.7	4.7	5.0	4.0
65	PST-265M	4.7	4.5	4.7	4.3
66	Integra II	4.7	3.5	4.3	5.3
67	PST-2LAN	4.7	5.2	4.7	4.3
68	Dart	4.6	3.5	3.7	5.0
69	PST-2RZB Bulk	4.6	5.0	5.0	4.7
70	Line Drive	4.6	4.8	4.7	5.0

(Continued)

Table 4 (continued).

	Cultivar or Selection	Turf Quality ¹	Wear Quality ²	Wear Recovery ³	Crown Rust ⁴
		2007 Avg.	2007 Avg.	Nov. 2007	Oct. 2006
71	Calypso III	4.6	4.7	4.7	4.0
72	RAD-PR38	4.6	4.0	4.3	4.7
73	PST-syn-2H20	4.6	5.0	5.0	3.7
74	Wizard II	4.6	4.2	4.7	3.7
75	Delaware XL	4.6	3.8	4.0	4.0
76	Hawkeye 2	4.6	3.2	4.0	3.7
77	RAD-PR34	4.6	4.3	4.3	4.3
78	Priority	4.5	3.5	4.0	3.7
79	SR 4220	4.5	4.5	4.3	2.7
80	SR 4550	4.5	3.8	4.0	4.3
81	04-BRE	4.5	3.5	4.0	3.7
82	Peregrine	4.4	4.3	4.3	3.7
83	Pennant III	4.3	3.7	4.0	3.7
84	SR 4420	4.3	3.7	4.3	3.3
85	Gator 3	4.3	4.3	4.0	3.3
86	Quicksilver	4.3	3.5	4.3	3.7
87	PST-syn-2R04	4.3	4.5	4.7	4.7
88	Mach 1	4.3	5.0	4.7	4.0
89	Jet	4.3	3.8	4.0	3.3
90	Integra	4.3	4.3	4.3	4.0
91	RAD-PR33	4.2	4.7	5.0	3.7
92	IS-MBH2	4.1	4.5	4.7	3.7
93	IS-PR 225	4.0	5.0	4.7	3.3
94	Prelude IV	4.0	5.0	4.7	3.0
95	RAD-PR29	4.0	3.3	3.7	3.7
96	SR 4682	4.0	3.7	4.0	4.3
97	IS-PR 313	4.0	4.0	5.0	3.7
98	04-BEN	3.9	3.7	4.0	4.3
99	Ringer	3.9	3.5	3.3	2.3
100	Manhattan 4	3.8	3.7	4.0	2.7
101	Citation Fore	3.8	3.8	4.0	4.0
102	Slugger	3.8	4.2	4.3	3.3
103	RAD-PR35	3.7	2.3	3.3	4.7
104	PST-2M*	3.6	2.0	3.7	4.3
105	PST-2101	3.6	4.3	4.3	3.0

(Continued)

Table 4 (continued).

	Cultivar or Selection	Turf Quality ¹	Wear Quality ²	Wear Recovery ³	Crown Rust ⁴
		2007 Avg.	2007 Avg.	Nov. 2007	Oct. 2006
106	Hawkeye	3.6	3.0	3.3	2.7
107	Confetti	3.5	4.0	4.0	2.7
108	Headstart 2	3.5	3.7	3.3	2.3
109	SR 4350	3.5	3.8	4.0	2.7
110	Frontier	3.4	3.2	3.7	4.3
111	Darkstar II	3.4	4.2	4.0	2.7
112	PST-2SNS	3.3	4.0	4.0	3.7
113	04-HEAT	3.3	2.5	3.3	3.0
114	SR 4500	3.3	3.7	3.7	2.3
115	STR 4TPCS	3.2	4.2	4.3	2.7
116	Sonata	3.1	3.7	4.0	3.0
117	STR 45AB4	3.1	3.0	3.3	3.0
118	SRX 4SLT	3.1	3.5	3.3	1.7
119	Calypso II	3.0	2.8	3.3	2.7
120	STR 4AAPR	2.9	2.7	3.3	2.0
121	Pinstripe	2.9	3.2	3.7	2.0
122	APR 1802	2.7	1.8	2.7	4.3
123	STR X863	2.6	2.5	3.0	2.7
	LSD at 5% =	0.7	1.2	1.1	1.3

¹9 = best turf quality²9 = best turf quality following wear³9 = best recovery from wear⁴9 = least disease

Table 5. Performance of perennial ryegrass cultivars and selections in a turf trial established in August 2007 at Adelphia, NJ.

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
1	RKS Comp	8.3	7.3	7.0
2	APR2117	8.0	7.0	7.0
3	OC2 Comp	8.0	7.7	8.0
4	ST1 Comp	8.0	7.3	6.7
5	Dasher III	7.7	7.3	7.3
6	PST-SYN-2MAG7	7.7	7.0	7.7
7	DF Comp	7.3	6.3	6.3
8	GL-31	7.3	7.0	7.0
9	GL-74	7.3	7.3	7.3
10	LP1 Comp	7.3	7.0	7.0
11	Manhattan 5 GLR	7.3	6.0	6.0
12	SR 4600	7.3	7.0	6.7
13	GM2 Comp	7.0	7.0	6.3
14	HP1	7.0	5.7	6.7
15	IS-PR 342	7.0	7.3	6.7
16	Palmer IV	7.0	7.0	6.7
17	Palmer V	7.0	6.7	6.3
18	SAK Comp	7.0	7.0	6.7
19	APR2072	6.7	5.3	5.3
20	APR2074	6.7	6.3	6.0
21	PST-2MAGS	6.7	7.0	6.0
22	PST-2TSE	6.7	5.0	5.0
23	All*Star 3	6.7	6.7	6.3
24	Defender	6.7	6.3	6.0
25	Derby Xtreme	6.7	7.0	6.0
26	Fiesta 4	6.7	7.0	7.0
27	Palmer GLS	6.7	6.0	5.0
28	IG Squared	6.7	6.7	6.3
29	IS-PR 341	6.7	6.7	6.0
30	Panther GLS	6.7	6.3	5.7
31	Soprano	6.7	6.7	6.7
32	APR2079	6.3	5.7	6.0
33	Uno	6.3	6.3	6.3
34	PST-2NKMS	6.3	5.7	5.7
35	74-07	6.3	5.7	5.0

(Continued)

Table 5 (continued).

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
36	Transformer	6.3	5.7	6.0
37	Buena Vista GLSR	6.3	6.7	5.0
38	Caddieshack II	6.3	5.7	5.0
39	GM1 Comp	6.3	6.0	6.0
40	GM3 Comp	6.3	6.7	6.7
41	GM4 Comp	6.3	6.7	6.3
42	Harrier	6.3	6.3	5.7
43	HP1	6.3	6.7	6.0
44	HU1	6.3	6.7	6.0
45	IS-PR 409	6.3	7.3	6.0
46	Prelude GLS	6.3	6.7	6.0
47	Repell GLS	6.3	5.7	5.0
48	Zoom	6.3	7.3	6.0
49	APR 2037	6.0	7.0	6.0
50	APR2083	6.0	5.3	4.7
51	APR2090	6.0	5.7	5.3
52	APR2101	6.0	6.3	5.7
53	PST-2USD	6.0	6.3	5.7
54	Amazing GS	6.0	6.0	5.3
55	Apple GL	6.0	5.7	6.3
56	Citation Fore	6.0	5.0	4.3
57	GL3 Bulk	6.0	5.7	6.0
58	IS-PR 340	6.0	6.7	5.3
59	Keystone 2	6.0	5.7	5.0
60	Monterey 3	6.0	5.3	4.7
61	Gray Goose	6.0	4.7	4.7
62	Gray Fox	6.0	5.0	4.7
63	PST-SYN-2NKE7	6.0	5.0	4.0
64	PST-SYN-2RES	6.0	5.7	5.0
65	RAD-PR34	6.0	5.3	5.0
66	Stellar GL	6.0	5.7	5.7
67	APR2067	5.7	6.0	5.0
68	APR2069	5.7	4.7	5.0
69	APR2081	5.7	4.7	4.3
70	APR2089	5.7	4.3	4.3

(Continued)

Table 5 (continued).

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
71	APR2099	5.7	6.3	5.3
72	06E Lp-A07	5.7	6.3	5.7
73	PST-2GSB	5.7	4.7	5.3
74	RAD-PR46	5.7	4.3	4.7
75	RAD-PR53	5.7	5.7	4.7
76	Silver Dollar	5.7	5.7	5.0
77	APR 1915	5.3	4.3	4.0
78	APR2076	5.3	3.0	3.3
79	APR2085	5.3	5.3	4.7
80	APR2086	5.3	3.7	4.0
81	APR2097	5.3	7.0	4.7
82	06 E Lp-B07	5.3	5.3	4.0
83	06 H Lp	5.3	6.0	5.0
84	PST-2NKM	5.3	4.7	5.3
85	61-07	5.3	4.3	4.0
86	73-07-6	5.3	4.7	4.0
87	Applaud II	5.3	5.3	5.0
88	Calypso III	5.3	5.7	5.0
89	Grand Slam 2	5.3	4.0	4.7
90	Homerun	5.3	5.7	5.3
91	Overdrive	5.3	5.0	3.7
92	PST 2101-07	5.3	5.3	5.0
93	PST 2COL-07	5.3	5.3	4.7
94	PST-21N4	5.3	6.0	4.0
95	RAD-PR23	5.3	5.0	4.3
96	RAD-PR36	5.3	4.0	4.7
97	RAD-PR54	5.3	4.7	5.0
98	Shining Star II	5.3	4.0	4.3
99	APR2070	5.0	4.7	4.3
100	APR2071	5.0	4.0	4.0
101	APR2075	5.0	4.3	4.3
102	APR2082	5.0	3.0	3.0
103	APR2084	5.0	6.0	5.3
104	APR2087	5.0	3.3	3.0
105	APR2093	5.0	3.3	2.7

(Continued)

Table 5 (continued).

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
106	APR2096	5.0	6.7	4.3
107	APR2100	5.0	5.3	3.7
108	06 J Lp	5.0	6.3	4.0
109	06-K Lp	5.0	5.7	5.0
110	73-07-1	5.0	6.0	3.7
111	Blazer 4	5.0	4.3	4.3
112	Edge II	5.0	4.7	4.7
113	IS-PR 313	5.0	6.3	4.3
114	Line Drive GLS	5.0	4.3	4.3
115	Peregrine	5.0	3.7	4.3
116	Phenom	5.0	5.0	5.0
117	Pleasure Supreme	5.0	4.7	5.0
118	PST-2BLK-04	5.0	5.3	4.7
119	PST-2COL	5.0	5.3	4.3
120	RAD-PR49	5.0	4.3	4.3
121	RAD-PR55	5.0	6.3	5.3
122	Revenge GLX	5.0	4.7	4.0
123	SR 4550	5.0	5.0	5.3
124	SR 4682	5.0	2.7	3.7
125	APR2068	4.7	4.7	3.7
126	APR2077	4.7	4.7	3.3
127	APR2094	4.7	5.0	4.0
128	APR2095	4.7	5.3	3.3
129	06-N Lp	4.7	4.7	4.0
130	Dart	4.7	3.7	3.7
131	Integra II	4.7	5.0	4.7
132	PR-27	4.7	3.7	3.3
133	Prelude IV	4.7	5.7	4.0
134	Radiant II	4.7	6.3	4.0
135	RAD-PR38	4.7	4.3	4.0
136	RAD-PR45	4.7	6.0	4.0
137	RAD-PR51	4.7	5.0	4.7
138	SR 4420	4.7	4.0	3.7
139	Sunshine 2	4.7	4.7	3.7
140	SRX 4STD	4.5	4.0	3.0

(Continued)

Table 5 (continued).

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
141	APR2080	4.3	4.3	3.3
142	06-I Lp	4.3	5.0	3.7
143	PST-2TQL	4.3	5.3	3.7
144	73-07-10	4.3	4.7	3.7
145	Caddieshack	4.3	2.3	2.3
146	Calypso II	4.3	3.0	3.3
147	Gator 3	4.3	4.3	3.0
148	Hawkeye 2	4.3	4.3	4.3
149	IS-MBH2	4.3	3.3	3.7
150	Mach 1	4.3	4.3	3.7
151	SR 4350	4.3	2.3	2.7
152	SR 4500	4.3	3.0	2.7
153	Top Gun II	4.3	4.3	3.3
154	Vail II	4.3	4.7	3.7
155	Wizard II	4.3	5.3	3.0
156	73-07-3	4.0	5.0	3.3
157	73-07-5	4.0	4.3	3.3
158	73-07-7	4.0	5.7	3.7
159	73-07-9	4.0	4.3	3.7
160	Accent	4.0	2.7	2.3
161	Accent II	4.0	3.0	3.0
162	Hawkeye	4.0	4.3	2.7
163	PST-2MAX-07	4.0	4.7	2.7
164	SR 4220	4.0	3.7	4.0
165	Extreme	3.7	2.3	3.0
166	Headstart 2	3.7	3.7	2.7
167	Pennant III	3.7	4.7	4.0
168	Priority	3.7	6.7	4.0
169	Goalkeeper II	3.0	2.7	2.7
170	SRX 45LUP	3.0	3.7	2.3
	LSD at 5% =	1.3	1.6	1.5

¹9 = least disease²9 = best turf quality

Table 6. Performance of perennial ryegrass cultivars and selections in a turf trial established in August 2007 at Adelphia, NJ. (Includes all entries evaluated in the Cooperative Turfgrass Breeders Test—CTBT.)

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Establishment Oct. 2007 (%)	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
1	Dasher 3	8.0	76.7	6.7	7.7
2	All*Star 3	7.7	83.3	7.7	8.3
3	GL-31	7.7	81.7	7.3	7.7
4	SR 4600	7.3	85.0	7.0	7.7
5	Protege GLR	7.3	75.0	6.3	7.0
6	PST-2MAGS	7.3	68.3	7.7	6.7
7	Manhattan 5 GLR	7.3	88.3	6.3	5.7
8	Soprano	7.0	80.0	6.3	7.0
9	04-10 Lp	7.0	66.7	6.7	7.0
10	IG Squared	7.0	75.0	6.3	6.7
11	IS-PR 341	7.0	70.0	7.0	6.7
12	APR 2035	7.0	75.0	6.7	6.3
13	Paragon GLR	7.0	83.3	6.7	6.3
14	HP1	7.0	81.7	7.0	5.7
15	APR 2033	7.0	75.0	6.3	5.3
16	IS-PR 340	6.7	78.3	7.3	6.7
17	IS-PR 342	6.7	76.7	7.3	6.3
18	APR 2032	6.7	81.7	5.7	6.0
19	Palmer V	6.7	83.3	6.0	6.0
20	PST-2MG7 Bulk	6.7	76.7	6.7	6.0
21	PST-2GSB	6.7	75.0	5.3	6.0
22	APR 2090	6.7	71.7	6.0	5.3
23	APR 2038	6.7	78.3	5.7	5.3
24	APR 1979	6.3	76.7	6.3	6.3
25	APR 1980	6.3	73.3	7.0	6.3
26	GL3	6.3	80.0	5.0	6.3
27	IS-PR 409	6.3	73.3	6.7	6.3
28	APR 2024	6.3	73.3	6.3	6.0
29	IS-PR 410	6.3	71.7	7.3	6.0
30	APR 2031	6.3	78.3	5.3	5.7
31	Applaud II	6.3	76.7	6.7	5.7
32	Zoom	6.3	76.7	5.7	5.7
33	PST-2AG4	6.3	66.7	5.3	5.7
34	HU1	6.3	80.0	6.3	5.3
35	PST-2TES	6.3	71.7	5.0	5.3

(Continued)

Table 6 (continued).

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Establishment Oct. 2007 (%)	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
36	IS-PR 381	6.3	73.3	6.3	5.0
37	APR 1978	6.3	78.3	4.7	4.3
38	APR 2036	6.0	70.0	7.3	6.3
39	IS-PR 411	6.0	66.7	6.7	6.0
40	IS-PR 377	6.0	71.7	5.7	6.0
41	APR 2026	6.0	70.0	5.7	5.7
42	APR 2034	6.0	80.0	6.0	5.7
43	APR 2025	6.0	83.3	5.3	5.0
44	IS-PR 344	6.0	61.7	6.7	5.0
45	PST-2NKMS	6.0	65.0	5.0	4.3
46	PST-2NJM	6.0	70.0	5.3	4.3
47	APR 1977	6.0	78.3	4.3	4.0
48	IS-PR 382	5.7	66.7	6.3	6.0
49	APR 2037	5.7	71.7	5.7	5.3
50	LineDrive GLS	5.7	76.7	4.3	5.3
51	APR 1666	5.7	78.3	6.3	5.0
52	06-C-Lp EDB	5.7	78.3	5.7	5.0
53	06-B Lp	5.7	70.0	6.0	5.0
54	Gray Fox	5.7	80.0	4.0	5.0
55	APR 2089	5.7	70.0	5.3	4.7
56	06-C-Lp ACF	5.7	75.0	6.3	4.7
57	PST-2USD	5.7	75.0	5.7	4.7
58	PST-2LAN	5.7	80.0	4.0	4.7
59	APR 2013	5.7	80.0	4.3	4.3
60	A01PR Bulk	5.7	83.3	5.0	4.3
61	PST-2R57S Bulk	5.7	71.7	4.7	4.3
62	PST-Syn-2R57	5.7	60.0	5.0	4.0
63	06-Z Lp	5.7	78.3	3.7	3.7
64	07-15 PR	5.7	68.3	5.0	3.0
65	06-N Lp	5.3	73.3	5.7	5.0
66	APR 2064	5.3	71.7	7.0	4.7
67	Calypso III	5.3	80.0	5.0	4.3
68	PST-Syn-2GR7	5.3	65.0	5.3	4.3
69	07-17 PR	5.3	60.0	5.3	4.3
70	Integra II	5.3	78.3	5.0	4.0

(Continued)

Table 6 (continued).

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Establishment Oct. 2007 (%)	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
71	Gray Goose	5.3	76.7	4.0	4.0
72	PST-2SNS	5.3	73.3	5.0	4.0
73	APR 2075	5.3	66.7	3.7	3.7
74	PST-2COL	5.3	63.3	4.7	3.7
75	Applaud	5.0	81.7	6.0	5.0
76	06-K Lp	5.0	70.0	6.0	4.7
77	06-H Lp	5.0	76.7	6.3	4.3
78	PM 102	5.0	81.7	6.0	4.0
79	05-SP-1	5.0	63.3	4.7	4.0
80	PST-2101-07	5.0	75.0	4.7	4.0
81	APR 1959	5.0	70.0	6.7	4.0
82	Silver Dollar	5.0	66.7	5.3	3.7
83	07-4 PR	5.0	75.0	5.3	3.3
84	IS-PR 313	4.7	75.0	5.3	5.0
85	PST-21NA	4.7	76.7	5.7	4.7
86	APR 1965	4.7	71.7	4.3	4.3
87	MD-07	4.7	75.0	6.0	4.3
88	PST-Syn-2US7	4.7	71.7	5.7	4.3
89	PST-2TQL	4.7	58.3	5.0	4.3
90	Jet	4.7	85.0	4.0	3.7
91	06-J Lp	4.7	61.7	5.7	3.7
92	PST-2R9J-05	4.7	76.7	4.7	3.7
93	Pick EJ	4.3	71.7	4.0	4.3
94	04-4 Lp	4.3	80.0	4.3	4.0
95	07-13 PR	4.3	60.0	5.7	4.0
96	07-12 PR	4.3	53.3	4.7	3.7
97	MBH2	4.3	78.3	3.0	3.3
98	Penguin 2	4.3	81.7	4.0	2.7
99	APR 2096	4.0	68.3	6.3	3.3
100	Cutter	4.0	78.3	3.3	2.0
101	PST-Syn-2O4D	4.0	55.0	4.3	2.0
102	IS-PR 378	3.7	71.7	5.3	3.7
103	Pizzazz	3.7	71.7	6.0	3.3
104	06-I Lp	3.7	50.0	5.3	3.3
105	Prelude IV	3.7	76.7	6.0	2.7

(Continued)

Table 6 (continued).

	Cultivar or Selection	Gray Leaf Spot ¹ Oct. 2007	Establishment Oct. 2007 (%)	Crown Rust ¹ Oct. 2007	Turf Quality ² Oct. 2007
106	Manhattan II	3.7	80.0	3.3	2.0
107	04-18 Lp	3.3	68.3	3.7	3.3
108	SR 45 AB	3.3	63.3	3.7	3.0
109	07-5 PR	3.3	65.0	4.3	3.0
110	07-16 PR	3.3	66.7	4.3	3.0
111	SRX 4TPCS	3.3	68.3	4.7	2.3
112	PST-2MAX-07	2.7	50.0	4.0	2.3
113	07-7 PR	2.7	63.3	6.7	2.3
	LSD at 5% =	1.4	14.3	1.6	1.5

¹9 = least disease²9 = best turf quality

Table 7. Yearly nitrogen (N) applied and mowing height (Ht) on perennial ryegrass tests established at Adelphia and North Brunswick, NJ.

	2004		2005		2006		2007	
	N ¹	Ht ²	N	Ht	N	Ht	N	Ht
Table 1 (2004 Adelphia).....	1.3	1.5	4.0	1.5	4.5	1.5	3.3	1.5
Table 2 (2004 North Brunswick)	0.5	1.5	3.0	1.5	3.0	1.5	2.7	1.5
Table 3 (2005 Adelphia).....			0.8	1.5	3.5	1.5	2.0	1.5
Table 4 (2006 Adelphia).....					1.0	1.5	2.7	1.5
Table 5 (2007 Adelphia).....							0.5	1.5
Table 6 (2007 Adelphia).....							1.5	1.5

¹ Annual N applied (lb/1000 ft²)

² Mowing height in inches



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.