

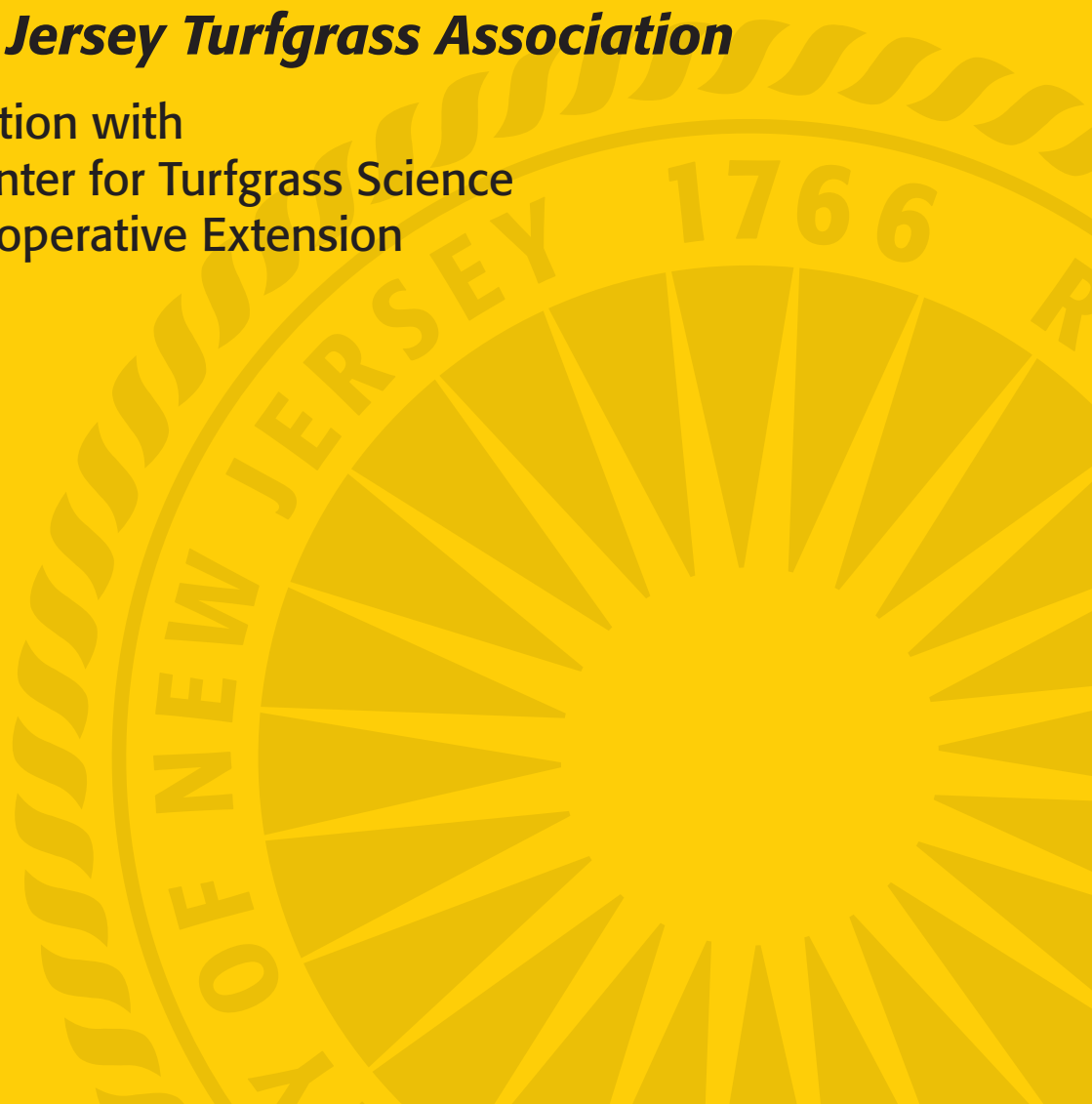
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The Rutgers Turfgrass Proceedings is published yearly by the Rutgers Center for Turfgrass Science, Rutgers Cooperative Extension, and the New Jersey Agricultural Experiment Station, School of Environmental and Biological Sciences, Rutgers, The State 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 2011 GREEN EXPO Turf and Landscape Conference. Publication of these lectures provides a readily available 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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Dr. Ann Brooks Gould, Editor
Dr. Bruce B. Clarke, Coordinator

PERFORMANCE OF TALL FESCUE CULTIVARS AND SELECTIONS IN NEW JERSEY TURF TRIALS

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Tall fescue [*Lolium arundinacea* (Schreb.) Darbysh.], a cool season grass native to Europe and some parts of Africa (Bucker et. al., 1979), was introduced into the United States in the 1800s as a forage grass (Hoveland, 2009). In the 1900s, tall fescue was used extensively after the release of the first commercial cultivar 'K-31' in 1940 and enhanced the production of forage in the United States. Tall fescue is known for its winter hardiness, adaptability to wider range of soil types, shade tolerance, and persistence.

Tall fescue has a deep root system that helps it to stay green longer in dry conditions and to better tolerate heat and drought stress. Tall fescue has a symbiotic relationship with endophytic fungi that live inside the stem and leaf tissues of the turfgrass. These endophytes produce alkaloids that enhance tolerance to insect feeding (Funk et. al., 1993). The incorporation of endophytic fungi into tall fescue has been a major breeding objective for many years.

The utility of tall fescue in the turf industry wasn't known until the release of the first turf type tall fescue cultivar 'Rebel' in 1979 (Funk et. al, 1981). With the development of tall fescue as a turf type for the turfgrass industry, it has become one of the major turf species in United States. The major emphasis for breeding has been on the turf quality (darker leaf color, lower growth habit, and a fine leaf texture and dense turf canopy) in addition to disease and insect resistance. Tall fescue cultivars are utilized for several purposes such as home lawns, athletic fields, and golf course roughs and are managed in different environmental conditions. The demand is high among consumers for genetically stable, resistant cultivars with high turf quality and superior performance. The Rutgers University turfgrass breeding program has continued to develop improved tall fescue cultivars.

Presently, thousands of germplasm sources have been gone through cycles of selection and hybridization to improve turf quality, disease resistance, wear and drought tolerance, and rhizome formation and rapid lateral tillering rate. Newly collected germplasm has also been incorporated in the breeding program to introduce beneficial genes into the populations.

PROCEDURES

Field Establishment and Maintenance

Five tall fescue trials were established at the Rutgers Plant Biology and Pathology Research and Extension Farm at Adelphia, NJ between 2006 and 2010 (Tables 1 to 5). All tests were established in September by hand sowing 0.88 oz of seed per 3 x 5 ft plot (3.7 lb per 1000 ft²). All tests were arranged in randomized complete block design with three replications, and each plot had a 6-inch unseeded border to limit contamination. Broadleaf weeds were controlled with spring or fall applications of 2, 4-D, dicamba (Banvel), and MCP. Dithiopyr (Dimension) was applied in spring to control annual grassy weeds. In July, metalaxyl (Subdue) was applied when required to prevent Pythium blight disease.

Single applications of fertilizer did not exceed 1.0 lb nitrogen per 1000 ft². The amount and timing of nitrogen applied to the turf was varied to encourage disease and other stresses. Field trials were mowed regularly (approximately 1 to 2 times per week) with reel mowers to maintain a 1.5-inch height of cut. The annual rate of nitrogen applied as well as mowing height for each test is presented in Table 6. Based on soil test results, lime was applied as needed to maintain a pH of 6.0 to 6.5. Irrigation was applied to each test as needed to avoid wilting.

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Visual Assessment

All tests were rated throughout 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 ratings such as spring green-up, color, wear tolerance, density, and damage due to specific diseases were documented when significant differences were evident. All ratings were based on a 1 to 9 scale, where 9 represented the best turf characteristics. Plots were evaluated by a number of turfgrass specialists to reduce the impact of person 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) means separation test.

Inoculation

The 2008 to 2010 tall fescue tests (Tables 3 to 5) were screened for resistance to brown patch following field inoculation with two isolates of *Rhizoctonia solani* Kühn, the casual fungus of this disease. Inoculum was prepared by growing two isolates of *R. solani* on sterilized Kentucky bluegrass (*Poa pratensis* L.) seed following the method described by Bonos et al. (2003). The prepared inoculum was then placed in a drop spreader and applied to the field at a rate of 0.2 g per m² in late June. To ensure favorable disease development, water was applied to the field immediately after inoculation.

Wear Application

A novel wear machine (Bonos et al., 2001) was used to apply wear uniformly over each turf plot in the tall fescue trial established in 2009 (Table 4). The wear was applied to one-half of each turf plot, leaving the unworn half as a control. Wear was applied by passing the machine over each plot in one direction and then returning over each plot in the opposite direction. Wear was applied on 6 June and on 1 and 14 July 2011. A total of 4 passes with the wear machine were applied on each treatment date.

RESULTS AND DISCUSSION

Results of tall fescue tests are found in Tables 1 through 6. Except for the trial seeded in 2010 (Table 6), the tests are ranked by overall (multi-year) turf quality average. A high quality average is gener-

ally indicative of better disease resistance, a darker green color, greater turf density and uniformity, fine leaf texture, lower growth habit, improved mowing quality, and less damage due to insects.

Turf Quality

Cultivars and selections such as SP2, Faith, Cochise IV, Bonanza, ATF-1354, Jamboree, ATF-1352, Cannavaro, SC-1, and Falcon V showed higher turf quality in the turf trial established in 2006 (Table 1). In the 2007 turf trial, LW, IS-TF-153, IS-TF-161, LC1, Falcon V, Wolfpack II, BIZM, Mustang 4, Fesnova, and Shenandoah III performed well (Table 2). Cultivars and selections such as PO1, PSM 6351, LSD, B23, TPF, POM, IS-TF-177, IS-TF-178, Cochise IV, and TPC showed higher turf quality in the 2008 turf trial (Table 3). There were two trials established in 2009: B31, Regenerate, F9E, PPG-TF 104, PPG-TF-102, TF225, T31, TF 197, TF 196, and PST-5SRX performed well in one trial (Table 4), and cultivars and selections W41, Regenerate, W43, W42, W44, Falcon V, U42, LS 1200, and Faith performed well in the other (Table 5). Cultivars and selections such as CCR1, CCR2, RAD-TF69, RZ1, WE1, WE2, Regenerate, RZ2, Faith, and PPG-TF 105 performed well in the turf trial established in 2010 (Table 6). Higher turf quality increases the utility of tall fescue in athletic fields, school grounds, sod farms, lawns, and parks.

Disease Resistance

Brown patch is one of the major tall fescue diseases in our growing area. It causes significant damage during humid conditions in warm climates. Improved cultivars are available but there are no cultivars completely resistant to this disease. The data from the tables have illustrated significant brown patch resistance in multiple turf trials. Cultivars and selections such as IS-TF-67, TPS, FSD, PSG 8SP1, Falcon NG, LSD, Penn RK4, and Shenandoah Elite showed higher resistance to brown patch in the turf trial established in 2008 (Table 3). In the 2009 trials, cultivars and selections such as Regenerate, PPG-TF 104, PST-5A4S, SCTF3, TF224, PST-5DRP, Essential, PST-5YA, and TF 219 (Table 4) along with U42, Regenerate, W42, U45, W45, W43, U41, Falcon V, and Faith (Table 5) exhibited significant resistance to brown patch. In the 2010 turf trial, CCR2, CCR1, WE2, RAD-TF69, PPG-TF 105, WE1, RZ1, RZ2, and LSD were significantly resistance to the disease (Table 6).

Dollar spot (caused by *Sclerotinia homoeocarpa*) is the most common turf disease in North America (Couch, 1995). The disease appears as sunken, straw-colored patches in the turf that range from few leaf blades to the size of silver dollars (5.0 to 7.5 cm in diameter) (Smith, 1955). Data was collected from a turf trial established in 2009 where the disease occurred naturally. Cultivars such as W41, W43, U41, U43, Shenandoah Elite, Faith, U45, W42, and Mustang 4 showed significant resistance to dollar spot disease (Table 5).

Establishment

Improved establishment of tall fescue after seed sowing makes a sward denser and reduces soil erosion. The cultivars with improved establishment are in demand by turfgrass managers, sod growers, and consumers. Rapid establishment is an objective for turf breeders to improve germination and tillering rate. The score for establishment is done on a scale of 1 to 9, where 9 represents the best establishment. The cultivars exhibiting rapid establishment in the 2010 trial were Atlas, Picasso, K-31, 2nd Millennium, Grey-stone II, 3rd Millennium, Finelawn Express, Monet, Sixpoint, Justice, Gazalle II, Endeavor II, FSD, Van Gogh, Dynamic II, Penn 1901, Signia, Arid 3, Prospect, CCR1, Regenerate, Faith, LSD, SCTF 3, and CE-1 (Table 6).

Wear Tolerance

Slow recovery from traffic is one of the limiting factors for the use of tall fescue in athletic fields and roadsides. Improvement in recovery time from wear damage is one of the major objectives of the Rutgers Turfgrass Breeding Program. The wear tolerance of entries subjected to total of 12 passes of a wear simulator is shown in Table 4. Cultivars and selections PST 5GRB, B31, TF 225, DP50-9440, PPG-TF 102, PPG-TF 101, PST-Syn- 5EV9, and SCTF1 displayed higher wear tolerance compared to others in the experiments. The cultivars and selections were also evaluated for wear and wear recovery after traffic was applied with the wear stimulator. Cultivars and selections PST-5YA, B31, Regenerate, PST-5GRB, DP50-9440, TF-225, T31, PPG-TF 104, and PPG-TF 102 showed improved wear recovery.

SUMMARY

The turfgrass breeders at Rutgers and their corporate collaborators are continuing to make gradual improvements to tall fescue to increase its acceptance in the turfgrass industry. Resistance to brown patch and dollar spot are among the primary goals in the tall fescue breeding program. Incorporation of endophyte in tall fescue leads to increased persistence and tolerance to above-ground insect feeding. The consistent efforts to improve tall fescue help to make tall fescue a major cool-season grass.

ACKNOWLEDGMENTS

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REFERENCES

- Bonos, S. A., M. A. Casler, and W. A. Meyer. 2003. Inheritance of dollar spot resistance in creeping bentgrass. *Crop Sci.* 43:2189-2196.
- Bonos, S.A., E. Watkins, J.A. Honig, M. Sosa, T. Molnar, J.A. Murphy and W.A. Meyer. 2001. Breeding cool-season turfgrasses for wear tolerance using a wear simulator. *Int. Turf Soc Res. J.* 9:137-145.
- Buckner, R. C., J. B. Powell, and R. V. Frakes. 1979. Historical Development. *In: Tall Fescue.* R. C. Buckner and L. P. Bush, eds. Agron. Monogr. 20. ASA, CSSA, and SSSA, Madison, WI.
- Couch, H. B. 1995. *Disease of Turfgrasses*, 3rd ed. Krieger Publishing Company, Malabar, FL.
- Funk, C. R., R. E. Engel, W. K. Dickson, and R. H. Hurley. 1981. Registration of Rebel tall fescue. *Crop Sci.* 21:632.

Funk, C. R., R. H. White, and J. P. Breen. 1993. Importance of *Acremonium* endophytes in turf-grass breeding and management. *Agric., Ecosys. Environ.* 44:215-232.

Hoveland, C. S. 2009. History and Classification. *In: Tall Fescue for the Twenty-first Century.* H. A. Fribourg, D. B. Hannaway, and C. P. West, eds. *Agron Monogr.* 53. ASA, CSSA, and SSSA, Madison, WI.

Smith, J. D. 1955. Fungi and turf diseases. *J. Sports Turf Res. Inst.* 9:35-59.

Table 1. Performance of tall fescue cultivars and selections in a turf trial established in September 2006 at Adelphia, NJ.

Cultivar or Selection	-----Turf Quality ¹ -----					
	2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
1 SP2	6.6	6.6	7.0	6.7	6.6	5.9
2 Faith	6.5	6.7	7.0	6.3	6.4	6.1
3 Cochise IV	6.4	6.5	7.0	6.2	6.2	6.1
4 Bonanza II	6.2	5.6	6.2	6.1	6.4	6.5
5 ATF 1354	6.1	5.7	6.4	6.4	6.1	6.1
6 Jamboree	6.1	5.9	6.2	6.3	6.3	5.9
7 ATF 1352	6.1	5.7	6.4	6.3	6.1	6.1
8 Cannavaro	6.1	6.2	6.4	6.2	5.7	5.9
9 SC-1	6.0	5.7	6.5	6.0	6.2	5.8
10 Falcon V	6.0	5.7	6.4	6.0	6.1	5.9
11 SP1	6.0	6.5	6.4	5.9	5.7	5.5
12 Van Gogh	6.0	5.8	6.2	5.8	5.9	6.1
13 Firecracker LS	6.0	5.7	6.2	6.0	5.8	6.1
14 IS-TF-159	5.9	6.0	6.1	6.1	5.8	5.7
15 Penn RK 4	5.9	5.8	6.1	6.0	5.9	5.9
16 RK 5	5.9	5.6	6.1	5.8	6.1	5.9
17 Turbo	5.9	5.4	6.3	6.0	6.1	5.8
18 Monet	5.9	5.6	6.5	5.7	5.8	5.9
19 Hemi	5.9	5.5	6.1	5.9	6.1	5.9
20 Traverse SRP	5.9	5.4	6.0	6.0	6.1	6.0
21 ATF 1353	5.9	5.4	6.2	6.0	5.9	6.0
22 Rhambler SRP	5.9	5.6	6.1	6.2	5.9	5.6
23 Bullseye	5.8	5.3	6.2	5.8	6.2	5.7
24 Essential	5.8	5.3	5.9	6.0	6.0	5.9
25 Speedway	5.8	5.6	5.9	5.8	6.0	5.8
26 IS-TF 137	5.8	5.9	5.7	5.9	5.7	5.8
27 Spyder LS	5.8	5.6	5.5	5.9	6.0	6.0
28 Garrison	5.8	5.5	5.7	5.8	6.1	5.7
29 Shenandoah Elite	5.7	5.7	6.1	5.8	5.5	5.4
30 Braveheart	5.7	5.6	5.7	5.6	6.0	5.5
31 PST-5SXY Bulk	5.7	5.0	5.7	5.8	6.1	5.8
32 Toccoa	5.7	5.6	5.7	5.6	5.8	5.7
33 Catalyst	5.7	5.2	5.9	5.6	5.9	5.6
34 PSG 75-A-06	5.7	5.9	5.8	5.7	5.6	5.3
35 Wolfpack II	5.7	5.3	5.6	5.6	5.8	6.0

(Continued)

Table 1. Tall fescue turf trial, 2006 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----					
	2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
36 Mustang 4	5.6	5.7	5.5	5.7	5.7	5.7
37 Persuasion	5.6	5.1	5.8	5.7	5.7	6.0
38 Finelawn Xpress	5.6	5.8	5.6	5.7	5.8	5.2
39 RAD-TF28	5.6	5.5	5.4	6.1	5.7	5.5
40 PST-Syn-5DZP	5.6	5.9	5.4	5.8	5.6	5.4
41 STR 8 Rhz 8K	5.6	5.2	5.5	5.7	5.9	5.9
42 PSG 23-06	5.6	5.5	5.5	5.3	5.7	6.0
43 PSG 77-C-06	5.6	5.4	6.0	5.7	5.8	5.3
44 Sidewinder	5.6	5.5	5.6	5.8	5.6	5.5
45 Terrier	5.6	5.7	5.3	5.6	5.7	5.7
46 Raptor II	5.6	5.4	5.4	5.7	5.8	5.4
47 Six Point	5.5	5.8	5.7	5.6	5.3	5.2
48 Shenandoah III	5.5	5.3	6.2	5.6	5.4	5.2
49 CO3 comp	5.5	5.6	5.5	5.5	5.6	5.4
50 IS-TF 160	5.5	5.5	5.4	5.6	5.7	5.5
51 Talladega	5.5	5.6	5.4	5.2	5.9	5.5
52 PSG 55-B-06	5.5	5.9	5.2	5.5	5.7	5.3
53 Firenze	5.5	5.7	5.9	5.6	5.1	5.2
54 Trio	5.5	5.9	5.4	5.4	5.3	5.4
55 Fat Cat	5.5	5.9	5.7	5.4	5.4	5.0
56 ATF 1346	5.5	5.5	5.3	5.6	5.6	5.3
57 Dynamic II	5.5	5.0	5.4	5.4	5.7	5.8
58 CE3	5.5	5.2	5.7	5.6	5.5	5.2
59 ATF 1329	5.4	5.4	5.5	5.6	5.4	5.3
60 AR4	5.4	6.1	5.2	5.1	5.2	5.5
61 PSG 21-AB-06	5.4	5.4	5.6	5.4	5.4	5.2
62 PST-5DVD Bulk	5.4	5.1	5.4	5.5	5.5	5.5
63 PSG 55-C-06	5.4	5.6	5.4	5.5	5.3	5.1
64 AR2	5.4	5.3	5.3	5.4	5.1	5.7
65 PSG 67-C-06	5.4	5.5	5.4	5.3	5.2	5.5
66 MVS 3609	5.4	5.4	5.3	5.5	5.1	5.4
67 Greenbrooks	5.3	5.5	5.8	5.1	5.3	5.1
68 PSG-85QR	5.3	4.8	5.3	5.1	5.4	6.0
69 ATF 1284	5.3	5.7	5.3	5.2	5.3	5.3
70 Rocket	5.3	5.1	5.4	5.4	5.5	5.2

(Continued)

Table 1. Tall fescue turf trial, 2006 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----					
	2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
71 PST-Syn-56Y	5.3	5.5	5.3	5.2	5.6	5.0
72 Millennium SRP	5.3	5.8	5.7	5.4	4.8	4.9
73 RAD-TF33	5.3	5.6	5.4	5.0	5.4	5.1
74 Umbrella	5.3	5.0	5.6	5.4	5.4	5.1
75 PSG 67-B-06	5.3	5.4	5.4	5.5	5.1	4.9
76 RAD-TF29	5.3	5.2	5.1	5.4	5.3	5.3
77 Tulsa Time	5.3	5.6	5.2	5.0	5.1	5.3
78 Honkey Tonk	5.2	5.5	5.2	5.2	5.2	5.1
79 J-140	5.2	5.1	5.3	5.2	5.1	5.4
80 ATF 1245	5.2	5.5	5.5	5.3	4.8	5.0
81 MVS 1200	5.2	4.9	5.0	5.2	5.4	5.7
82 PST-R5W3	5.2	4.8	5.2	5.1	5.7	5.3
83 ATF 1248	5.2	5.0	4.9	5.5	5.4	5.2
84 Justice	5.2	5.1	5.5	5.2	5.1	5.1
85 ATF 1324	5.2	5.3	5.5	5.0	5.0	5.2
86 AR3	5.2	5.4	5.2	5.3	4.9	5.2
87 RAD-TF31	5.2	5.0	5.4	5.3	5.2	5.1
88 IS-TF 155	5.2	5.5	4.8	5.4	5.2	5.0
89 STR 86QRH	5.2	4.9	5.4	5.4	5.3	4.8
90 RAD-TF27	5.2	5.3	5.0	5.3	5.2	5.1
91 Titanium LS	5.1	5.1	5.4	5.1	5.3	4.8
92 ATF 1328	5.1	5.7	5.5	4.8	4.4	5.2
93 IS-TF 118	5.1	5.3	5.3	4.9	5.1	5.0
94 PST-Syn-5WPM	5.1	4.8	5.1	5.0	5.5	5.1
95 DaVinci	5.1	5.2	5.2	5.0	5.1	5.0
96 RNP	5.1	6.2	5.3	4.8	4.7	4.5
97 RAD-TF35	5.1	4.8	5.1	5.1	5.1	5.3
98 RAD-TF32	5.1	4.9	4.9	5.2	5.4	4.9
99 STR-8BB5	5.1	4.9	4.9	5.3	5.0	5.2
100 ATF 1344	5.1	5.0	5.0	4.8	5.2	5.3
101 Banshee	5.0	5.3	4.8	5.1	4.9	5.1
102 ATF 1325	5.0	5.3	5.0	4.8	5.0	5.1
103 ATF 1321	5.0	5.1	5.0	4.5	5.2	5.2
104 JT-41	5.0	5.4	5.3	4.7	4.8	4.9
105 GE-1	5.0	5.1	5.2	5.2	4.9	4.7

(Continued)

Table 1. Tall fescue turf trial, 2006 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----					
	2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
106 ATF 1334	5.0	5.0	5.1	5.0	5.1	5.0
107 SR 8650	5.0	5.3	5.0	5.3	5.0	4.5
108 PST-5R56	5.0	4.6	4.8	4.9	5.2	5.6
109 Ninja 3	5.0	5.3	5.2	4.9	4.7	4.9
110 JT-45	5.0	5.8	5.1	4.6	4.7	4.9
111 PSG-82BR	5.0	4.7	4.9	4.9	5.1	5.6
112 PST-5H20 Bulk	5.0	4.9	5.0	4.9	5.2	4.9
113 Inferno	5.0	5.8	5.0	4.9	4.9	4.5
114 AR1	5.0	4.6	5.1	5.0	5.0	5.2
115 CE 4	5.0	5.5	5.1	4.9	4.7	4.7
116 ATF 1357	5.0	5.0	5.0	4.6	4.9	5.4
117 RAD-TF30	5.0	4.7	5.3	5.0	4.8	5.1
118 ATF 1328	5.0	5.7	5.3	4.6	4.6	4.6
119 PST-5V4	5.0	4.8	4.9	4.7	5.2	5.3
120 BGR-TF1	5.0	5.8	5.2	4.8	4.4	4.6
121 KZ-1	5.0	5.8	5.2	4.6	4.6	4.7
122 PST-5BGR-06	5.0	4.5	5.3	5.0	5.1	4.9
123 Darlington	4.9	5.6	5.2	4.8	4.8	4.3
124 PST-5JG6 Bulk	4.9	4.8	5.0	4.9	5.0	5.0
125 Escalade	4.9	4.8	5.3	4.9	4.8	4.9
126 Pedigree	4.9	5.0	5.1	4.9	4.8	4.8
127 ATF 1112	4.9	5.0	4.9	4.8	5.0	5.0
128 ATF 1327	4.9	5.0	4.9	4.7	4.8	5.2
129 ATF 1107	4.9	4.8	4.4	4.7	5.3	5.4
130 Renovate	4.9	5.8	4.8	4.6	4.5	4.8
131 CE 2	4.9	5.0	4.8	4.8	5.0	4.9
132 BGR-TF2	4.9	5.8	5.2	4.8	4.2	4.5
133 Rebel Advance	4.9	4.9	5.0	4.8	5.0	4.8
134 Gazelle II	4.9	4.5	5.2	4.8	5.2	4.8
135 AST 9003	4.9	6.0	5.2	4.8	4.5	4.1
136 MVS-341	4.9	5.2	5.0	4.9	4.8	4.5
137 Falcon IV	4.9	5.2	4.9	4.8	4.8	4.7
138 Cezanne RZ	4.9	5.0	5.2	4.9	4.6	4.6
139 ATF 1358	4.9	5.0	4.8	4.9	4.8	4.9
140 CO2	4.9	4.9	4.9	5.0	4.8	4.8

(Continued)

Table 1. Tall fescue turf trial, 2006 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----					
		2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
141	SR 8600	4.9	5.4	4.7	4.6	4.8	4.8
142	PST-5LIV	4.9	4.8	4.9	4.8	4.7	5.2
143	Compete	4.9	5.4	5.2	4.8	4.5	4.4
144	BAR Fa 6253	4.9	4.9	5.6	4.7	4.8	4.3
145	GWTF	4.8	5.6	4.8	4.4	4.7	4.7
146	J-130	4.8	5.2	5.3	4.4	4.6	4.7
147	ATF 1200	4.8	4.9	4.7	4.6	4.9	5.2
148	PSG 62-A-06	4.8	5.0	4.9	4.7	4.6	5.0
149	Virtue II	4.8	4.4	4.6	4.8	5.0	5.5
150	Reunion	4.8	5.2	5.5	4.6	4.3	4.4
151	Falcon NG	4.8	4.6	4.8	4.7	4.9	5.1
152	Rebel IV	4.8	5.1	5.0	4.7	4.5	4.7
153	PSG 19-r3-06	4.8	5.1	4.9	4.9	4.9	4.3
154	JT-42	4.8	5.1	5.0	4.5	4.4	5.0
155	PSG-TTRH	4.8	5.1	5.0	4.6	4.7	4.5
156	Prospect	4.8	5.2	4.7	4.8	4.6	4.6
157	PST-R5EP	4.8	4.7	4.7	4.7	5.1	4.7
158	STR 8GRQR	4.8	4.6	4.8	4.7	4.8	5.1
159	AST 7002	4.8	5.1	5.0	4.3	4.8	4.7
160	AST 9001	4.8	5.9	5.0	4.4	4.3	4.3
161	Skyline	4.8	5.0	4.7	4.6	4.9	4.7
162	Stetson II	4.8	5.4	4.9	4.4	4.7	4.4
163	Turbo RZ	4.8	4.6	5.0	4.5	4.8	4.8
164	Apache III	4.8	4.8	4.9	4.7	4.8	4.5
165	Crossfire 3	4.7	5.6	4.9	4.5	4.4	4.3
166	Corona	4.7	5.3	4.7	4.5	4.6	4.4
167	Hounddog 6	4.7	5.3	4.6	4.6	4.7	4.4
168	Innovator	4.7	5.0	4.8	4.8	4.5	4.5
169	Guardian 21	4.7	5.0	4.6	4.6	4.7	4.7
170	RAD-TF40	4.7	5.2	4.7	4.8	4.6	4.3
171	ATF 1335	4.7	4.8	4.5	4.6	4.9	4.8
172	ATF 1336	4.7	4.7	4.6	4.7	4.4	5.1
173	BAR Fa 6363	4.7	5.0	4.6	4.5	4.4	5.0
174	PST-5KB	4.7	5.5	5.0	4.4	4.5	4.1
175	Finelawn Elite	4.7	5.0	4.7	4.8	4.5	4.5

(Continued)

Table 1. Tall fescue turf trial, 2006 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----					
	2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
176 Cochise III	4.7	5.2	4.6	4.5	4.6	4.6
177 Tahoe II	4.7	5.0	4.6	4.6	4.3	4.8
178 Prestige	4.7	5.2	4.5	4.5	4.8	4.4
179 KZ-2	4.7	5.3	4.7	4.6	4.4	4.3
180 ATF 1338	4.7	4.8	5.0	4.3	4.4	4.8
181 PST-51L4	4.6	4.7	4.4	4.4	4.8	4.8
182 PSG 18-A-06	4.6	5.0	4.8	4.7	4.7	4.1
183 PSG 19-r8-06	4.6	5.0	4.6	4.3	4.7	4.5
184 PSG 19 r4-06	4.6	5.0	4.9	4.5	4.4	4.3
185 ATF 1330	4.6	5.0	4.9	4.6	4.3	4.3
186 ATF 1331	4.6	5.1	4.7	4.7	4.4	4.3
187 PST-5SIS	4.6	4.2	4.6	4.6	4.8	4.9
188 CM	4.6	4.6	4.5	4.6	4.7	4.8
189 MVS-1107	4.6	4.5	4.6	4.7	4.6	4.6
190 ATF 1323	4.6	5.2	4.6	4.2	4.5	4.7
191 ATF 1342	4.6	4.9	4.3	4.5	4.5	4.8
192 Cortez II	4.6	5.2	5.1	4.4	4.1	4.2
193 ATF 1283	4.6	5.0	4.4	4.3	4.6	4.7
194 ATF 1318	4.6	5.0	4.4	4.3	4.6	4.7
195 AST 7001	4.6	5.3	4.6	4.4	4.5	4.2
196 AST 7003	4.6	5.5	4.6	4.2	4.1	4.4
197 JT-36	4.6	4.7	5.0	4.7	4.6	3.9
198 ATF 1326	4.6	5.3	4.3	4.3	4.7	4.4
199 PSG 9-A-06	4.6	4.8	4.6	4.7	4.6	4.2
200 JT-33	4.6	5.2	4.7	4.7	4.1	4.2
201 PSG 20 bulk-06	4.6	5.0	4.6	4.9	4.4	4.0
202 AST 1001	4.6	5.1	5.0	4.3	4.2	4.2
203 Col-1	4.6	5.0	4.6	4.4	4.5	4.3
204 ATF 1360	4.6	5.0	4.9	4.7	4.1	4.1
205 Bingo	4.5	5.4	4.7	4.4	4.2	4.1
206 PST-5GZ6 Bulk	4.5	4.9	4.3	4.3	4.6	4.7
207 Scorpion II	4.5	5.0	4.6	4.2	4.5	4.3
208 ATF 1339	4.5	5.1	4.2	4.1	4.4	4.8
209 Matador GT	4.5	4.8	4.6	4.7	4.4	4.2
210 Raptor	4.5	5.3	4.2	4.7	4.4	3.9

(Continued)

Table 1. Tall fescue turf trial, 2006 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----					
	2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
211 ATF 1345	4.5	4.8	4.7	4.5	4.2	4.3
212 Titanium	4.5	5.1	4.8	4.3	4.2	4.0
213 STR Tit QR	4.5	4.7	4.6	4.3	4.3	4.6
214 Montana	4.5	4.8	4.3	4.2	4.5	4.8
215 Einstein	4.5	4.9	5.0	4.4	4.0	4.2
216 ATF 1262	4.5	4.7	4.6	4.3	4.5	4.4
217 CO1	4.5	4.5	4.4	4.2	4.2	5.0
218 ATF 1333	4.5	4.8	4.7	4.3	4.1	4.5
219 PSG 20-r4-06	4.5	5.1	4.7	4.2	4.3	4.1
220 Tuxedo	4.5	5.1	4.6	4.3	4.1	4.2
221 Blackwatch	4.5	5.1	4.7	4.3	4.2	4.1
222 Avenger	4.4	5.1	4.7	4.5	4.1	3.8
223 PSG 13-AB-06	4.4	4.4	4.5	4.5	4.3	4.6
224 PSG 19 bulk-06	4.4	4.9	4.5	4.5	4.5	3.9
225 PSG 19-r2-06	4.4	4.6	4.7	4.2	4.3	4.4
226 06-DUST	4.4	4.4	5.0	4.3	4.2	4.3
227 PSG 20-r5-06	4.4	4.8	4.6	4.1	4.3	4.3
228 ATF 1320	4.4	4.9	4.5	4.3	4.0	4.4
229 Hudson	4.4	4.7	4.7	4.4	4.1	4.2
230 Blade Runner	4.4	4.8	4.4	4.1	4.2	4.4
231 PSG 19-r5-06	4.4	5.0	4.4	4.4	4.3	4.0
232 0312	4.4	5.0	4.4	4.3	4.0	4.2
233 GO-1BFD	4.4	4.1	4.3	4.2	4.6	4.6
234 PST-R5B4 Bulk	4.4	4.5	4.3	4.3	4.1	4.7
235 SR 8550	4.4	4.8	4.5	4.1	4.3	4.2
236 Dakota	4.4	4.6	4.5	4.2	4.0	4.6
237 PSG-RNDR	4.4	4.6	4.6	4.0	4.4	4.3
238 Magellan	4.4	4.8	4.4	4.3	4.0	4.5
239 PSG 19-r6-06	4.4	4.3	4.6	4.1	4.5	4.3
240 ATF 1332	4.4	5.1	4.3	4.3	3.8	4.3
241 PSG 19-r1-06	4.4	4.5	4.5	4.5	4.3	4.0
242 Tombstone	4.4	5.2	4.8	4.0	3.9	3.8
243 Rembrandt	4.4	4.3	4.6	4.4	4.2	4.3
244 Regiment II	4.4	4.7	4.0	4.3	4.3	4.5
245 Rebel Sentry	4.3	4.6	4.0	4.2	4.3	4.6

(Continued)

Table 1. Tall fescue turf trial, 2006 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----					
	2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
246 AST 9002	4.3	5.0	4.5	3.9	4.1	4.2
247 ATF 1343	4.3	4.9	4.3	4.1	4.2	4.1
248 Silverado II	4.3	4.5	4.7	4.0	4.2	4.3
249 ATF 1341	4.3	4.6	4.6	4.0	4.1	4.2
250 ATF 1337	4.3	4.4	4.2	4.2	4.2	4.5
251 PSG 18-r4-06	4.3	4.5	4.5	4.4	4.2	4.0
252 STR Reg QRD	4.3	4.8	4.3	3.9	4.1	4.3
253 Rebel Exceda	4.3	4.9	4.9	4.1	3.6	4.0
254 Forte	4.3	4.9	4.4	4.1	3.9	4.1
255 Signia	4.3	4.8	4.4	4.3	4.2	3.7
256 ATF 1359	4.3	4.9	4.1	4.2	3.7	4.4
257 Silverstar	4.3	4.8	4.5	4.0	4.0	4.0
258 Rebel Pro	4.2	4.5	4.4	4.0	4.0	4.3
259 PSG 18 bulk-06	4.2	4.5	4.3	4.3	3.8	4.3
260 Hunter	4.2	5.7	4.5	3.9	3.5	3.5
261 PSG 18-r3-06	4.2	4.1	4.4	4.2	4.5	3.9
262 Five Point	4.2	3.7	4.1	4.3	4.4	4.7
263 PSG 20-r2-06	4.2	4.4	4.4	4.0	4.2	4.2
264 PST-5MTV Bulk	4.2	4.3	4.0	4.3	4.0	4.4
265 PSG 10-A-06	4.2	4.1	4.2	4.1	4.2	4.4
266 PSG 18-15-06	4.2	4.4	4.0	4.0	4.2	4.3
267 Greenkeeper	4.1	4.3	4.2	3.9	4.2	4.1
268 ATF 1340	4.1	4.4	4.1	3.9	3.9	4.3
269 Grande II	4.1	4.9	4.0	3.9	3.9	4.0
270 PSG 20-r1-06	4.1	4.3	4.3	4.2	4.0	3.9
271 Padre	4.1	4.6	4.7	3.7	3.6	3.9
272 PSG 20-r3-06	4.1	4.6	4.2	4.1	3.9	3.6
273 PSG 20-r1-06	4.1	4.0	4.0	4.1	4.3	4.1
274 Constitution	4.1	4.4	4.0	3.8	3.9	4.3
275 Tar Heel II	4.1	4.1	4.0	3.8	4.3	4.0
276 06-WALK	4.0	4.6	4.1	3.9	3.6	4.0
277 STR 86 QRD	4.0	4.5	4.1	4.0	3.7	3.8
278 Biltmore	4.0	4.6	4.3	3.6	3.8	3.6
279 Greystone	4.0	3.9	4.0	4.1	4.0	3.9
280 Lindbergh	4.0	4.2	4.2	3.7	3.7	4.0

(Continued)

Table 1. Tall fescue turf trial, 2006 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----					
	2007-2011 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
281 ATF 1350	3.9	4.0	4.0	3.8	3.8	4.2
282 PSG 18-r6-06	3.9	4.2	4.0	3.7	3.8	3.9
283 PST-5GH4	3.9	4.3	4.1	3.7	3.9	3.6
284 PSG 19-r7-06	3.9	4.2	4.1	3.5	3.8	3.8
285 STR TUQRD	3.9	3.9	4.2	3.6	3.6	4.0
286 PSG 18-r2-06	3.8	3.8	4.2	3.8	3.8	3.6
287 Plato	3.8	4.4	3.9	3.6	3.5	3.7
288 Trooper	3.8	4.5	4.0	3.5	3.5	3.5
289 Aristotle	3.8	4.3	4.1	3.4	3.2	3.9
290 AMF-107	3.7	4.2	4.3	2.9	3.4	3.8
291 Watchdog	3.7	4.1	4.1	3.1	3.3	3.7
292 PSG-TTST	3.6	4.1	3.6	3.3	3.4	3.8
293 Tulsa II	3.6	3.7	3.3	3.3	3.8	3.9
294 Titan Ltd	3.2	3.4	3.1	2.7	3.2	3.4
295 Silverado	3.0	3.3	3.1	2.4	2.9	3.2
296 Paraiso	2.9	3.4	2.9	2.4	2.9	2.9
297 Ky-31	1.8	1.2	1.0	1.1	2.8	3.0
LSD at 5% =	0.5	0.7	0.6	0.6	0.7	0.7

¹9 = best turf quality

Table 2. Performance of tall fescue cultivars and selections in a turf trial established in September 2007 at Adelphia, NJ.

Cultivar or Selection	-----Turf Quality ¹ -----				
	2008-2011 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
1 Regenerate	6.7	6.7	7.3	6.2	6.6
2 IS-TF 153	6.4	6.3	6.5	6.5	6.2
3 IS-TF 161	6.3	6.3	6.6	6.2	5.9
4 LC1	6.2	5.9	6.3	6.4	6.4
5 MVS-3609	6.2	5.9	6.3	6.3	6.3
6 Falcon V	6.2	5.8	6.4	6.1	6.7
7 POM	6.2	6.4	6.3	6.2	6.0
8 Wolfpack II	6.2	5.7	6.5	6.4	6.2
9 BIZM	6.2	6.1	6.5	6.0	6.2
10 Mustang 4	6.1	5.7	6.5	5.9	6.5
11 Fesnova	6.1	5.6	6.0	6.6	6.1
12 Shenandoah III	6.1	5.6	6.3	5.9	6.6
13 PST-Syn-5AWT	6.1	5.6	6.1	6.3	6.4
14 IS-TF 155	6.0	5.9	5.9	6.1	6.2
15 IS-TF 175	6.0	5.5	6.2	5.9	6.5
16 ATF-1382	6.0	5.7	6.1	6.4	5.9
17 IS-TF 154	6.0	5.7	5.9	6.2	6.2
18 FCE3	6.0	5.9	6.4	6.2	5.5
19 IS-TF 177	6.0	5.8	6.1	6.1	5.9
20 Cochise IV	5.9	6.0	5.7	6.0	6.0
21 Rocket	5.9	5.9	5.7	6.0	6.1
22 Sidewinder	5.9	6.1	5.9	6.0	5.6
23 RAD-TF50	5.9	5.7	6.0	6.0	5.9
24 ATE	5.8	5.1	5.9	6.2	6.1
25 Dynamic II	5.8	5.5	5.8	6.0	6.1
26 Faith	5.8	6.1	5.8	5.9	5.5
27 BC3	5.8	5.7	5.7	6.3	5.6
28 BIZL	5.8	5.1	5.8	6.3	6.0
29 Spyder LS	5.8	5.9	5.8	5.6	5.9
30 PST-Syn-5A47	5.7	6.0	5.7	5.9	5.4
31 Terrano	5.7	5.5	5.7	6.2	5.5
32 IS-TF 178	5.7	5.5	5.5	6.0	5.9
33 IS-TF 179	5.7	5.4	5.4	5.7	6.3
34 Finelawn Xpress	5.7	5.4	5.6	5.8	5.9
35 Shenandoah Elite	5.7	5.1	5.7	5.8	6.1

(Continued)

Table 2. Tall fescue turf trial, 2007 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				
	2008-2011 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
36 Hemi	5.7	5.2	5.5	5.9	6.0
37 BIZE	5.7	5.5	6.0	5.7	5.4
38 BC1	5.7	5.4	5.3	5.6	6.3
39 TR1	5.6	5.7	5.6	6.1	5.2
40 RAD-TF46	5.6	5.3	5.8	5.7	5.7
41 IS-TF 160	5.6	5.4	5.5	5.9	5.6
42 ATF-1383	5.5	5.0	5.5	5.9	5.7
43 RAD-TF55	5.5	5.0	5.5	6.3	5.4
44 PST-Syn-5DKR	5.5	5.0	5.4	6.3	5.4
45 GG3	5.5	5.3	5.3	5.9	5.6
46 RAD-TF49	5.5	5.4	5.7	6.0	5.0
47 40-07 Bulk	5.5	5.6	5.7	5.6	5.0
48 TR3	5.5	5.5	5.5	5.5	5.5
49 Ampac-152	5.5	5.7	5.4	5.6	5.3
50 RAD-TF54	5.5	5.0	5.5	6.1	5.4
51 RAD-TF51	5.5	5.2	5.7	5.6	5.5
52 RAD-TF48	5.5	5.6	5.8	5.3	5.1
53 RAD-TF47	5.5	5.3	5.5	6.0	5.0
54 14-07 Bulk	5.5	5.9	5.8	5.3	4.8
55 5JAG	5.5	5.1	5.1	5.8	5.8
56 Gazelle II	5.4	5.2	5.3	5.7	5.5
57 ATF-1373	5.4	5.1	5.5	5.7	5.5
58 GG2	5.4	5.4	5.3	5.7	5.4
59 Matador GT	5.4	5.6	5.8	5.7	4.7
60 RAD-TF24R	5.4	5.5	5.6	5.7	5.0
61 Persuasion	5.4	5.5	5.4	5.4	5.4
62 IS-TF 180	5.4	4.9	5.2	5.7	5.7
63 41-07 Bulk	5.4	5.4	5.3	5.6	5.2
64 34-07 Bulk	5.3	5.8	5.3	5.1	5.2
65 Falcon IV	5.3	6.0	5.5	5.4	4.4
66 SRO 8BB5	5.3	5.2	4.6	5.8	5.7
67 Falcon NG	5.3	4.9	5.2	5.6	5.6
68 PST-Syn-5JAE	5.3	4.9	5.1	5.6	5.6
69 RAD-TF16	5.3	5.2	5.3	5.4	5.3
70 Inferno	5.3	5.4	5.5	5.6	4.8

(Continued)

Table 2. Tall fescue turf trial, 2007 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				
	2008-2011 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
71 STR 86QRH	5.3	5.0	5.5	5.6	5.1
72 STR 8DDOR	5.3	5.5	5.3	5.2	5.0
73 AR7	5.3	4.6	5.6	5.5	5.3
74 ATF-1294	5.2	5.1	5.1	5.8	4.9
75 PST-Syn-5EVA	5.2	4.7	4.8	5.8	5.6
76 RAD-TF44	5.2	5.3	5.1	5.5	5.0
77 RAD-TF31	5.2	5.0	5.1	5.4	5.2
78 CE-4	5.2	5.4	4.9	5.4	5.1
79 RAD-TF52	5.2	5.5	5.2	5.2	4.8
80 DDM QRH	5.2	5.4	5.3	5.1	4.9
81 PST-5BGR	5.2	5.1	4.8	5.4	5.4
82 RAD-TF31	5.2	5.2	5.1	5.3	5.0
83 ATF 1236	5.1	5.1	5.1	5.5	4.9
84 ATF 1334	5.1	5.3	4.9	5.1	5.2
85 SRO 85 QRV	5.1	5.2	5.1	5.4	4.7
86 PST-Syn-5SLE	5.1	5.2	4.8	5.2	5.3
87 38-07 R-5	5.1	5.5	5.1	5.4	4.3
88 RAD-TF45	5.1	4.8	5.1	5.1	5.4
89 Stonewall	5.1	5.3	4.9	5.6	4.6
90 ATF 1327	5.1	5.0	4.7	5.5	5.2
91 Ninja 3	5.1	4.7	5.2	5.6	4.8
92 PST-5BAB	5.1	5.7	5.0	5.1	4.5
93 Apache III	5.1	5.0	5.5	5.5	4.4
94 SRO GRQR	5.1	5.1	4.9	5.5	4.8
95 PST 5LIV	5.0	5.3	5.1	5.0	4.7
96 35-07 Bulk	5.0	5.1	4.9	5.2	4.9
97 38-07 R-4	5.0	5.5	5.0	5.2	4.4
98 PST-Syn-5EW	5.0	5.0	4.8	5.3	5.0
99 PST-5DVD-07	5.0	4.6	4.6	5.5	5.4
100 RNP	5.0	5.2	5.0	5.4	4.4
101 ATF-1380	5.0	5.0	4.7	5.2	5.1
102 ATF 1301	5.0	5.3	4.8	5.2	4.6
103 ATF-1381	5.0	4.8	4.7	5.5	4.9
104 38-07 R-1	5.0	5.0	5.2	5.3	4.4
105 38-07 R-6	5.0	4.9	4.9	5.5	4.7

(Continued)

Table 2. Tall fescue turf trial, 2007 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				
	2008-2011 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
106 Innovator	5.0	5.0	4.7	5.6	4.6
107 38-07 R-8	5.0	5.2	4.9	5.2	4.6
108 Six Point	5.0	5.1	5.0	5.1	4.6
109 AA3A4POL	4.9	5.2	4.9	5.2	4.4
110 Endeavor II	4.9	4.8	4.8	5.1	5.0
111 38-07 R-11	4.9	5.1	5.1	5.0	4.4
112 A4	4.9	5.2	4.6	5.2	4.6
113 PST-Syn-5ZT16	4.9	4.7	4.7	5.0	5.1
114 38-07 R-2	4.9	5.1	4.9	5.1	4.4
115 RAD-TF32	4.9	4.9	4.7	5.2	4.7
116 PST-5SIS	4.9	4.5	4.7	5.2	5.1
117 Scorpion II	4.9	4.9	4.9	5.4	4.3
118 AA3R16-5	4.9	5.3	4.7	5.1	4.3
119 AA2R25-7	4.9	4.6	4.8	5.3	4.8
120 37-07 R-12	4.9	4.8	5.0	4.9	4.7
121 Shenandoah Sport	4.9	5.3	4.7	5.0	4.4
122 SR 8550	4.9	4.9	5.0	5.4	4.1
123 Pedigree	4.9	4.8	4.5	5.6	4.5
124 Justice	4.8	4.7	4.5	4.9	5.0
125 Guardian 21	4.8	5.1	4.6	5.2	4.1
126 Cayenne	4.8	4.6	4.4	5.2	4.8
127 Blade Runner	4.8	5.2	4.7	4.9	4.2
128 Rebel Advance	4.7	4.9	4.8	5.2	4.0
129 Jaguar 4G	4.7	5.1	4.5	5.1	4.1
130 37-07 Bulk	4.7	4.9	4.8	4.9	4.3
131 SRO STR THQR	4.7	4.4	4.7	4.8	4.7
132 PST-Syn-5SL5-07	4.7	4.4	4.5	4.9	4.8
133 STR TitOR	4.6	4.6	4.8	5.1	4.1
134 22-07 Bulk	4.6	4.7	4.1	5.2	4.5
135 Empress	4.6	4.5	4.1	5.1	4.7
136 Virtue II	4.6	4.5	4.5	4.8	4.4
137 SRO PSG TTRH	4.6	4.7	4.5	4.7	4.3
138 38-07 R-7	4.5	4.9	4.4	5.0	3.8
139 38-07 R-10	4.5	4.1	4.8	4.8	4.4
140 Green Keeper	4.5	4.3	4.4	5.0	4.4

(Continued)

Table 2. Tall fescue turf trial, 2007 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				
	2008-2011 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
141 SRO PSG RNDR	4.5	4.5	4.4	4.9	4.3
142 ATF-1349	4.5	4.9	4.4	4.7	4.1
143 Blackwatch	4.5	4.9	4.3	4.8	4.1
144 Grande II	4.5	4.9	4.2	4.8	4.1
145 Fidelity	4.5	4.6	4.7	4.7	4.0
146 CIAZRH	4.5	4.6	4.7	4.8	4.0
147 Brockton	4.5	4.5	4.6	5.0	3.7
148 Turbo	4.4	4.5	4.3	4.8	4.1
149 Sitka	4.4	4.9	4.3	4.8	3.7
150 38-07 Bulk	4.4	5.1	4.6	4.5	3.5
151 PST-5GH4	4.4	5.0	4.0	4.8	3.8
152 38-07 R-9	4.4	4.9	4.7	4.5	3.5
153 SR 8600	4.4	4.6	4.3	4.6	3.9
154 Arid 3	4.3	4.2	4.5	4.6	4.0
155 Silverado II	4.3	4.3	4.1	4.8	4.2
156 Quest	4.3	4.4	4.3	4.8	3.7
157 Bingo	4.3	4.2	4.1	4.5	4.2
158 PSG TTST	4.2	4.2	4.2	4.6	4.0
159 Tar Heel II	4.1	4.3	4.0	4.5	3.7
160 Watchdog	4.1	4.5	3.9	4.4	3.7
161 Wolfpack	4.1	3.8	4.1	4.7	3.8
162 Regiment II	4.0	4.1	4.1	4.4	3.3
163 Endeavor	3.9	4.3	3.4	4.3	3.6
164 Titan Ltd	3.7	3.7	3.3	4.1	3.6
165 Pixie	3.5	3.8	3.2	4.0	3.1
166 Jaguar 3	3.5	3.6	3.1	3.9	3.4
167 Amalia	2.1	1.9	1.8	2.9	2.0
168 PST-5CAN	1.4	1.0	1.1	2.2	1.3
LSD at 15% =	0.6	0.7	0.9	0.9	0.8

¹9 = best turf quality

Table 3. Performance of tall fescue cultivars and selections in a turf trial established in September 2008 at Adelphia, NJ.

Cultivar or Selection	-----Turf Quality ¹ -----				Brown Patch ² July 2011
	2009-2011 Avg.	2009 Avg.	2010 Avg.	2011 Avg.	
1 PO1	7.1	6.8	7.2	7.3	4.7
2 PSM 6351	6.9	6.7	6.8	7.0	4.3
3 LSD	6.8	6.8	6.8	6.8	5.3
4 B23	6.7	6.5	6.8	6.9	4.7
5 PST-5AWT	6.6	6.3	6.7	6.9	5.0
6 TPF	6.6	6.5	6.7	6.7	5.0
7 POM	6.5	6.3	6.4	6.9	3.0
8 IS-TF-177	6.5	6.4	6.8	6.2	5.0
9 IS-TF-178	6.5	6.4	6.8	6.2	5.0
10 Cochise IV	6.4	6.7	6.7	6.0	3.3
11 TPC	6.4	6.5	6.6	6.3	5.7
12 Regenerate	6.4	6.7	5.8	6.8	5.3
13 IS-TF-179	6.4	6.3	6.4	6.4	5.0
14 Shenandoah Elite	6.3	6.2	6.4	6.5	5.3
15 Falcon V	6.3	6.2	6.4	6.3	4.3
16 60-08-2	6.3	6.3	6.5	6.1	3.0
17 Firecracker LS	6.3	6.3	6.2	6.4	3.3
18 IS-TF-175	6.3	6.0	6.5	6.3	4.7
19 Jamboree	6.3	6.1	6.1	6.5	4.3
20 Faith	6.2	6.4	6.4	5.9	3.3
21 60-08-8	6.2	6.1	6.6	6.0	3.7
22 Garrison	6.2	6.3	6.1	6.3	3.7
23 60-08-6	6.2	5.9	6.3	6.4	5.3
24 PENN-RK-4	6.1	6.0	6.1	6.3	5.3
25 Spyder LS	6.1	6.2	6.3	5.9	4.0
26 60-08-9	6.1	6.0	6.4	5.9	4.7
27 Side Winder	6.1	6.1	6.2	6.0	3.7
28 Speedway	6.1	5.7	6.3	6.2	4.3
29 Mustang 4	6.1	6.1	6.0	6.0	5.3
30 Essential	6.0	5.8	6.0	6.3	4.3
31 PCO	6.0	5.8	6.2	5.9	5.0
32 59-08-12	6.0	6.2	5.9	5.9	3.7
33 59-08-11	6.0	6.1	5.9	5.8	5.0
34 Rocket	6.0	5.8	6.1	6.0	4.7
35 3rd Millennium	6.0	5.8	6.0	6.0	5.0

(Continued)

Table 3. Tall fescue turf trial, 2008 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				Brown Patch ² July 2011
	2009-2011 Avg.	2009 Avg.	2010 Avg.	2011 Avg.	
36 Shenandoah III	6.0	5.8	5.8	6.3	3.0
37 Finelawn Express	5.9	5.8	5.9	6.1	3.3
38 59-08-02	5.9	6.0	5.9	5.9	5.0
39 BIZM	5.9	5.9	5.8	6.0	5.0
40 TWA	5.9	5.6	6.0	6.1	4.0
41 60-08-5	5.8	5.9	5.8	5.8	5.3
42 GSD	5.8	5.9	6.2	5.3	5.0
43 FSD	5.8	5.4	6.2	5.8	6.0
44 PST-5A4S	5.8	6.2	5.8	5.5	4.7
45 PO3	5.8	6.0	5.9	5.4	4.7
46 60-08 Bulk	5.8	5.7	6.1	5.5	5.0
47 59-08-08	5.8	5.6	5.7	6.0	5.0
48 72-08-1	5.8	5.6	5.8	5.9	4.0
49 59-08-06	5.8	6.2	6.0	5.1	5.3
50 Van Gogh	5.7	5.8	5.9	5.5	3.3
51 60-08-4	5.7	5.9	6.0	5.3	3.3
52 PO2	5.7	5.8	5.9	5.5	4.7
53 Trio	5.7	5.6	6.1	5.4	4.3
54 60-08-7	5.7	5.6	5.8	5.6	4.0
55 59-08-01	5.7	5.7	5.5	5.7	5.3
56 NSD	5.7	5.7	6.2	5.1	4.0
57 Fat Cat	5.6	5.9	5.6	5.4	5.3
58 BSD	5.6	5.3	5.7	5.8	5.3
59 Monet	5.6	5.3	5.7	5.8	3.0
60 84-08-2	5.6	5.4	5.9	5.5	3.3
61 Persuasion	5.6	5.6	5.8	5.2	3.7
62 72-08 Bulk	5.5	5.6	5.4	5.6	4.0
63 84-08 Bulk	5.5	5.3	5.8	5.5	6.3
64 PST-5JAG-08	5.5	5.3	5.9	5.4	4.7
65 59-08 Bulk	5.5	5.7	5.7	5.1	5.0
66 PSG 8SP1	5.5	5.4	5.5	5.6	5.7
67 72-08-3	5.5	5.8	5.6	5.1	4.3
68 SR 8650	5.5	6.1	5.5	4.8	3.3
69 60-08-1	5.5	5.5	5.5	5.4	4.3
70 RAD-TF58	5.4	5.4	5.6	5.3	3.3

(Continued)

Table 3. Tall fescue turf trial, 2008 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				Brown Patch ² July 2011
	2009-2011 Avg.	2009 Avg.	2010 Avg.	2011 Avg.	
71 84-08-3	5.4	5.6	5.6	5.1	4.0
72 PST-5JAG	5.4	5.1	5.5	5.7	4.7
73 STR 8BBS	5.4	5.2	5.7	5.4	4.7
74 60-08-3	5.4	5.4	5.9	4.9	4.3
75 RAD-TF57	5.4	6.1	5.3	4.7	3.7
76 Titanium LS	5.3	5.3	5.4	5.3	4.3
77 PSG 85QR	5.3	5.7	5.2	4.9	3.3
78 ATE	5.3	5.8	5.1	4.9	5.3
79 72-08-2	5.3	5.2	5.2	5.4	4.3
80 Inferno	5.2	5.5	5.3	4.8	3.7
81 84-08-1	5.2	5.2	5.4	5.2	4.0
82 RAD-TF60	5.2	5.7	5.1	4.8	4.3
83 Rebel IV	5.2	5.5	5.4	4.7	4.7
84 ATF-1236	5.2	5.5	5.2	4.8	4.3
85 ATF-1334	5.2	5.6	5.4	4.6	4.0
86 PST-5SXR	5.1	4.9	5.4	5.2	3.7
87 Stingray	5.1	5.8	5.4	4.2	4.0
88 STR 86QR	5.1	5.8	4.9	4.6	3.7
89 RAD-TF59	5.1	5.1	5.5	4.7	3.7
90 Falcon IV	5.1	5.3	5.2	4.8	4.7
91 Rebel Exeda	5.0	5.0	5.3	4.8	5.3
92 60-08-10	5.0	5.5	5.2	4.3	3.0
93 Rambler	5.0	5.7	4.9	4.5	4.7
94 PST-5R05	5.0	4.8	5.1	5.1	5.3
95 RAD-TF-31	5.0	5.1	5.3	4.6	3.0
96 Falcon NG	5.0	5.1	4.7	5.1	5.7
97 Pedigree	5.0	5.0	5.3	4.6	3.7
98 Da Vinci	5.0	5.0	5.0	4.9	4.0
99 PST-5DVD-07	5.0	4.9	4.9	5.1	4.0
100 ATF-1294	4.9	5.1	4.8	4.9	3.3
101 STR 8GRQR	4.9	5.1	5.2	4.4	3.3
102 PST-5FDR	4.9	5.2	5.0	4.4	3.3
103 Shenandoah Sport	4.9	5.2	5.0	4.5	3.7
104 RAD-TF56	4.9	4.9	5.4	4.3	4.7
105 RNP	4.8	5.7	4.7	4.2	4.3

(Continued)

Table 3. Tall fescue turf trial, 2008 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				Brown Patch ² July 2011
	2009-2011 Avg.	2009 Avg.	2010 Avg.	2011 Avg.	
106 Ninja 3	4.8	4.8	4.9	4.8	5.0
107 05FA-01	4.8	5.8	4.4	4.2	3.3
108 Tulsa Time	4.8	5.6	5.1	3.7	3.0
109 Six Point	4.8	5.2	4.8	4.4	4.3
110 Rebel Sentry	4.8	4.5	4.6	3.2	3.7
111 03FA-05	4.8	5.3	4.7	4.4	4.7
112 PSG 8AZRH2	4.8	5.5	4.6	4.3	4.0
113 Justice	4.8	5.1	4.6	4.7	4.0
114 Cayenne	4.8	4.8	4.9	4.6	5.0
115 59-08-05	4.8	5.6	4.8	4.0	3.7
116 59-08-03	4.7	5.5	4.7	4.1	5.3
117 ATF-1301	4.7	5.2	4.9	4.1	2.7
118 PSG TTQR	4.7	4.8	5.1	4.0	4.0
119 59-08-04	4.6	5.9	4.1	3.9	4.0
120 59-08-10	4.6	5.5	4.1	4.4	4.7
121 PSG DDMQR	4.6	5.5	4.4	3.9	4.3
122 Signia	4.6	5.4	4.9	3.6	4.0
123 Forte	4.6	5.3	4.7	3.7	3.3
124 Jaguar 4G	4.6	5.1	4.8	3.8	4.0
125 ATF-1327	4.6	4.6	4.7	4.4	5.0
126 SR 8550	4.5	5.5	4.5	3.6	5.0
127 Rebel Advance	4.5	5.5	4.4	3.6	4.3
128 Picasso	4.5	4.9	4.7	3.8	4.7
129 59-08-09	4.5	4.9	4.4	4.3	4.7
130 Traverse SRP	4.5	4.9	4.1	4.4	4.3
131 IS-TF-67	4.5	5.1	4.6	3.7	6.0
132 Blackwatch	4.5	5.1	4.7	3.6	4.3
133 Guardian 21	4.4	4.9	4.6	3.8	5.3
134 Virtue II	4.4	4.9	4.3	4.0	5.0
135 59-08-07	4.4	5.3	4.1	3.8	5.0
136 Coronado TDH	4.4	5.1	4.4	3.6	3.3
137 84-08-4	4.4	4.9	4.1	4.0	3.3
138 PST-Syn-R5B4	4.4	4.7	4.4	4.0	3.3
139 Quest	4.3	4.8	4.5	3.7	4.7
140 Rembrandt	4.3	4.4	4.4	4.1	3.7

(Continued)

Table 3. Tall fescue turf trial, 2008 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----				Brown Patch ² July 2011
	2009-2011 Avg.	2009 Avg.	2010 Avg.	2011 Avg.	
141 PST-Syn-5T8	4.3	4.2	4.4	4.3	3.3
142 PSG RNDR	4.3	4.8	4.4	3.8	4.0
143 03FA-07	4.3	5.3	4.2	3.4	3.7
144 Brockton	4.3	4.8	4.4	3.5	4.0
145 Masterpiece	4.3	4.1	4.6	4.1	4.7
146 Scorpion II	4.3	4.9	4.4	3.5	4.0
147 CE4	4.3	4.9	4.1	3.7	4.7
148 Grande II	4.2	4.5	4.6	3.5	3.3
149 PST-5BAB	4.2	4.6	4.4	3.6	3.3
150 Penn 1901	4.1	4.8	4.3	3.3	4.0
151 Crewcut II	4.1	4.8	4.4	3.1	3.0
152 PSG TTRH	4.1	4.4	4.4	3.4	3.3
153 PSG 8AZRH	4.1	4.9	4.1	3.2	4.3
154 PST-5SIS	4.0	4.0	4.2	3.9	5.3
155 PSG 8GRTR	3.9	4.2	3.9	3.5	3.0
156 Turbo	3.8	4.3	4.1	3.1	4.0
157 Durana	3.8	4.2	4.2	3.1	4.0
158 Regiment II	3.8	3.9	4.0	3.5	3.7
159 PST-5SHZ-04	3.8	4.4	3.9	2.9	4.3
160 Rebel Pro	3.7	4.1	4.2	2.9	3.3
161 PSG TTST	3.7	4.0	3.9	3.1	3.7
162 Arid 3	3.6	3.9	4.2	2.8	3.7
163 Greystone	3.6	3.9	3.8	3.0	3.3
164 Watchdog	3.5	3.7	3.7	3.1	4.0
165 SR 8600	3.5	3.8	3.7	3.0	4.3
166 Prospect	3.4	3.9	3.5	2.9	4.7
167 Rebel 2000	3.3	3.9	3.5	2.6	4.0
168 Regiment II	3.3	3.5	3.3	3.0	4.3
169 Tulsa II	3.1	3.2	3.3	2.8	4.7
170 Grande	2.8	3.1	3.0	2.3	5.3
171 Jaguar 3	2.6	1.8	3.1	2.9	4.0
172 Durango	2.6	2.8	2.6	2.3	3.7
173 Rebel III	2.4	2.7	2.7	1.7	4.7
LSD at 15% =	0.6	0.8	0.7	0.8	1.9

¹9 = best turf quality²9 = least disease

Table 4. Performance of tall fescue cultivars and selections in a turf trial established in September 2009 at Adelphia, NJ.

	Cultivar or Selection	-----Turf Quality ¹ -----			Wear ² July 2011	Wear Recovery ³ Aug. 2011	Wear Quality ⁴ Aug. 2011	Brown Patch ⁵ July 2011
		2010- 2011 Avg.	2010 Avg.	2011 Avg.				
2012	1 B31	6.7	7.0	6.4	6.0	7.3	6.3	5.0
	2 Regenerate	6.6	6.5	6.8	5.0	7.3	7.0	6.0
	3 F9E	6.3	6.7	6.0	5.3	4.7	4.7	4.0
	4 PPG-TF 104	6.2	6.4	6.1	5.7	6.3	6.0	6.0
	5 PPG-TF 102	6.2	6.4	6.0	6.0	6.3	6.0	4.7
	6 PPG-TF 103	6.1	6.5	5.8	5.7	6.3	5.7	5.0
	7 TF 225	6.1	6.4	5.8	5.3	6.7	6.3	5.0
	8 PST-5AWT-08	6.1	6.3	5.8	5.0	4.7	4.7	5.3
	9 T31	6.0	6.1	5.9	5.7	6.7	5.7	5.3
	10 TF 197	6.0	6.1	5.9	4.7	5.0	5.3	4.0
	11 TF 196	6.0	6.1	5.8	4.0	4.7	5.0	4.3
	12 PST-5SRX	6.0	5.9	6.0	3.3	5.7	6.0	5.0
	13 PST-5GRB	5.9	5.7	6.1	8.0	7.3	7.0	4.3
	14 WDA3 Comp	5.9	5.8	6.0	5.0	6.0	5.3	4.7
	15 DP50-9440	5.9	6.2	5.7	4.7	7.0	6.3	4.7
	16 Faith	5.9	5.8	6.0	5.7	5.0	5.7	5.0
	17 Rhambler SRP	5.9	6.1	5.7	4.3	5.7	5.3	4.7
	18 PST-5MCD	5.8	6.0	5.6	5.0	6.3	5.3	5.3
	19 PPG-TF 101	5.8	6.0	5.5	6.0	4.7	4.7	5.7
	20 RAD-TF48R	5.8	6.0	5.5	3.7	5.3	5.3	5.0
	21 Shenandoah Elite	5.7	6.2	5.2	4.7	3.7	3.0	3.3
	22 Talladega	5.6	5.8	5.4	4.7	5.7	5.3	5.3
	23 37-09 Bulk	5.6	6.2	5.0	3.7	4.3	5.3	4.7
	24 07-5 TF Bulk	5.6	6.1	5.1	3.3	5.3	4.7	5.7
	25 PST-Syn-5EV9	5.6	5.7	5.5	6.0	6.3	6.0	4.7

(Continued)

Table 4. Tall fescue turf trial, 2009 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----			Wear ² July 2011	Wear Recovery ³ Aug. 2011	Wear Quality ⁴ Aug. 2011	Brown Patch ⁵ July 2011
		2010- 2011 Avg.	2010 Avg.	2011 Avg.				
2003	26 TF 226	5.6	5.3	5.9	5.3	5.7	5.0	5.0
	27 RAD-TF64	5.6	5.9	5.3	4.3	3.7	4.7	4.3
	28 SCTF3	5.6	5.4	5.7	4.0	5.0	5.0	5.7
	29 WDA1	5.6	5.7	5.4	5.3	5.3	4.3	4.7
	30 TF 199	5.5	5.8	5.2	4.0	5.0	4.0	4.3
	31 DP50-9470	5.5	5.9	5.2	3.0	3.0	3.7	3.7
	32 5-09 TF Bulk	5.5	5.6	5.4	4.0	3.7	4.7	5.0
	33 TF 224	5.5	5.6	5.5	4.0	5.3	5.0	5.7
	34 RAD-TF50R	5.5	6.0	5.0	4.0	4.7	4.0	5.0
	35 SCTF2	5.5	5.5	5.5	3.7	4.7	4.3	4.7
	36 TF 198	5.5	5.8	5.2	5.3	5.3	4.3	5.3
	37 SC-1	5.5	5.8	5.2	4.3	4.0	3.0	4.7
	38 38-09 Bulk	5.5	5.5	5.4	5.3	3.7	4.0	4.7
	39 TF 195	5.5	6.2	4.7	3.3	4.0	3.7	5.3
	40 IS-TF 153	5.5	6.0	4.9	4.3	2.0	3.0	3.7
	41 RAD-TF65	5.5	5.5	5.4	4.7	4.7	4.3	3.7
	42 Penn RK4	5.5	5.5	5.4	3.7	4.7	4.3	4.0
	43 PST-5R05	5.4	5.8	5.1	4.3	5.3	5.3	5.3
	44 PST-5A4S	5.4	5.5	5.3	3.3	4.3	3.3	6.0
	45 RAD-TF46R	5.4	5.6	5.2	4.3	4.0	4.0	4.0
	46 TF 223	5.4	5.5	5.3	4.3	5.7	4.7	4.7
	47 PST-5JAG-08	5.4	5.6	5.2	4.7	6.0	4.3	5.3
	48 FCE3	5.4	5.7	5.0	3.7	4.0	4.3	3.0
	49 Firecracker LS	5.4	5.6	5.1	4.0	4.7	3.0	3.7
	50 Falcon V	5.3	5.2	5.4	4.3	3.0	3.3	5.0

(Continued)

Table 4. Tall fescue turf trial, 2009 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----			Wear ² July 2011	Wear Recovery ³ Aug. 2011	Wear Quality ⁴ Aug. 2011	Brown Patch ⁵ July 2011
		2010- 2011 Avg.	2010 Avg.	2011 Avg.				
204	51 07-9 Bulk	5.3	5.8	4.9	3.3	3.7	4.0	3.7
	52 Shenandoah 3	5.3	5.7	4.8	4.3	2.7	3.3	4.0
	53 Wolfpack II	5.3	5.6	4.9	4.3	3.3	4.0	4.7
	54 PST-5DRP	5.3	5.3	5.2	5.0	5.0	4.0	4.0
	55 Essential	5.2	5.6	4.9	4.7	5.3	3.0	5.7
	56 Gazelle II	5.2	5.4	5.0	4.0	5.7	4.0	4.3
	57 3rd Millennium	5.2	5.3	5.2	4.7	3.7	4.7	4.3
	58 TF-2-07 Bulk	5.2	5.6	4.9	3.7	3.3	4.0	4.7
	59 PST-Syn-5DKB	5.2	5.5	5.0	4.0	5.3	4.0	5.3
	60 Trio	5.2	5.3	5.1	4.7	4.7	4.3	4.0
	61 Cochise IV	5.2	5.6	4.8	3.7	3.7	3.3	4.0
	62 ATF 1236	5.2	5.5	4.9	3.0	3.3	3.7	5.0
	63 7-09 TF Bulk	5.2	5.6	4.7	4.0	5.3	4.0	4.7
	64 Fat Cat	5.2	5.5	4.8	3.7	3.7	3.3	4.7
	65 Dynamic II	5.1	5.3	4.9	5.0	4.3	3.7	4.7
	66 WDA2	5.1	4.6	5.6	4.0	5.7	5.0	5.0
	67 Jamboree	5.1	5.6	4.6	4.0	3.3	3.0	3.3
	68 SR 8550	5.1	5.6	4.5	5.0	4.0	3.7	3.3
	69 PS TF 08-1	5.1	5.5	4.7	4.7	3.7	3.3	4.3
	70 RAD-TF47R	5.1	5.2	5.0	3.3	4.0	5.0	5.0
	71 SCTF1	5.1	5.2	4.9	6.0	5.3	5.3	5.0
	72 Bullseye	5.0	5.3	4.8	4.0	2.0	2.3	4.7
	73 Terrier	5.0	5.4	4.6	4.7	2.7	3.0	4.3
	74 Rebel IV	5.0	5.3	4.7	4.0	4.7	4.3	4.0
	75 TF 219	5.0	5.1	4.9	4.3	5.3	4.0	5.7

(Continued)

Table 4. Tall fescue turf trial, 2009 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----			Wear ² July 2011	Wear Recovery ³ Aug. 2011	Wear Quality ⁴ Aug. 2011	Brown Patch ⁵ July 2011
		2010- 2011 Avg.	2010 Avg.	2011 Avg.				
	76 PST-5FDR	5.0	5.2	4.7	3.7	4.0	5.0	4.0
	77 Monet	5.0	5.1	4.8	4.3	3.0	4.3	4.0
	78 Shenandoah Sport	4.9	5.2	4.7	4.3	5.0	4.3	5.0
	79 Endeavor II	4.9	4.9	5.0	5.7	6.3	4.7	5.3
	80 Rebel Exceda	4.9	5.3	4.5	3.0	3.3	3.3	5.0
	81 DP50-9460	4.9	5.1	4.7	3.7	4.3	3.7	3.7
	82 Rebel Advance	4.9	5.6	4.2	4.7	4.7	3.3	4.0
	83 STR 8BB5	4.9	5.0	4.8	5.0	4.3	3.3	4.3
	84 Guardian 21	4.9	5.2	4.6	3.0	5.0	4.0	4.7
	85 J-140	4.9	5.2	4.6	4.3	4.7	4.0	5.0
	86 PST-5YA	4.9	4.8	5.0	5.3	7.7	5.0	5.7
	87 RAD-TF51R	4.9	5.0	4.8	3.3	1.7	2.7	3.0
	88 8-09 Bulk	4.9	5.1	4.6	4.3	4.0	4.3	4.7
	89 1-09 TF Bulk	4.9	5.1	4.6	4.0	4.0	4.0	4.0
	90 Mustang 4	4.9	4.9	4.8	3.7	3.3	3.7	4.0
	91 PSG 82 BPRH	4.9	5.0	4.8	3.7	4.0	4.0	4.0
	92 Cortez II	4.9	5.3	4.4	3.3	2.7	3.7	4.3
	93 Banshee	4.8	5.1	4.6	3.7	3.3	3.3	3.7
	94 Forte	4.8	5.2	4.4	3.3	4.3	3.0	4.7
	95 Sidewinder	4.8	5.3	4.3	3.3	3.0	3.3	4.3
	96 SR 8650	4.8	5.1	4.5	4.0	3.0	3.7	4.7
	97 Pedigree	4.8	5.2	4.4	4.0	3.0	3.7	3.3
	98 PST-5DVD-07	4.8	4.8	4.7	3.7	4.0	3.7	4.3
	99 Six Point	4.7	5.2	4.3	2.7	2.7	2.7	4.7
	100 PSG 8SP1	4.7	4.8	4.6	4.3	4.0	3.3	5.3

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(Continued)

Table 4. Tall fescue turf trial, 2009 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----			Wear ² July 2011	Wear Recovery ³ Aug. 2011	Wear Quality ⁴ Aug. 2011	Brown Patch ⁵ July 2011
		2010- 2011 Avg.	2010 Avg.	2011 Avg.				
101	Justice	4.7	4.9	4.5	4.3	4.0	3.3	4.7
102	Speedway	4.7	4.9	4.5	4.0	3.3	3.7	4.3
103	PSG 8TTST1	4.7	4.8	4.6	4.7	5.0	4.7	4.7
104	ATF 1301	4.7	5.2	4.1	3.0	4.7	3.3	4.3
105	Spyder LS	4.7	4.8	4.5	2.7	1.7	2.3	4.0
106	Greystone II	4.7	4.7	4.6	3.3	3.0	3.7	4.7
107	Jaguar 4G	4.7	5.2	4.1	4.0	4.3	3.7	5.0
108	PST-5BAB	4.6	4.7	4.5	3.7	5.0	3.3	5.0
109	PSG 85QR	4.6	4.8	4.4	4.3	4.0	3.0	4.0
110	STR 86QR	4.6	5.0	4.2	3.7	4.0	3.7	3.7
111	RNP	4.6	5.2	3.9	3.7	3.7	3.3	3.3
112	Rocket	4.6	5.0	4.1	3.3	4.3	3.0	4.3
113	PST-Syn-5ED	4.6	4.6	4.5	4.7	5.7	5.3	5.3
114	Brockton	4.6	5.1	4.1	2.3	3.3	3.0	5.3
115	Penn 1901	4.6	5.0	4.2	2.3	2.7	3.3	4.0
116	Inferno	4.6	4.8	4.3	3.0	3.7	3.3	5.3
117	9-09 TF Bulk	4.6	4.6	4.6	3.3	4.0	3.7	4.0
118	PST-5V4	4.6	4.7	4.4	4.3	6.0	3.7	4.0
119	Van Gogh	4.6	4.8	4.3	5.0	1.7	2.0	3.3
120	4-09 TF Bulk	4.6	4.6	4.5	3.0	2.0	3.7	4.0
121	Scorpion II	4.5	4.6	4.4	4.0	5.3	4.3	4.3
122	Apache III	4.5	5.0	4.0	4.3	3.3	3.7	4.7
123	Signia	4.5	4.8	4.2	3.3	3.3	4.0	5.3
124	Tulsa Time	4.5	5.0	3.9	3.3	3.3	3.3	4.3
125	Silverstar	4.4	4.7	4.1	3.3	4.3	3.3	4.3

(Continued)

Table 4. Tall fescue turf trial, 2009 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----			Wear ² July 2011	Wear Recovery ³ Aug. 2011	Wear Quality ⁴ Aug. 2011	Brown Patch ⁵ July 2011
		2010- 2011 Avg.	2010 Avg.	2011 Avg.				
207	126 J-130	4.4	4.8	4.0	3.7	3.7	3.7	4.0
	127 Arid 3	4.4	4.7	4.1	3.7	5.3	4.7	5.0
	128 PST-5YMY	4.4	4.0	4.8	5.3	6.3	6.3	5.3
	129 Prospect	4.4	4.8	4.0	2.3	3.7	2.7	5.0
	130 3-09 TF Bulk	4.4	4.7	4.1	3.0	2.3	3.3	4.0
	131 PSG 8GRTR-4	4.4	4.8	4.0	2.3	3.0	3.0	3.3
	132 Ninja 3	4.4	4.8	4.0	3.3	3.3	3.0	3.7
	133 Regiment II	4.4	4.8	4.0	2.3	3.0	4.0	4.3
	134 Grande II	4.4	4.6	4.1	2.7	2.7	3.0	4.3
	135 DaVinci	4.3	4.8	3.9	3.7	5.0	4.0	4.3
	136 TF 217	4.3	4.9	3.8	3.7	3.0	2.0	3.7
	137 Picasso	4.3	4.9	3.7	2.7	2.7	3.3	4.3
	138 PSG 8GRTR Bulk	4.3	4.4	4.2	3.0	5.0	3.7	3.3
	139 Rembrandt	4.3	4.6	4.0	3.3	3.7	3.3	4.3
	140 ATF 1327	4.3	4.5	4.0	3.3	3.3	3.7	4.3
	141 PSG RNDR	4.2	4.5	4.0	3.0	4.3	4.0	4.0
	142 PSG 8GRTR-1	4.2	4.4	4.0	3.0	4.0	4.0	4.0
	143 Crewcut II	4.2	4.5	3.9	3.0	3.7	2.7	3.3
	144 PSG 8GTR-3	4.2	4.4	4.0	3.7	3.3	4.0	4.3
	145 Masterpiece	4.2	4.6	3.7	4.0	3.0	3.3	4.3
146 PSG TTST 2	4.2	4.6	3.7	3.7	5.7	3.7	5.0	
147 PSG TTST	4.2	4.3	4.0	4.3	5.0	4.0	4.0	
148 PSG 8GRTR-6	4.2	4.2	4.1	3.7	3.3	3.3	4.0	
149 Coronado TDH	4.1	4.7	3.5	4.3	3.3	3.7	4.7	
150 2-09 Bulk	4.1	4.5	3.8	3.7	2.3	2.7	4.0	

(Continued)

Table 4. Tall fescue turf trial, 2009 (continued).

	Cultivar or Selection	-----Turf Quality ¹ -----			Wear ² July 2011	Wear Recovery ³ Aug. 2011	Wear Quality ⁴ Aug. 2011	Brown Patch ⁵ July 2011
		2010- 2011 Avg.	2010 Avg.	2011 Avg.				
151	07-4 TF Bulk	4.1	4.1	4.1	4.0	4.0	3.0	2.7
152	TF 215	4.1	4.4	3.8	3.7	3.7	2.7	2.7
153	Rebel Sentry	4.1	4.7	3.5	2.3	3.7	2.7	4.3
154	STR 8GRQR	4.1	4.4	3.7	3.0	3.7	3.0	3.0
155	Rebel Pro	4.1	4.2	3.9	2.7	2.7	4.7	4.7
156	PSG TTRH	4.1	4.1	4.0	4.0	3.0	3.3	4.0
157	PSG 8GRTR-5	4.1	4.0	4.1	3.7	3.7	3.3	3.0
158	Tar Heel II	4.0	4.0	4.0	3.7	4.3	3.3	5.0
159	PSG 8GRTR-2	4.0	3.9	4.0	1.7	3.3	3.7	4.3
160	PSG DDMOR	3.9	4.0	3.9	2.7	2.7	2.7	3.3
161	Jaguar 3	3.9	4.0	3.8	3.3	5.3	4.0	3.7
162	Virtue II	3.9	3.9	3.8	3.3	4.7	3.7	4.7
163	Pixie	3.9	3.8	3.9	2.7	5.3	4.0	4.7
164	Greystone	3.8	4.0	3.6	2.3	3.0	3.7	4.0
165	Watchdog	3.7	3.7	3.6	3.0	4.3	3.3	4.7
166	SR 8600	3.5	3.7	3.3	3.0	4.0	3.0	4.7
167	SR 8500	3.5	3.8	3.2	2.7	3.0	3.7	3.3
168	Grande	3.2	3.5	2.8	3.7	3.0	3.7	3.7
169	Tulsa II	2.6	2.6	2.6	3.3	4.0	3.0	2.7

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(Continued)

Table 4. Tall fescue turf trial, 2009 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----			Wear ² July 2011	Wear Recovery ³ Aug. 2011	Wear Quality ⁴ Aug. 2011	Brown Patch ⁵ July 2011
	2010- 2011 Avg.	2010 Avg.	2011 Avg.				
LSD at 5% =	0.8	1.0	0.7	1.7	2.4	1.6	1.7

¹9 = best turf quality

²9 = least wear

³9 = best wear recovery

⁴9 = best turf quality with wear

⁵9 = least disease

Table 5. Performance of tall fescue cultivars and selections in a turf trial established in September 2009 at Adelphia, NJ.

Cultivar or Selection	-----Turf Quality ¹ -----			Brown Patch ² Avg. 2010	Dollar Spot ² Aug. 2011
	2010- 2011 Avg.	2010 Avg.	2011 Avg.		
1 Regenerate	6.8	6.8	6.8	6.3	4.3
2 W41	6.6	6.5	6.6	5.2	7.0
3 W43	6.6	6.8	6.3	5.7	6.7
4 W42	6.4	6.7	6.1	6.3	5.3
5 U43	6.4	6.8	6.0	5.7	5.7
6 W44	6.3	6.4	6.2	5.0	4.7
7 Falcon V	6.2	6.4	6.1	5.3	3.3
8 U42	6.2	6.3	6.1	6.7	4.7
9 W45	6.2	6.3	6.1	6.2	5.3
10 LS 1200	6.2	6.3	6.1	5.0	3.7
11 U41	6.2	6.3	6.0	5.7	6.3
12 U45	6.2	6.1	6.2	6.5	5.7
13 Faith	6.0	6.1	5.9	5.3	5.0
14 Cochise IV	6.0	6.0	5.9	5.0	4.0
15 U44	6.0	6.1	5.8	6.0	4.7
16 POM	5.7	6.2	5.2	4.7	2.3
17 Shenandoah Elite	5.7	5.7	5.7	5.0	5.3
18 3rd Millennium SRP	5.7	6.1	5.3	4.7	4.3
19 PSM-6351	5.7	6.0	5.4	4.2	2.3
20 Bullseye	5.5	6.0	5.1	4.7	3.0
21 Spider LS	5.5	5.9	5.0	4.5	3.0
22 Van Gogh	5.4	5.9	4.9	5.2	2.3
23 FCE3	5.4	5.7	5.0	4.0	2.0
24 Shenandoah III	5.3	5.3	5.2	4.3	4.0
25 Monet	5.2	5.3	5.1	4.8	2.0
26 Talladega	5.2	5.5	4.8	5.3	3.3
27 Firecracker	5.1	5.0	5.2	4.5	3.7
28 Mustang 4	5.0	5.2	4.8	4.2	4.7
29 Inferno	4.7	5.2	4.1	4.3	2.3
30 Rebel Advance	4.6	5.0	4.2	4.2	2.0
31 Falcon IV	4.2	4.4	3.9	4.8	2.7
32 Picasso	3.9	4.1	3.7	4.2	2.3
33 Rembrandt	3.9	4.3	3.4	4.3	2.3
34 Jaguar 3	3.3	3.7	2.9	4.0	2.0
35 Pixie	3.1	3.4	2.7	3.7	2.3

(Continued)

Table 5. Tall fescue turf trial, 2009 (continued).

Cultivar or Selection	-----Turf Quality ¹ -----			Brown Patch ² Avg. 2010	Dollar Spot ² Aug. 2011
	2010-2011 Avg.	2010 Avg.	2011 Avg.		
LSD at 15% =	0.5	0.6	0.7	0.9	1.9

¹9 = best turf quality

²9 = least disease

Table 6. Performance of tall fescue cultivars and selections in a turf trial seeded in September 2010 at Adelphia, NJ.

Cultivar or Selection	Turf Quality ¹ 2011 Avg.	Establishment ² Sept. 2010	Brown Patch ³ July 2010
1 CCR2	7.1	5.7	8.0
2 CCR1	6.9	6.0	7.0
3 RAD-TF69	6.9	4.0	7.3
4 RZI	6.8	5.7	6.7
5 WE2	6.8	5.0	7.3
6 WE1	6.8	5.7	6.7
7 Regenerate	6.5	6.0	5.7
8 RZ2	6.4	5.0	6.3
9 Faith	6.4	6.0	5.0
10 PPG-TF 102	6.3	5.7	6.3
11 PPG-TF 105	6.3	4.0	7.3
12 PPG-TF 116	6.3	4.7	5.3
13 PPG-TF 106	6.2	4.3	5.3
14 B23	6.2	5.7	6.0
15 RAD-TF75	6.1	4.7	5.7
16 LSD	6.1	6.0	6.3
17 SCTF 3	6.0	6.0	5.0
18 Finelawn Xpress	6.0	6.3	5.0
19 Falcon V	6.0	6.0	6.0
20 Wolfpack II	6.0	5.7	4.7
21 PST-Syn-5T20	5.9	4.7	5.7
22 RAD-TF74	5.9	4.7	4.7
23 RAD-TF77	5.9	5.0	5.0
24 PST-Syn-5BPO	5.8	4.3	6.0
25 SCTF 1	5.8	6.0	5.7
26 Jamboree	5.8	5.7	4.3
27 Essential	5.8	5.7	5.0
28 Shenandoah Elite	5.8	5.7	5.7
29 SCTF 4	5.8	6.0	5.0
30 13-10 FC Bulk	5.8	3.7	5.3
31 TPC	5.8	5.7	5.3
32 Millennium SRP	5.8	6.3	5.3
33 Traverse SRP	5.8	5.7	6.0
34 Mustang 4	5.7	5.3	6.0
35 Firenze	5.7	6.0	5.7

(Continued)

Table 6. Tall fescue turf trial, 2010 (continued).

Cultivar or Selection	Turf Quality ¹ 2011 Avg.	Establishment ² Sept. 2010	Brown Patch ³ July 2010
36 7-10 FC-5	5.6	3.7	4.3
37 Rhambler SRP	5.6	5.3	5.3
38 Fat Cat	5.6	5.3	5.3
39 FSD	5.6	6.7	5.7
40 Rebel Xtreme	5.6	6.0	6.0
41 SCTF 5	5.6	6.0	6.0
42 Van Gogh	5.5	6.7	4.7
43 PPG-TF 115	5.5	4.3	6.0
44 10-10 FC-8	5.5	4.0	5.0
45 Terrier	5.5	4.7	5.0
46 Garrison	5.5	6.0	5.0
47 PPG-TF 117	5.5	5.0	6.0
48 GSD	5.5	6.0	5.0
49 RAD-TF76	5.5	4.7	5.0
50 3rd Millennium	5.5	7.0	5.0
51 Tonto TF28-C	5.4	5.7	5.7
52 PPG-TF 101	5.4	5.0	5.0
53 9-10 FC-1	5.4	3.3	5.0
54 Umbrella	5.4	5.0	5.0
55 Shenandoah III	5.4	5.7	5.7
56 1-10 Fa Bulk	5.4	5.0	4.3
57 10-10 FC-5	5.4	4.3	5.0
58 Greenbrooks	5.4	6.0	5.0
59 DaVinci	5.4	5.7	4.7
60 Penn RK4	5.4	5.7	5.0
61 10-10 FC-3	5.3	3.3	4.0
62 SCTF 6	5.3	5.3	5.0
63 SR 8650	5.3	4.7	5.7
64 Braveheart	5.3	5.0	4.7
65 Pedigree	5.3	5.3	4.7
66 7-10 FC-2	5.2	4.0	5.7
67 7-10 FC-6	5.2	3.7	5.3
68 PST-Syn-5CAM	5.2	4.3	5.0
69 Speedway	5.2	6.3	4.7
70 Cayenne	5.2	5.3	5.7

(Continued)

Table 6. Tall fescue turf trial, 2010 (continued).

Cultivar or Selection	Turf Quality ¹ 2011 Avg.	Establishment ² Sept. 2010	Brown Patch ³ July 2010
71 PST-Syn-5RTY	5.2	4.0	4.7
72 Rocket	5.2	6.0	5.0
73 Monet	5.1	6.3	5.0
74 10-10 FC-1	5.1	5.0	4.7
75 2-10 Fa Bulk	5.0	4.0	4.7
76 5-10 Fa Bulk	5.0	4.0	4.7
77 7-10 FC-3	5.0	4.3	4.7
78 10-10 FC-4	5.0	4.3	4.3
79 10-10 FC-7	5.0	4.3	5.0
80 Cannavaro	5.0	5.0	5.3
81 Six Point	5.0	6.3	4.3
82 Justice	5.0	6.0	5.0
83 IRN2	5.0	5.0	5.0
84 FCE3	5.0	5.3	4.7
85 10-10 Bulk	4.9	4.7	4.3
86 10-10 FC-2	4.9	3.7	4.3
87 Dynamic II	4.9	6.0	4.0
88 3-10 Fa Bulk	4.9	4.0	4.0
89 Falcon IV	4.9	5.3	3.7
90 Rebel Advance	4.9	6.0	5.0
91 7-10 FC-7	4.9	3.7	5.0
92 Gazelle II	4.9	6.3	3.3
93 7-10 FC-4	4.8	3.7	4.7
94 10-10 FC-6	4.8	3.3	4.0
95 CE-1	4.8	6.3	4.3
96 Virtue II	4.8	5.3	5.0
97 9-10 FC-3	4.8	4.0	4.3
98 PST-Syn-5SDS	4.8	4.0	5.7
99 Dorado	4.8	5.3	3.7
100 RNP	4.8	5.0	4.0
101 Dynamic II	4.8	6.7	5.0
102 ATF-1334	4.8	6.0	3.7
103 Inferno	4.7	5.7	4.0
104 Rebel IV	4.7	6.3	5.0
105 Penn 1901	4.7	6.7	5.0

(Continued)

Table 6. Tall fescue turf trial, 2010 (continued).

Cultivar or Selection	Turf Quality ¹ 2011 Avg.	Establishment ² Sept. 2010	Brown Patch ³ July 2010
106 7-10 FC Bulk	4.7	2.7	5.7
107 Endeavor II	4.7	7.0	4.3
108 Forte	4.7	6.0	4.7
109 Banshee	4.7	5.7	4.7
110 IRN1	4.7	5.0	4.7
111 Scorpion II	4.7	5.3	5.0
112 ATF-1236	4.6	6.3	4.3
113 Rebel Exeda	4.6	5.7	4.7
114 7-10 FC-1	4.6	4.0	4.7
115 Coranado TDH	4.6	6.3	5.0
116 ATF 1327	4.6	6.0	3.7
117 9-10 FC Bulk	4.6	4.3	3.3
118 9-10 FC-8	4.6	4.3	5.0
119 Stingray	4.5	6.3	5.0
120 9-10 FC-6	4.5	4.0	4.3
121 IRB2	4.5	5.3	4.0
122 Rebel Sentry	4.5	6.3	4.0
123 Tar Heel II	4.5	6.3	5.0
124 Jaguar 4G	4.4	6.0	3.7
125 N-96	4.4	3.3	4.3
126 SR 8600	4.4	4.0	5.0
127 Rembrandt	4.4	6.0	4.7
128 Greenkeeper	4.4	6.3	3.0
129 Montana TF19	4.4	6.0	3.3
130 Signia	4.4	6.7	4.7
131 Shenandoah Sport	4.3	5.3	5.0
132 Cezanne RZ	4.3	6.0	5.0
133 Greystone II	4.3	7.0	4.0
134 IRB1	4.2	6.0	3.3
135 Arid 3	4.2	6.7	4.7
136 PSG 8G16-43	4.2	4.7	4.0
137 Picasso	4.1	7.0	3.3
138 2nd Millennium	4.1	7.0	4.7
139 Dakota	4.1	3.3	4.3
140 Brockton	4.1	6.0	4.0

(Continued)

Table 6. Tall fescue turf trial, 2010 (continued).

Cultivar or Selection	Turf Quality ¹ 2011 Avg.	Establishment ² Sept. 2010	Brown Patch ³ July 2010
141 Rebel Pro	4.1	5.7	4.7
142 SCTF 2	4.1	5.7	4.3
143 Masterpiece	4.1	5.0	3.7
144 Greystone	4.1	6.0	2.3
145 9-10 FC-5	4.1	4.7	4.3
146 Pixie	4.0	6.3	3.7
147 Millennium	4.0	6.0	4.0
148 Prospect	3.8	6.3	4.0
149 K-31	1.1	7.3	3.3
150 Atlas	1.0	8.3	3.7
LSD at 5% =	0.8	1.1	1.8

¹9 = best turf quality

²9 = quickest establishment

³9 = least disease

Table 7. Yearly nitrogen (N) applied and mowing height (Ht) on tall fescue tests established at Adelphia, NJ.

	2006		2007		2008		2009		2010		2011	
	N ¹	Ht ²	N	Ht	N	Ht	N	Ht	N	Ht	N	Ht
Table 1 (2006).....	3.5	1.5	3.3	1.5	3.25	1.5	2.25	1.5	2.25	1.5	1.45	1.5
Table 2 (2007).....			4.0	1.5	3.50	1.5	2.25	1.5	2.25	1.5	1.50	1.5
Table 3 (2008).....					3.50	1.5	2.25	1.5	2.25	1.5	3.50	1.5
Table 4 (2009).....							3.00	1.5	3.00	1.5	4.00	1.5
Table 5 (2009).....							3.00	1.5	3.00	1.5	3.00	1.5
Table 6 (2010).....									3.00	1.5	3.00	1.5

¹Annual N applied (lb/1000 ft²)

²Mowing height in inches