

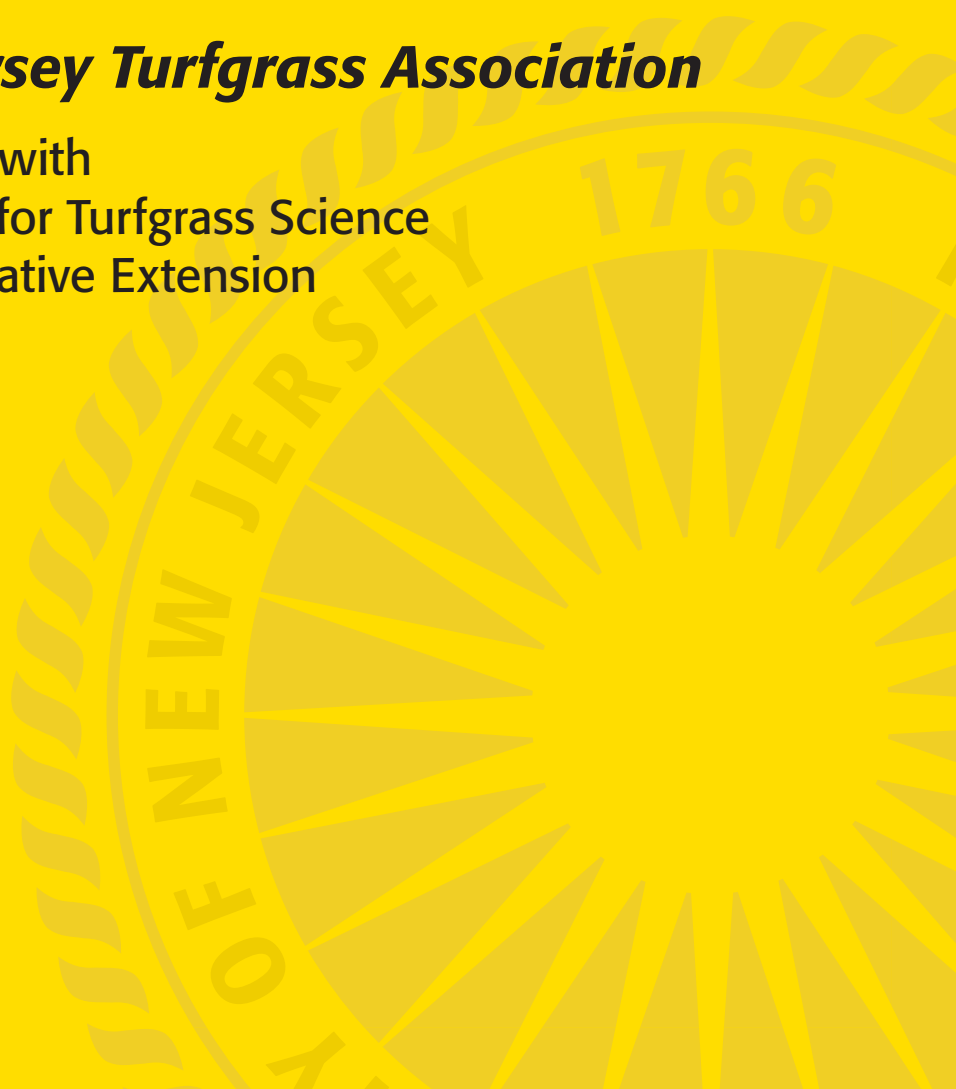
RUTGERS

New Jersey Agricultural
Experiment Station

2006 Turfgrass Proceedings

The New Jersey Turfgrass Association

In Cooperation with
Rutgers Center for Turfgrass Science
Rutgers Cooperative Extension



2006 RUTGERS TURFGRASS PROCEEDINGS

of the

New Jersey Turfgrass Expo December 5-7, 2006 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 2006 New Jersey Turfgrass Expo. Publication of these lectures provides a readily avail-

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

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

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

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

ASSESSMENT OF KENTUCKY BLUEGRASS SUBJECTED TO FALL-APPLIED WEAR

Bradley S. Park, James A. Murphy, Tracy J. Lawson, James E. Devaney, William K. Dickson, Joseph B. Clark, Stacy A. Bonos, and William A. Meyer¹

Kentucky bluegrass (*Poa pratensis* L.) is widely adapted throughout the cool-humid and transitional climates of the world (Schery, 1965). While Kentucky bluegrass is commonly used on lawns, parks, cemeteries, institutional grounds, and other comparable general purpose lawn areas, its vigorous rhizome development ensures that Kentucky bluegrass is well adapted for use on athletic fields and other heavily used playfields (Beard, 1973). Puhalla et al. (1999) notes that Kentucky bluegrass and perennial ryegrass (*Lolium perenne* L.) are the most commonly used turfgrass species in athletic fields grown in cool-season climates.

Foot traffic on turfgrasses can result in major damage to turf sites, especially on high use recreational areas such as athletic fields (Carrow and Petrovic, 1992). Minner et al. (1993) notes that traffic is the most frequent and damaging stress to turfgrasses used as a sports turf.

Turfgrass traffic tolerance has been the focus of many research efforts over the past three decades (Hacker, 1987; Minner et al., 1993; Shearman and Beard, 1975; and Taivalmaa et al., 1998). Traffic can result in four stresses: wear, soil compaction, divoting, and soil displacement (Beard, 1973). Wear injury affects aboveground plant parts and is defined as the immediate result of crushing, tearing, and shearing actions of foot and vehicular traffic (Beard et al. 1974; Shearman, 1988).

Many traffic simulators have been developed (Bourgoin and Mansat, 1982; Cockerham and Brinkman, 1989; Evans, 1988; Shearman et al., 1974; Younger, 1961). Most of the simulators developed mimic the effects of trampling, which imparts wear and compaction to soil (Bourgoin and Mansat, 1982;

Cockerham and Brinkman, 1989; Evans, 1988; Taivalmaa et al., 1998). Shearman and co-workers (1974) developed a wear simulator for small plot evaluations that resulted in wear injury without soil compaction. Although very effective, these wear/traffic simulators were not designed to travel across large numbers of turf plots in a relatively short period of time.

In 2001, Bonos et al. developed a wear simulator that quickly and uniformly applies wear to a large number of turfgrass evaluation plots. Turfgrass species differ greatly in their ability to withstand the abrasion and compaction of traffic (Gaussoin, 1994). Wear tolerance of turfgrass species and mixtures has been evaluated by a number of researchers (Bourgoin and Mansat, 1982; Canaway, 1981; Fushtey et al., 1982; Taivalmaa et al., 1998). Evaluation of cultivars within a particular species has also been conducted (Bonos, et al. 2001; Evans, 1988; Minner et al., 1993; Wood and Law, 1972). Recently, several studies have assessed the wear tolerance of newer Kentucky bluegrass cultivars (Brosnan et al, 2005; Lathrop et. al, 2002; Park et. al, 2003; and Park et. al, 2005); however, these researchers have not examined the effect of time of year on the wear tolerance of Kentucky bluegrass. Kentucky bluegrass cultivar recommendations are needed for athletic fields that receive play at a specific time of the year (spring, summer, or fall).

The objective of this study was to assess the wear tolerance and recovery of Kentucky cultivars and selections comprising the 2005 National Turfgrass Evaluation Program Kentucky Bluegrass Test during the fall. The impact of soil compaction, soil displacement, and divoting on Kentucky bluegrass were not assessed in this study.

¹Sports Turf Education and Research Coordinator, Extension Specialist in Turfgrass Management, Principal Laboratory Technician, Graduate Assistant, Turfgrass Research Farm Supervisor, Principle Laboratory Technician, Assistant Professor, and Research Professor, respectively, New Jersey Agricultural Experiment Station, School of Environmental and Biological Sciences, Rutgers, The State University of New Jersey, New Brunswick, NJ 08901-8520.

MATERIALS AND METHODS

Evaluation Trial

Cultivars and experimental selections of Kentucky bluegrass were evaluated during October and November 2006 (Tables 1 to 3). The evaluation trial included entries of the 2005 National Turfgrass Evaluation Program (NTEP) Kentucky Bluegrass Trial, established in September 2005. The test was located at the Horticultural Research Farm II located in North Brunswick, NJ. Plots were arranged in a randomized complete block design with three replications.

The soil at the test location was a well-drained Nixon sandy loam. Soil test results from August 2006 indicated that the soil pH was 6.1, soil phosphorous was 277 lb/acre, and soil potassium was 231 lb/acre. The test was mowed to a height of 1.5 inch 2 to 3 times a week depending on growth rate and was irrigated as necessary to avoid drought stress. In 2006, the total annual nitrogen (N) applied was 4.2 lb N/1000 ft², total potassium (as K₂O) applied was 1.3 lb/1000 ft², and gypsum was applied in October at a rate of 14 lb/1000 ft² based on soil testing.

Wear Simulation

The wear simulator was a modified version of the M24C5A Sweepster described by Bonos et al. (2001). The modified simulator permits control of both operating speed and paddle rpm. The simulator was operated at a ground speed of 2.5 mph and 250 rpm for the paddles.

Wear treatments were applied on 3 and 9 October 2006 to one-third of each plot. Twelve passes were made on 3 October and six passes were made on 9 October; every other pass was made in the opposing direction of the previous pass.

Turfgrass Evaluation

Each plot was 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/or diseases). Establishment, spring green-up, and color were also rated as separate characteristics. A 1 to 9 scale was utilized for all ratings, where 9 represents the best turf characteristic.

Plots were rated for percent turfgrass cover (or fullness of turfgrass cover) immediately before the initiation of wear using a 0 to 100% scale, where 0 = absence of a turfgrass canopy and 100 = full cover. Fullness of cover was rated after 6, 12, and 18 passes of the wear simulator to assess wear tolerance. Fullness of cover was also rated at 15, 22, and 42 days after wear (DAW) to assess turfgrass recovery. Turfgrass bruising injury was assessed at 15, 22, and 42 DAW on a 1 to 9 scale, where 9 = no discoloration (bruising). All data were subjected to analysis of variance, and means were separated using the Fisher's protected least significant difference (LSD) test.

RESULTS AND DISCUSSION

Non-Wear Turfgrass Assessment

Kentucky bluegrass cultivars and selections with the highest average turfgrass quality in 2006 included Midnight II, Everest, Excursion, Midnight, J-2870, Nu Destiny, Beyond, J-1326, Impact, J-2399, Bd 03-159, Everglade, Award, J-1466, J-2404, J-2024, NA-3248, Blueberry, Bluestone, MSP 3723, Bewitched, J-1334, A00-1400, and CP 76-9068 (Table 1). The poorest turf quality was exhibited by Kenblue, Reveille, and DLF 76-9075.

Turfgrass establishment was rated 26 days after seeding. The cultivars and selections with the most rapid establishment were POPR 04594, Bd 03-84, and A96-1368 (Table 1). Conversely, those that were slowest to establish included Skye, Touche, Barrister, A95-410, RAD-0AN64, Avid, STR 2485, BAR VV 0709, AKB449, NA-3257, Reveille, NA-3259, CPP 822, RAD-762, A98-689, Corsair, Dynamo, RAD-504, Pinot, Arrowhead, and Princeton 105.

Early green-up (in April 2006) was evident for BAR VV 0709, Kenblue, BAR VK 0710, Mystere, H94-305, Bd 95-1930, PST-1A1-899, RAD-343 (Table 1). For the entries Bluestone, Midnight, NuGlade, Impact, Everglade, Award, Everest, Beyond, Nu Destiny, Excursion, Midnight II, Rhythm, and Barrister, this characteristic was poor. These cultivars were identified by Shortell et al. (2004) as Compact-Midnight Type cultivars. Bonos et al. (2003) reported that Kentucky bluegrass cultivars comprising the Compact-Midnight Type have long winter dormancy and display a purple and/or straw coloration during prolonged dormant periods. Other cultivars and selections exhibiting poor green-up in this trial included

Zinfandel, 1QG-38, Emblem, J-1334, A00-1400, Baron, A01-299, A00-247, Dynamo, J-1466, Bd 99-2103, J-2502, Prosperity, Arrowhead, J-2870, J-2399, J-2024, Bandera, J-2404, J-1326, and SWAG514.

Assessment of Turfgrasses Subjected to Wear

Wear tolerance (average fullness of turfgrass cover) for Harmonie, CP 76-9068, Julia, Midnight II, CPP 821, Bariris, CPP 822, Everest, Prosperity, Excursion, Midnight, J-1326, NA 3257, and NA 3248 was greatest of the entries in Table 2. Harmonie, CP 76-9068, CPP 821, and CPP 822 were the densest in the trial when not subjected to wear. The performance of Julia, Bariris, Midnight II, and Excursion was consistent with a previous traffic test (Park et al., 2003).

DLF 76-9075 was the lowest ranked selection in the trial for wear tolerance (Table 2). DLF 76-9075 and Kenblue had the lowest rating when not subjected to wear (Table 1). The second lowest statistical group for wear tolerance included Kenblue, PSG 366, A95-410, RAD-504, NA-3259, Starburst, Reveille, A99-3122, and Corsair. Park et al. (2003) reported Kenblue as a poor performing cultivar under simulated wear and compaction.

Bariris, Julia, Harmonie, Excursion, Everest, Midnight II, Beyond, Midnight, Impact, Rhythm, CP 76-9068, J-1326, J-1334, CPP 822, J-2870, J-2024, Barrister, CPP 821, NA-3248, J-1466, Award, Everglade, J-2399, J-2404, NA-3257, and Nu Destiny had the best recovery after wear (Table 3). Excursion, Everest, Midnight II, Beyond, Midnight, Impact, Rhythm, Barrister, Award, Everglade, and Nu Destiny were identified as Compact-Midnight Type cultivars, and Julia was classified as a Julia Type cultivar (Shortell et al. 2004). Park et al. (2005) reported that Compact-Midnight and Julia Type cultivars were among the best performing types under simulated wear and compaction.

DLF 76-9075 had the poorest recovery (average fullness of cover) among all cultivars and selections (Table 3). DLF 76-9075 and Kenblue were the lowest ranked cultivars for recovery when fullness of cover was assessed 42 DAW. Harmonie, CPP 822, CP 76-9068, and CP 821 were among the most wear tolerant cultivars and selections; however, these entries exhibited greater bruising injury (Tables 2 and 3). These entries were delayed in growing out of this bruising injury.

CONCLUSIONS

Various Kentucky bluegrass cultivars and selections had excellent wear tolerance (fullness of cover) after simulated wear in the fall of 2006. Many of these Kentucky bluegrass cultivars have displayed superior performance under simulated wear and compaction in previous traffic trials. These cultivars and selections should be included in seed blends and mixes for sports fields used during fall. Several cultivars and selections that had very good wear tolerance were severely bruised. This bruising characteristic may be unacceptable. Thus, turf managers may need to consider both fullness of cover and bruising data as part of the cultivar selection process.

REFERENCES

- Bead, J. B. 1973. Turfgrass: Science and culture. Prentice-Hall, Englewood Cliffs, NJ.
- Beard, J. B., J. F. Wilkinson, and R. C. Shearman. 1974. Turfgrass wear tolerance: The anatomical and physiological basis. Proc. 44th Ann. Michigan Turf. Conf., East Lansing, 3:1-2.
- Bonos, S. A., E. Watkins, J. A. Honig, M. Sosa, T. J. Molnar, J. A. Murphy, and W. A. Meyer. 2001. Breeding cool-season turfgrasses for wear tolerance using a wear simulator. Int. Turfgrass Society Res. J. 9:137-145.
- Bonos, S. A., W. K. Dickson, B. S. Park, E. Watkins, R. F. Bara, D. A. Smith, M. M. Wilson, T. J. Lawson, J. Clark, J. A. Murphy, C. R. Funk, and W. A. Meyer. 2003. Performance of Kentucky bluegrass cultivars and selections in New Jersey turf trials. Rutgers Turfgrass Proc. 35:45-111.
- Bourgoin, B., and P. Mansat. 1982. Artificial trampling and players traffic on turfgrass mixtures. Rasen-Turf-Gazon 4:72-79.
- Brosnan, J. T., J. S. Ebdon, and W. M. Dest. 2005. Characteristics in diverse wear tolerant genotypes of Kentucky bluegrass. Crop Sci. 45:1917-1926.
- Canaway, P. M. 1981. Wear tolerance of turfgrass species. J. Sports Turf Res. Inst. 57:108-121.

- Carrow, R. N., and A. M. Petrovic. 1992. Effects of traffic on turfgrass. Pages 285-330 in: D. V. Waddington, R. N. Carrow, and R. C. Shearman, eds. *Turfgrass*. Agronomy Monogr. 32. ASA, CSSA, and SSSA, Madison, WI.
- Cockerham, S. T. and D. J. Brinkman. 1989. A simulator for cleated-shoe sports traffic on turfgrass research plots. *California Turfgrass Culture* 39:9-10.
- Evans, G. E. 1988. Tolerance of selected bluegrass and fescue taxa to simulate human foot traffic. *J. Environ. Hort.* 6:10-14.
- Fushtey, S. G., D. K. Taylor, and D. Fairey. 1982. The effect of wear stress on survival of turfgrass in pure stands and in mixtures. *Can J. Plant Sci.* 63:317-322.
- Gaussion, R. E. 1994. Choosing traffic-tolerant turfgrass varieties. *Sports Turf* 10:25-26.
- Hacker, J. W. 1987. Wear tolerance in amenity and sports turf: A review 1980-85. *Acta Horticulturae* 195:35-41.
- Lathrop, A. D., A. S. McNitt, and D. M. Petrunak. 2002. Divoting potential of different varieties of Kentucky bluegrass grown on sand maintained at three mowing heights and three wear levels. Pages 131-132 in: A. Lathrop, ed. 2002 *Turfgrass Research Report*. The Pennsylvania State University, University Park, PA.
- Minner, D. D, J. H. Dunn, S. S. Burghrara, and B. S. Fresenburg. 1993. Traffic tolerance among cultivars of Kentucky bluegrass, tall fescue, and perennial ryegrass. *Int. Turfgrass Society Research J.* 7:687-694.
- Park, B. S., J. A. Murphy, W. A. Meyer, S. A. Bonos, J. den Haan, D. A. Smith, and T. J. Lawson. 2003. Traffic tolerance of cool-season turfgrasses. *Rutgers Turfgrass Proc.* 35:199-219.
- Park, B. S., J. A. Murphy, W. A. Meyer, S. A. Bonos, J. den Haan, D. A. Smith, and T. J. Lawson. 2005. Performance of Kentucky bluegrass within phenotypic classifications as affected by traffic. *Int. Turfgrass Society Res. J.* 10:618-626.
- Puhalla, J., J. Krans, and M. Goatley. 1999. *Sports Fields: A manual for design construction and maintenance*. Wiley and Sons, Inc., Hoboken, NJ.
- Schery, R. W. 1965. This remarkable Kentucky bluegrass. *Annals of the Missouri Botanical Garden* 52:444-451.
- Shearman, R. C. 1988. Improving sports turf wear tolerance. *Proc. 58th Ann. Michigan Turf. Conf.* 17:153-155.
- Shearman, R. C., and J. B. Beard. 1975. Turfgrass wear tolerance mechanisms: I. Wear tolerance of seven turfgrass species and quantitative methods for determining turfgrass wear injury. *Agron. J.* 67:208-211.
- Shearman, R. C., J. B. Beard, C. M. Hansen, and R. Apacla. 1974. Turfgrass wear simulator for small plot investigations. *Agron. J.* 66:332-334.
- Shortell, R. R., W. K. Dickson, B. S. Park, R. F. Bara, D. A. Smith, M. M. Wilson, T. J. Lawson, J. Clark, S. A. Bonos, J. A. Murphy, C. R. Funk, and W. A. Meyer. 2004. Performance of Kentucky bluegrass cultivars and selections in New Jersey turf trials. *Rutgers Turfgrass Proc.* 36:49-118.
- Taivalmaa, S. L., H. Talvitie, L. Jauhiainen, and O. Niemelainen. 1998. Influence of wear-stress on turfgrass species and cultivars in Finland. *J. Turfgrass Sci.* 74:52-62.
- Wood, G. M., and A. G. Law. 1972. Evaluating Kentucky bluegrass cultivars for wear resistance. Page 65 in 1972 *Agronomy abstracts*. ASA, Madison, WI.
- Younger, V. B. 1961. Accelerated wear tests on turfgrasses. *Agron. J.* 53:217-218.

Table 1. Performance of Kentucky bluegrass cultivars and selections in a turf trial seeded in September 2005 at North Brunswick, NJ. (Includes all entries of the 2005 National Turfgrass Evaluation Program (NTEP) Kentucky bluegrass test.)

	Cultivar or Selection	Turf Quality ¹										Establishment ² Oct. 5 2005	Spring Green-up ³ April 10 2006	Color ⁴ Sept. 29 2006	
		2006 Avg.	May 2006	June 2006	July 2006	Aug. 2006	Sept. 2006	Oct. 2006	2006	2006	2006				
1	Midnight II	7.7	7.7	7.7	8.0	8.0	8.0	7.3	7.3	7.3	7.3	7.3	6.0	1.0	6.7
2	Everest	7.6	7.0	7.3	8.0	8.0	8.3	7.7	8.3	8.3	7.0	7.0	5.3	1.3	7.0
3	Excursion	7.6	7.7	6.7	7.3	7.3	8.0	7.0	8.0	8.0	8.7	8.7	6.3	1.0	6.7
4	Midnight	7.5	7.7	8.3	7.7	7.7	8.0	6.3	8.0	8.0	7.3	7.3	6.7	2.0	7.3
5	J-2870	7.5	7.7	8.0	7.7	7.7	7.3	6.0	7.3	7.3	8.3	8.3	6.7	1.7	6.0
6	Nu Destiny	7.4	7.3	6.7	8.0	8.0	7.0	7.3	7.0	7.0	8.0	8.0	6.7	1.0	6.3
7	Beyond	7.3	7.7	7.7	7.0	7.0	7.3	7.0	7.3	7.3	7.3	7.3	4.7	1.3	6.7
8	J-1326	7.3	6.7	7.7	7.0	7.0	8.0	6.0	8.0	8.3	8.3	8.3	5.0	1.3	6.3
9	Impact	7.3	7.0	7.0	7.7	7.7	7.7	7.0	7.7	7.3	7.3	7.3	5.7	1.7	6.7
10	J-2399	7.2	7.3	8.0	7.3	7.3	7.0	6.3	7.0	7.0	7.0	7.0	6.0	1.7	6.3
11	Bd 03-159	7.1	7.7	8.0	6.7	6.7	6.3	6.3	6.3	8.0	8.0	8.0	6.3	4.0	6.0
12	Everglade	7.1	7.0	7.0	8.0	8.0	7.7	5.7	7.7	7.3	7.3	7.3	6.3	1.3	5.7
13	Award	7.1	7.0	7.0	7.7	7.7	7.3	6.0	7.3	7.7	7.7	7.7	5.7	1.3	6.7
14	J-1466	7.1	7.3	6.7	6.7	6.7	8.0	6.7	8.0	7.0	7.0	7.0	6.3	2.0	5.7
15	J-2404	7.1	6.7	7.0	7.3	7.3	7.7	6.0	7.7	7.7	7.7	7.7	5.7	1.3	6.7
16	J-2024	7.0	6.7	7.3	7.3	7.3	6.7	6.3	6.7	7.7	7.7	7.7	4.3	1.7	7.0
17	NA-3248	7.0	6.7	5.7	5.7	5.7	7.7	8.0	7.7	8.3	8.3	8.3	4.0	6.3	6.0
18	Blueberry	6.9	6.3	7.0	6.3	6.3	7.3	6.7	7.3	8.0	8.0	8.0	4.3	4.3	9.0
19	Bluestone	6.8	6.7	6.3	7.0	7.0	7.7	6.0	7.7	7.3	7.3	7.3	5.7	2.3	6.7
20	MSP 3723	6.7	6.3	6.3	5.3	5.3	7.7	7.3	7.7	7.3	7.3	7.3	5.0	3.7	5.0
21	Bewitched	6.7	6.0	6.7	5.7	5.7	5.7	8.0	5.7	8.3	8.3	8.3	4.0	3.3	8.0
22	J-1334	6.7	5.7	7.3	7.0	7.0	7.3	6.0	7.3	7.0	7.0	7.0	4.7	2.3	6.3
23	A00-1400	6.7	7.0	8.7	5.7	5.7	4.7	7.0	4.7	7.0	7.0	7.0	4.7	2.3	8.0
24	CP 76-9068	6.7	7.3	6.3	5.0	5.0	5.0	8.7	5.0	8.7	7.7	7.7	5.7	4.0	5.7
25	Prosperity	6.6	6.0	5.3	5.7	5.7	7.7	8.0	7.7	8.0	7.0	7.0	3.3	2.0	8.3

(Continued)

Table 1 (continued).

Cultivar or Selection	2006 Avg.	Turf Quality ¹							Oct. 2006	Establishment ² Oct. 5 2005	Spring Green-up ³ April 10 2006	Color ⁴ Sept. 29 2006
		May 2006	June 2006	July 2006	Aug. 2006	Sept. 2006	Oct. 2006					
26 J-2502	6.5	6.0	6.0	7.0	7.0	6.0	7.0	6.0	7.0	4.7	2.0	7.7
27 J-3429	6.5	6.7	6.7	6.3	6.3	6.0	6.7	6.0	6.7	5.0	3.7	8.7
28 NA-3257	6.4	5.3	4.7	6.3	6.3	7.3	7.3	7.3	7.7	2.0	4.7	8.7
29 MSP 3724	6.4	5.7	6.7	5.0	5.0	8.0	6.3	6.7	6.3	3.0	3.7	5.3
30 Belissimo	6.4	6.7	6.7	4.7	4.7	7.7	7.0	5.7	7.0	6.3	3.0	4.7
31 A99-523	6.4	6.7	6.3	5.0	5.0	7.3	6.7	6.3	6.7	6.3	4.0	5.3
32 A95-410	6.4	6.7	7.3	6.0	6.0	7.3	5.3	5.3	5.3	2.3	3.7	5.3
33 Rhythm	6.4	6.0	6.0	6.3	6.3	6.7	6.7	6.3	6.7	4.3	1.0	7.0
34 Bd98-2108	6.3	6.0	7.7	4.7	4.7	6.0	7.0	6.7	7.0	7.0	5.0	7.0
35 CPP 822	6.3	6.0	5.7	5.3	5.3	5.7	7.7	7.7	7.7	1.7	3.7	5.0
36 PST-101-390	6.3	6.3	5.7	6.3	6.3	7.0	6.7	6.0	6.7	4.0	3.3	8.7
37 POPR 04594	6.3	7.3	6.0	4.3	4.3	7.7	6.7	6.0	6.7	9.0	6.0	5.3
38 A96-1368	6.3	6.3	6.0	4.3	4.3	7.0	7.7	6.3	7.7	7.7	6.3	6.3
39 Bd 03-84	6.2	6.3	6.7	5.3	5.3	3.3	8.3	7.3	8.3	8.0	4.0	7.7
40 Bd 99-2103	6.2	5.7	5.7	6.0	6.0	7.7	6.3	6.0	6.3	5.7	2.0	8.0
41 Julia	6.2	6.3	7.0	5.7	5.7	4.3	8.0	6.0	8.0	6.7	6.0	4.7
42 A00-99	6.2	6.0	5.7	5.0	5.0	7.3	6.7	6.7	6.7	5.7	4.0	5.0
43 Diva	6.2	6.0	6.7	5.7	5.7	5.3	7.0	6.7	7.0	5.3	5.3	7.0
44 RAD-343	6.2	5.3	4.7	4.7	4.7	8.3	7.3	6.7	7.3	3.3	6.7	5.0
45 Argos	6.1	6.0	6.0	6.0	6.0	5.0	6.7	7.0	6.7	5.0	4.7	7.7
46 Harmonie	6.1	6.0	6.0	5.0	5.0	5.0	7.3	7.3	7.3	3.7	3.3	5.0
47 1QG-38	6.1	5.3	5.0	4.7	4.7	6.7	7.3	7.7	7.3	4.7	2.7	5.7
48 A99-2377	6.1	5.7	7.3	5.3	5.3	5.3	7.0	6.0	7.0	5.7	3.3	7.0
49 SPTR 2959	6.1	5.3	6.7	5.7	5.7	5.0	7.3	6.7	7.3	3.3	3.0	6.3
50 Barrister	6.1	6.0	6.3	6.3	6.3	6.0	6.3	5.7	6.3	2.7	1.7	6.7

(Continued)

Table 1 (continued).

Cultivar or Selection	Turf Quality ¹										Establishment ² Oct. 5 2005	Spring Green-up ³ April 10 2006	Color ⁴ Sept. 29 2006
	2006 Avg.	May 2006	June 2006	July 2006	Aug. 2006	Sept. 2006	Oct. 2006						
51 AKB449	6.1	6.7	7.0	7.0	4.3	5.3	6.3	2.3	3.0	8.0			
52 SWAG514	6.1	7.7	5.0	3.0	6.0	7.0	3.3	1.3	6.0				
53 PST-1A1-899	6.0	6.0	5.3	7.0	6.0	6.3	3.7	6.7	6.3				
54 A97-1560	6.0	6.7	5.0	5.3	6.3	7.0	6.7	3.7	4.7				
55 Yankee	6.0	5.7	6.3	6.7	4.0	7.0	3.3	3.3	5.7				
56 A99-2559	6.0	5.7	6.3	7.7	5.7	5.3	4.3	6.3	3.7				
57 A93-201	5.9	5.7	5.7	4.3	6.3	7.0	4.3	5.7	5.3				
58 J-2791	5.9	7.0	5.3	5.0	5.7	6.0	4.3	3.7	7.3				
59 NuGlade	5.9	6.0	6.7	5.0	5.3	6.3	4.7	2.0	6.0				
60 DP 76-9066	5.9	6.3	5.3	4.0	5.7	6.3	4.7	3.0	6.3				
61 Starburst	5.9	6.3	6.7	5.3	4.7	5.3	4.7	5.7	3.3				
62 Bd 95-1930	5.8	5.7	4.0	6.7	6.0	7.0	4.3	6.7	6.3				
63 Bd 98-1358	5.8	5.3	5.7	4.7	5.7	7.0	6.3	5.3	5.0				
64 CPP 821	5.8	6.3	4.3	4.7	7.0	7.0	3.7	4.0	5.3				
65 Blue Note	5.8	6.0	5.3	5.7	5.7	6.7	3.0	4.3	7.0				
66 Washington	5.8	5.7	3.3	6.3	6.7	8.0	7.0	6.0	6.3				
67 Skye	5.8	5.0	5.7	6.3	5.7	6.3	2.7	5.0	5.3				
68 Bariris	5.8	6.0	5.0	5.3	6.0	6.3	5.3	5.3	4.0				
69 A99-2427	5.8	5.3	6.0	5.3	5.7	6.3	5.3	3.7	7.7				
70 A00-247	5.8	5.0	5.0	6.7	6.3	7.3	3.7	2.3	6.3				
71 Avid	5.8	5.7	5.3	6.0	6.0	5.3	2.3	3.3	6.0				
72 STR 2485	5.8	5.3	4.3	6.3	6.3	7.0	2.3	6.3	6.3				
73 Wild Horse	5.7	5.7	5.3	4.0	7.0	6.0	6.3	5.0	6.0				
74 MSP 3722	5.7	6.7	5.0	4.7	5.3	5.7	3.7	4.3	6.3				
75 Shiraz	5.7	5.0	5.0	4.3	7.0	7.3	4.7	4.7	6.7				

(Continued)

Table 1 (continued).

	Cultivar or Selection	Turf Quality ¹										Establishment ² Oct. 5 2005	Spring Green-up ³ April 10 2006	Color ⁴ Sept. 29 2006
		2006 Avg.	May 2006	June 2006	July 2006	Aug. 2006	Sept. 2006	Oct. 2006						
76	Princeton 105	5.7	5.7	5.7	6.0	5.7	5.7	5.7	5.7	5.7	5.7	1.0	3.7	6.0
77	STR 2553	5.7	5.3	5.3	5.0	7.0	5.3	5.3	7.0	5.3	6.0	4.3	3.3	4.7
78	A03-66	5.7	6.0	7.0	5.0	5.7	5.0	5.0	5.7	5.3	5.3	5.0	4.7	6.7
79	Glenmont	5.6	7.3	6.3	4.7	3.3	4.7	5.7	6.3	6.3	6.3	5.0	4.3	6.7
80	Touche	5.6	6.0	4.7	4.0	6.7	4.0	5.3	6.7	7.0	7.0	2.7	6.3	6.0
81	A98-689	5.6	5.7	6.0	5.0	5.3	5.0	6.3	5.3	5.0	5.0	1.3	3.3	4.0
82	CPP 817	5.5	6.3	5.3	4.7	3.0	4.7	6.3	3.0	7.7	7.7	6.7	3.3	5.7
83	A99-3119	5.5	5.3	4.7	4.7	6.3	4.7	5.3	6.3	7.0	7.0	4.3	4.0	4.7
84	A98-948	5.5	5.3	6.0	5.0	4.3	5.0	5.7	4.3	6.7	6.7	4.7	5.0	5.7
85	Emblem	5.5	5.7	5.7	6.0	3.7	6.0	5.0	3.7	7.0	7.0	4.3	2.7	7.7
86	A00-1254	5.4	5.3	5.7	5.7	6.7	5.7	4.0	6.7	5.3	5.3	3.3	6.3	5.7
87	RAD-762	5.4	5.0	4.7	3.7	6.7	3.7	6.0	6.7	6.7	6.7	1.7	4.7	6.0
88	BAR VV 0665	5.4	6.0	6.0	5.0	4.7	5.0	5.0	4.7	6.0	6.0	3.0	3.7	5.0
89	Shamrock	5.4	5.7	6.7	5.3	3.0	5.3	5.3	3.0	6.3	6.3	5.7	4.3	6.3
90	America	5.4	5.7	4.7	4.3	6.0	4.3	5.3	6.0	6.3	6.3	5.0	3.0	4.3
91	A97-1287	5.4	5.0	5.7	5.3	3.7	5.3	6.3	3.7	6.3	6.3	3.7	3.7	8.0
92	Zinfandel	5.3	5.7	6.0	4.7	4.7	4.7	5.3	4.7	5.7	5.7	5.0	2.7	7.7
93	Rugby II	5.3	5.3	6.7	5.0	3.7	5.0	5.3	3.7	5.7	5.7	5.7	3.0	5.7
94	Volt	5.3	5.7	6.0	6.0	3.3	6.0	4.7	3.3	6.0	6.0	5.0	5.3	5.3
95	PST-101-73	5.3	5.3	5.0	4.3	5.3	4.3	5.7	5.3	6.0	6.0	3.7	3.0	6.0
96	PSG 711	5.3	5.0	4.3	4.7	5.7	4.7	5.7	5.7	6.3	6.3	4.3	3.3	5.3
97	PST-109-752	5.2	5.3	5.0	5.3	4.3	5.3	5.0	4.3	6.3	6.3	5.3	5.7	5.7
98	A01-299	5.2	5.0	5.0	4.7	5.7	4.7	4.7	5.7	6.0	6.0	4.3	2.3	5.0
99	RAD-504	5.2	5.0	6.0	5.0	4.7	5.0	5.3	4.7	5.0	5.0	1.3	5.0	7.3
100	H94-305	5.2	5.7	5.7	5.3	4.3	5.3	5.3	4.3	4.7	4.7	6.0	7.0	3.3

(Continued)

Table 1 (continued).

Cultivar or Selection	Turf Quality ¹										Establishment ² Oct. 5 2005	Spring Green-up ³ April 10 2006	Color ⁴ Sept. 29 2006
	2006 Avg.	May 2006	June 2006	July 2006	Aug. 2006	Sept. 2006	Oct. 2006						
101	Mystere	5.2	5.0	5.3	5.7	5.3	5.0	4.7	3.0	7.3	5.3	5.3	
102	H98-701	5.1	4.7	5.0	4.3	5.3	5.0	6.0	4.0	3.0	5.0	5.0	
103	RAD-0AN64	4.9	5.0	6.0	3.7	5.0	4.3	5.7	2.3	3.3	5.0	5.0	
104	Pinot	4.9	5.0	4.0	4.7	4.7	5.0	6.0	1.3	3.7	7.0	7.0	
105	Arrowhead	4.9	5.0	4.3	4.0	5.3	5.3	5.3	1.0	2.0	6.3	6.3	
106	BAR VK 0710	4.9	5.3	5.3	4.7	3.7	4.7	5.3	4.3	7.3	3.3	3.3	
107	Bandera	4.8	5.3	5.7	4.7	4.0	4.0	5.3	3.0	1.7	3.0	3.0	
108	BAR VV 9634	4.8	5.0	5.3	4.3	3.7	4.7	5.7	3.7	5.7	4.7	4.7	
109	PSG 366	4.7	4.3	5.3	4.0	4.0	4.7	5.7	3.7	4.3	6.3	6.3	
110	Corsair	4.6	4.7	5.7	4.7	4.0	3.3	5.7	1.3	4.0	7.3	7.3	
111	Dynamo	4.6	5.3	5.0	3.3	3.3	4.7	6.0	1.3	2.3	5.7	5.7	
112	DP 76-9081	4.6	5.3	5.0	5.0	4.0	4.3	3.7	3.0	5.0	2.0	2.0	
113	Baron	4.6	6.0	6.0	4.0	3.0	4.0	4.3	4.7	2.3	4.3	4.3	
114	BAR VV 9630	4.5	5.0	5.7	4.7	2.7	4.3	5.0	4.0	5.3	4.7	4.7	
115	NA-3259	4.5	5.0	5.0	3.7	3.7	4.3	5.3	2.0	3.7	8.0	8.0	
116	BAR VV 0709	4.4	3.7	3.3	4.3	4.7	5.3	5.3	2.3	8.3	2.3	2.3	
117	BAR VV 8536	4.3	5.7	5.0	4.0	2.7	3.3	5.3	5.0	3.3	3.7	3.7	
118	A99-3122	4.3	5.0	5.7	4.3	2.0	3.7	5.0	4.0	5.3	7.7	7.7	
119	DLF 76-9075	3.3	5.3	4.3	2.7	3.0	2.3	2.0	4.3	3.7	2.7	2.7	
120	Reveille	3.2	3.0	3.3	2.3	2.7	3.3	4.7	2.0	4.7	5.3	5.3	
121	Kenblue	3.1	4.0	3.0	2.3	3.0	3.0	3.3	5.3	7.3	3.0	3.0	

(Continued)

Table 1 (continued).

Cultivar or Selection	Turf Quality ¹								Establishment ² Oct. 5 2005	Spring Green-up ³ April 10 2006	Color ⁴ Sept. 29 2006
	2006 Avg.	May 2006	June 2006	July 2006	Aug. 2006	Sept. 2006	Oct. 2006	1.5			
LSD at 5% =	1.0	1.4	1.7	1.3	1.9	1.6	1.5	1.7	1.7	1.5	

¹9 = best turf quality
²9 = most rapid establishment
³9 = earliest spring green-up
⁴9 = darkest green color

Table 2. Wear tolerance (fullness of turfgrass cover) in Kentucky bluegrass cultivars and selections subjected to wear in a turf trial seeded in September 2005 at North Brunswick, NJ. (Includes all entries of the 2005 National Turfgrass Evaluation Program (NTEP) Kentucky Bluegrass Test).

Cultivar or Selection	---Wear Tolerance (Number of Passes) ¹ ---					-----No Wear-----		
	2006 Avg.	6 Oct. 3 2006	12 Oct. 4 2006	18 Oct. 9 2006	2006 Avg.	Sept. 29 2006	Oct. 10 2006	
1	Harmonie	85.0	90.0	88.3	76.7	94.7	94.0	95.3
2	CP 76-9068	84.5	91.7	88.3	73.3	97.3	97.7	97.0
3	Julia	80.6	85.0	83.3	73.3	85.0	83.3	86.7
4	Midnight II	78.9	80.0	80.0	76.7	86.7	85.0	88.3
5	CPP 821	78.3	85.0	81.7	68.3	92.3	89.0	95.7
6	Bariris	78.3	85.0	80.0	70.0	84.0	82.3	85.7
7	CPP 822	77.8	81.7	80.0	71.7	96.5	95.3	97.7
8	Everest	77.8	80.0	78.3	75.0	83.3	78.3	88.3
9	Prosperity	76.7	81.7	76.7	71.7	80.8	80.0	81.7
10	Excursion	76.6	80.0	78.3	71.7	85.8	86.7	85.0
11	Midnight	76.1	80.0	78.3	70.0	83.3	78.3	88.3
12	J-1326	75.6	78.3	75.0	73.3	83.0	84.3	81.7
13	NA-3257	75.6	78.3	76.7	71.7	79.2	73.3	85.0
14	NA-3248	75.5	81.7	78.3	66.7	85.0	86.7	83.3
15	J-2399	75.0	80.0	75.0	70.0	82.8	84.0	81.7
16	J-3429	74.5	81.7	73.3	68.3	80.0	81.7	78.3
17	J-2404	74.4	76.7	75.0	71.7	85.0	83.3	86.7
18	Nu Destiny	74.4	78.3	75.0	70.0	83.3	85.0	81.7
19	Beyond	74.4	80.0	73.3	70.0	78.3	75.0	81.7
20	J-2024	73.9	75.0	75.0	71.7	80.0	75.0	85.0
21	Bewitched	73.4	80.0	75.0	65.0	82.5	80.0	85.0
22	J-2502	73.3	76.7	75.0	68.3	81.7	80.0	83.3
23	J-1466	72.2	76.7	73.3	66.7	85.0	83.3	86.7
24	J-2870	72.2	76.7	75.0	65.0	85.3	85.7	85.0
25	Rhythm	72.2	76.7	73.3	66.7	81.7	80.0	83.3
26	NuGlade	71.7	75.0	73.3	66.7	80.8	81.7	80.0
27	J-1334	71.1	75.0	71.7	66.7	81.2	82.3	80.0
28	Everglade	71.1	78.3	71.7	63.3	82.0	82.3	81.7
29	A96-1368	71.1	73.3	75.0	65.0	82.5	81.7	83.3
30	RAD-343	70.6	76.7	71.7	63.3	80.8	80.0	81.7
31	Barrister	70.6	73.3	71.7	66.7	75.8	75.0	76.7
32	Impact	70.0	71.7	73.3	65.0	81.7	83.3	80.0
33	Bluestone	70.0	70.0	73.3	66.7	77.5	76.7	78.3
34	SWAG514	69.4	71.7	71.7	65.0	86.7	90.0	83.3
35	DP 76-9066	69.4	78.3	70.0	60.0	85.3	82.3	88.3

(Continued)

Table 2 (continued).

	Cultivar or Selection	---Wear Tolerance (Number of Passes) ¹ ---				-----No Wear-----		
		2006 Avg.	6 Oct. 3 2006	12 Oct. 4 2006	18 Oct. 9 2006	2006 Avg.	Sept. 29 2006	Oct. 10 2006
36	Washington	69.4	76.7	68.3	63.3	83.3	80.0	86.7
37	Emblem	69.4	78.3	71.7	58.3	83.8	81.0	86.7
38	Touche	68.9	73.3	68.3	65.0	78.3	78.3	78.3
39	A00-99	68.9	75.0	71.7	60.0	75.5	74.3	76.7
40	Bd 03-159	68.4	73.3	71.7	60.0	79.7	81.0	78.3
41	POPR 04594	68.4	76.7	70.0	58.3	78.3	73.3	83.3
42	MSP 3723	68.3	75.0	71.7	58.3	79.2	76.7	81.7
43	Blue Note	68.3	73.3	70.0	61.7	81.7	78.3	85.0
44	A99-523	68.3	75.0	71.7	58.3	80.0	80.0	80.0
45	Skye	67.8	71.7	70.0	61.7	75.8	73.3	78.3
46	Bd 03-84	67.8	75.0	70.0	58.3	77.5	76.7	78.3
47	Award	67.8	73.3	70.0	60.0	80.8	78.3	83.3
48	PST-109-752	67.8	73.3	68.3	61.7	76.7	76.7	76.7
49	BAR VV 0709	67.8	78.3	68.3	56.7	80.0	80.0	80.0
50	Blueberry	67.2	73.3	66.7	61.7	75.0	75.0	75.0
51	Argos	67.2	78.3	65.0	58.3	78.3	80.0	76.7
52	Belissimo	67.2	73.3	70.0	58.3	78.3	78.3	78.3
53	J-2791	67.2	73.3	70.0	58.3	85.8	88.3	83.3
54	Avid	66.7	73.3	66.7	60.0	71.7	70.0	73.3
55	PST-101-390	66.7	71.7	70.0	58.3	78.3	80.0	76.7
56	A97-1560	66.7	73.3	71.7	55.0	79.7	79.3	80.0
57	MSP 3724	66.6	76.7	66.7	56.7	75.0	73.3	76.7
58	A98-948	66.1	73.3	66.7	58.3	76.7	76.7	76.7
59	Shiraz	66.1	71.7	70.0	56.7	78.3	75.0	81.7
60	STR 2485	65.6	68.3	66.7	61.7	77.5	76.7	78.3
61	Diva	65.6	75.0	63.3	58.3	82.5	81.7	83.3
62	Bd 95-1930	65.0	68.3	66.7	60.0	79.2	78.3	80.0
63	A93-201	65.0	71.7	66.7	56.7	79.2	76.7	81.7
64	1QG-38	64.5	68.3	66.7	58.3	75.8	75.0	76.7
65	Bd98-2108	64.4	68.3	68.3	56.7	71.7	70.0	73.3
66	PSG 711	63.9	73.3	65.0	53.3	75.0	70.0	80.0
67	RAD-762	63.3	66.7	65.0	58.3	73.3	75.0	71.7
68	BAR VV 0665	63.3	73.3	63.3	53.3	77.5	76.7	78.3
69	Princeton 105	63.3	68.3	65.0	56.7	74.7	76.0	73.3
70	CPP 817	62.8	73.3	63.3	51.7	76.7	70.0	83.3

(Continued)

Table 2 (continued).

	Cultivar or Selection	---Wear Tolerance (Number of Passes) ¹ ---				-----No Wear-----		
		2006 Avg.	6 Oct. 3 2006	12 Oct. 4 2006	18 Oct. 9 2006	2006 Avg.	Sept. 29 2006	Oct. 10 2006
71	A99-3119	62.8	68.3	65.0	55.0	74.2	73.3	75.0
72	Yankee	62.8	65.0	66.7	56.7	80.0	75.0	85.0
73	Wild Horse	62.2	71.7	63.3	51.7	75.8	73.3	78.3
74	Bd 98-1358	62.2	70.0	65.0	51.7	75.0	71.7	78.3
75	A99-2427	62.2	66.7	66.7	53.3	70.0	66.7	73.3
76	Shamrock	61.7	68.3	65.0	51.7	77.5	76.7	78.3
77	Rugby II	61.7	63.3	63.3	58.3	75.8	76.7	75.0
78	BAR VV 9634	61.7	66.7	61.7	56.7	66.7	63.3	70.0
79	Bd 99-2103	61.1	71.7	61.7	50.0	73.3	75.0	71.7
80	A99-2559	61.1	68.3	66.7	48.3	73.3	73.3	73.3
81	America	61.1	68.3	61.7	53.3	75.8	73.3	78.3
82	A98-689	60.6	75.0	60.0	46.7	73.3	73.3	73.3
83	A00-247	60.6	66.7	63.3	51.7	75.0	73.3	76.7
84	AKB449	60.0	65.0	63.3	51.7	74.2	71.7	76.7
85	Zinfandel	59.4	65.0	61.7	51.7	67.5	61.7	73.3
86	BAR VV 9630	59.4	66.7	58.3	53.3	67.5	63.3	71.7
87	H94-305	58.9	63.3	63.3	50.0	72.5	71.7	73.3
88	PST-1A1-899	58.4	70.0	60.0	45.0	75.8	75.0	76.7
89	Pinot	58.3	65.0	58.3	51.7	70.8	65.0	76.7
90	H98-701	58.3	65.0	60.0	50.0	68.3	63.3	73.3
91	Dynamo	57.2	63.3	60.0	48.3	70.0	66.7	73.3
92	STR 2553	57.2	61.7	60.0	50.0	74.2	73.3	75.0
93	A00-1400	56.7	68.3	58.3	43.3	79.2	76.7	81.7
94	A97-1287	56.7	65.0	58.3	46.7	71.7	68.3	75.0
95	Arrowhead	56.1	63.3	58.3	46.7	72.5	71.7	73.3
96	A99-2377	55.6	61.7	58.3	46.7	75.8	73.3	78.3
97	RAD-0AN64	55.0	63.3	58.3	43.3	69.2	68.3	70.0
98	A00-1254	55.0	63.3	56.7	45.0	69.2	66.7	71.7
99	A01-299	55.0	61.7	60.0	43.3	75.0	73.3	76.7
100	BAR VK 0710	55.0	60.0	58.3	46.7	66.7	63.3	70.0
101	Mystere	55.0	66.7	60.0	38.3	66.3	62.7	70.0
102	SPTR 2959	55.0	63.3	56.7	45.0	78.3	78.3	78.3
103	Bandera	54.4	61.7	56.7	45.0	65.8	58.3	73.3
104	Baron	53.3	61.7	53.3	45.0	67.5	61.7	73.3
105	A03-66	53.3	61.7	55.0	43.3	70.0	68.3	71.7

(Continued)

Table 2 (continued).

Cultivar or Selection	---Wear Tolerance (Number of Passes) ¹ ---						-----No Wear-----	
	2006 Avg.	6 Oct. 3 2006	12 Oct. 4 2006	18 Oct. 9 2006	2006 Avg.	Sept. 29 2006	Oct. 10 2006	
106 BAR VV 8536	52.8	60.0	55.0	43.3	68.3	65.0	71.7	
107 MSP 3722	52.8	61.7	53.3	43.3	71.7	70.0	73.3	
108 Volt	52.2	63.3	55.0	38.3	75.0	73.3	76.7	
109 Glenmont	52.2	65.0	55.0	36.7	72.5	70.0	75.0	
110 DP 76-9081	51.7	61.7	51.7	41.7	72.5	71.7	73.3	
111 PST-101-73	51.1	58.3	51.7	43.3	69.2	68.3	70.0	
112 Corsair	50.6	58.3	50.0	43.3	62.5	55.0	70.0	
113 A99-3122	50.0	55.0	53.3	41.7	62.5	56.7	68.3	
114 Reveille	48.3	60.0	48.3	36.7	60.8	56.7	65.0	
115 Starburst	46.1	53.3	48.3	36.7	70.0	68.3	71.7	
116 NA-3259	45.6	53.3	48.3	35.0	65.0	61.7	68.3	
117 RAD-504	44.4	58.3	48.3	26.7	70.0	66.7	73.3	
118 A95-410	43.9	60.0	43.3	28.3	73.3	71.7	75.0	
119 PSG 366	43.3	55.0	43.3	31.7	71.7	70.0	73.3	
120 Kenblue	41.1	46.7	43.3	33.3	57.5	51.7	63.3	
121 DLF 76-9075	27.8	45.0	26.7	11.7	51.7	43.3	60.0	
LSD at 5% =	9.8	11.0	10.2	12.0	7.8	10.8	8.3	

¹ Wear tolerance assessed as percent (fullness) of turfgrass cover using a 0 to 100 scale (0 = absence of turfgrass canopy to 100 = full cover).

Table 3. Recovery and bruising injury of Kentucky bluegrass cultivars and selections subjected to simulated wear in a turf trial seeded September 2005 at North Brunswick, NJ. (Includes all entries of the 2005 National Turfgrass Evaluation Program (NTEP) Kentucky Bluegrass Test.)

	Cultivar or Selection	-----Recovery (Days after Wear) ¹ -----				--Bruising Injury (Days after Wear) ² --			
		2006 Avg.	15 Oct. 24 2006	22 Oct. 31 2006	42 Nov. 20 2006	2006 Avg.	15 Sept. 29 2006	22 Oct. 10 2006	42 Nov. 20 2006
1	Bariris	82.2	76.7	80.0	90.0	8.3	8.0	8.3	8.7
2	Julia	80.6	80.0	75.0	86.7	8.3	8.3	8.0	8.7
3	Harmonie	80.0	75.0	80.0	85.0	5.2	4.0	5.0	6.7
4	Excursion	80.0	73.3	75.0	91.7	7.3	6.3	7.0	8.7
5	Midnight II	78.9	75.0	76.7	85.0	7.6	7.0	7.3	8.7
6	Everest	78.9	75.0	71.7	90.0	7.8	7.3	7.3	8.7
7	Beyond	78.3	71.7	75.0	88.3	8.1	7.3	8.0	9.0
8	Midnight	77.8	71.7	73.3	88.3	7.4	7.0	7.0	8.3
9	Impact	77.8	70.0	75.0	88.3	7.5	6.7	7.3	8.7
10	CP 76-9068	76.7	73.3	75.0	81.7	4.9	4.3	4.3	6.0
11	Rhythm	76.7	70.0	75.0	85.0	7.7	6.7	7.3	9.0
12	J-1326	76.1	70.0	73.3	85.0	7.6	6.7	7.3	8.7
13	J-1334	76.1	73.3	71.7	83.3	7.6	7.0	7.3	8.7
14	CPP 822	76.1	70.0	73.3	85.0	5.6	4.7	5.0	7.3
15	J-2024	76.1	71.7	71.7	85.0	8.0	7.3	7.7	9.0
16	J-2870	76.1	71.7	71.7	85.0	7.8	7.3	7.3	8.7
17	Barrister	76.1	73.3	73.3	81.7	7.7	7.0	7.3	8.7
18	CPP 821	75.6	73.3	70.0	83.3	6.5	5.3	6.0	8.0
19	NA-3248	75.6	68.3	78.3	80.0	8.1	7.3	8.0	9.0
20	J-1466	75.6	71.7	73.3	81.7	7.4	6.7	7.0	8.3
21	Award	75.0	66.7	73.3	85.0	7.5	6.7	7.3	8.7
22	Everglade	74.5	65.0	70.0	88.3	6.8	5.7	6.3	8.3
23	J-2399	74.4	71.7	71.7	80.0	7.1	6.3	7.0	8.0
24	J-2404	74.4	68.3	71.7	83.3	7.5	7.0	7.3	8.3
25	NA-3257	73.9	66.7	75.0	80.0	7.8	7.3	8.0	8.0
26	Nu Destiny	73.9	70.0	73.3	78.3	7.2	6.7	6.7	8.3
27	J-2502	73.4	70.0	70.0	80.0	6.8	6.0	6.7	7.7
28	NuGlade	73.3	66.7	73.3	80.0	7.0	6.0	6.7	8.3
29	J-3429	72.8	65.0	68.3	85.0	6.7	5.3	6.3	8.3
30	Prosperity	72.2	70.0	70.0	76.7	7.2	6.3	7.0	8.3
31	Bluestone	72.2	66.7	70.0	80.0	7.2	6.7	6.7	8.3
32	BAR VV 0709	72.2	63.3	70.0	83.3	8.3	7.7	8.3	9.0
33	A96-1368	72.2	70.0	70.0	76.7	7.4	6.3	7.7	8.0
34	Bewitched	71.7	65.0	70.0	80.0	6.1	4.7	6.3	7.3
35	A93-201	71.1	63.3	68.3	81.7	7.6	6.0	7.7	9.0

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Recovery (Days after Wear) ¹ -----				--Bruising Injury (Days after Wear) ² --			
		2006 Avg.	15 Oct. 24 2006	22 Oct. 31 2006	42 Nov. 20 2006	2006 Avg.	15 Sept. 29 2006	22 Oct. 10 2006	42 Nov. 20 2006
36	SWAG514	70.0	66.7	70.0	73.3	7.0	6.7	6.7	7.7
37	Avid	70.0	65.0	68.3	76.7	7.8	7.3	7.3	8.7
38	RAD-343	68.9	63.3	68.3	75.0	7.2	6.3	7.0	8.3
39	Washington	68.9	66.7	66.7	73.3	7.5	6.7	7.3	8.7
40	A99-523	68.9	65.0	70.0	71.7	7.5	6.7	7.7	8.0
41	A99-2427	68.9	63.3	66.7	76.7	7.8	6.7	7.7	9.0
42	MSP 3723	68.3	66.7	65.0	73.3	7.7	7.0	7.7	8.3
43	Blueberry	67.8	63.3	66.7	73.3	6.8	5.7	6.7	8.0
44	Touche	67.8	63.3	66.7	73.3	6.8	6.0	6.0	8.3
45	A00-99	67.8	63.3	68.3	71.7	7.3	6.7	7.3	8.0
46	Blue Note	67.8	65.0	63.3	75.0	7.3	6.7	7.0	8.3
47	MSP 3724	67.8	63.3	65.0	75.0	7.6	7.0	7.0	8.7
48	PST-109-752	66.7	61.7	65.0	73.3	8.1	7.3	8.0	9.0
49	A99-2559	66.7	60.0	63.3	76.7	8.0	7.3	7.7	9.0
50	DP 76-9066	66.6	60.0	65.0	75.0	5.4	3.7	5.0	7.7
51	A98-948	66.6	58.3	63.3	78.3	7.7	6.3	8.0	8.7
52	Skye	66.1	63.3	63.3	71.7	6.8	6.0	6.3	8.0
53	BAR VV 9634	66.1	60.0	65.0	73.3	7.8	7.3	7.7	8.3
54	Bd 03-159	65.6	61.7	60.0	75.0	6.6	5.3	6.0	8.3
55	RAD-762	65.6	61.7	63.3	71.7	7.4	6.0	7.7	8.7
56	BAR VK 0710	65.6	60.0	65.0	71.7	7.5	7.3	7.3	7.7
57	POPR 04594	65.0	65.0	63.3	66.7	6.6	5.7	6.3	7.7
58	Belissimo	65.0	60.0	66.7	68.3	7.0	7.0	6.7	7.3
59	BAR VV 0665	65.0	63.3	61.7	70.0	7.5	7.0	7.3	8.3
60	Wild Horse	65.0	60.0	61.7	73.3	7.7	7.0	7.7	8.3
61	Bd 98-1358	65.0	61.7	61.7	71.7	7.2	6.0	7.3	8.3
62	A99-3119	64.5	61.7	63.3	68.3	7.1	6.7	7.3	7.3
63	A97-1560	64.4	60.0	66.7	66.7	6.6	5.7	7.0	7.0
64	Princeton 105	64.4	58.3	63.3	71.7	6.9	5.7	6.7	8.3
65	Bd 03-84	63.9	60.0	63.3	68.3	7.1	6.0	7.3	8.0
66	Rugby II	63.9	56.7	63.3	71.7	6.8	5.7	6.7	8.0
67	A00-247	63.9	58.3	65.0	68.3	6.9	6.3	7.0	7.3
68	BAR VV 9630	63.9	55.0	63.3	73.3	7.8	7.3	8.3	7.7
69	H94-305	63.9	61.7	61.7	68.3	8.1	8.0	7.3	9.0
70	Dynamo	63.9	55.0	61.7	75.0	7.7	6.7	7.7	8.7

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Recovery (Days after Wear) ¹ -----				--Bruising Injury (Days after Wear) ² --			
		2006 Avg.	15 Oct. 24 2006	22 Oct. 31 2006	42 Nov. 20 2006	2006 Avg.	15 Sept. 29 2006	22 Oct. 10 2006	42 Nov. 20 2006
71	Argos	63.9	58.3	61.7	71.7	6.9	5.7	7.0	8.0
72	1QG-38	63.4	60.0	61.7	68.3	7.4	7.0	7.0	8.0
73	CPP 817	63.3	55.0	63.3	71.7	6.2	4.3	6.3	8.0
74	Shiraz	62.8	53.3	61.7	73.3	7.0	6.0	6.3	8.7
75	Bd98-2108	62.8	60.0	61.7	66.7	7.5	6.7	7.0	9.0
76	Yankee	62.8	58.3	56.7	73.3	6.1	4.3	6.0	8.0
77	STR 2485	62.2	56.7	61.7	68.3	6.7	5.7	6.3	8.0
78	Diva	62.2	60.0	63.3	63.3	6.2	5.0	6.3	7.3
79	PSG 711	62.2	56.7	63.3	66.7	6.9	6.7	6.7	7.3
80	STR 2553	62.2	58.3	61.7	66.7	7.0	5.7	7.3	8.0
81	Bandera	62.2	55.0	61.7	70.0	6.6	5.0	7.0	7.7
82	Baron	62.2	56.7	60.0	70.0	6.7	6.3	6.7	7.0
83	PST-101-390	62.2	60.0	61.7	65.0	6.4	5.3	6.0	8.0
84	Mystere	62.2	55.0	63.3	68.3	8.1	7.7	8.0	8.7
85	J-2791	61.7	56.7	56.7	71.7	5.3	4.0	4.7	7.3
86	A03-66	61.7	56.7	58.3	70.0	6.9	5.7	6.7	8.3
87	Volt	61.1	58.3	55.0	70.0	6.6	5.7	6.3	7.7
88	Pinot	61.1	53.3	61.7	68.3	6.9	5.7	7.0	8.0
89	A00-1400	61.1	56.7	58.3	68.3	6.9	5.7	6.7	8.3
90	A97-1287	61.1	50.0	61.7	71.7	7.9	7.3	8.0	8.3
91	RAD-0AN64	61.1	58.3	60.0	65.0	6.8	5.7	7.0	7.7
92	A00-1254	61.1	60.0	58.3	65.0	6.9	6.0	6.7	8.0
93	America	60.6	55.0	61.7	65.0	6.9	6.7	7.0	7.0
94	H98-701	60.5	56.7	63.3	61.7	6.8	7.0	6.7	6.7
95	RAD-504	60.0	55.0	56.7	68.3	7.2	6.3	7.0	8.3
96	Emblem	60.0	53.3	58.3	68.3	5.5	4.0	5.3	7.3
97	Bd 95-1930	60.0	53.3	60.0	66.7	6.5	5.3	6.3	8.0
98	Shamrock	60.0	55.0	56.7	68.3	6.8	5.7	6.7	8.0
99	AKB449	60.0	55.0	58.3	66.7	6.7	5.0	6.3	8.7
100	SPTR 2959	60.0	53.3	56.7	70.0	7.3	6.7	7.0	8.3
101	Bd 99-2103	58.3	56.7	55.0	63.3	6.2	5.3	6.0	7.3
102	A99-2377	58.3	51.7	58.3	65.0	6.3	5.0	6.0	8.0
103	A01-299	58.3	48.3	58.3	68.3	6.5	5.7	6.3	7.7
104	MSP 3722	57.8	50.0	58.3	65.0	7.3	6.7	7.3	8.0
105	Zinfandel	57.2	48.3	56.7	66.7	6.8	5.7	6.3	8.3

(Continued)

Table 3 (continued).

	Cultivar or Selection	-----Recovery (Days after Wear) ¹ -----				--Bruising Injury (Days after Wear) ² --			
		2006 Avg.	15 Oct. 24 2006	22 Oct. 31 2006	42 Nov. 20 2006	2006 Avg.	15 Sept. 29 2006	22 Oct. 10 2006	42 Nov. 20 2006
106	BAR VV 8536	57.2	46.7	61.7	63.3	6.2	6.0	6.0	6.7
107	A98-689	56.7	50.0	55.0	65.0	6.1	5.3	5.7	7.3
108	PST-1A1-899	56.1	50.0	55.0	63.3	6.4	5.0	6.0	8.3
109	DP 76-9081	55.6	46.7	55.0	65.0	6.7	5.7	6.7	7.7
110	PST-101-73	55.0	48.3	55.0	61.7	6.8	6.0	6.7	7.7
111	Arrowhead	54.5	46.7	55.0	61.7	6.4	5.0	6.3	8.0
112	Corsair	53.9	41.7	55.0	65.0	6.6	5.0	6.3	8.3
113	A95-410	53.9	46.7	51.7	63.3	6.4	4.7	6.7	8.0
114	NA-3259	52.8	41.7	51.7	65.0	6.8	5.7	6.3	8.3
115	STR 2703	52.2	43.3	50.0	63.3	6.8	5.7	6.0	8.7
116	A99-3122	50.5	43.3	53.3	55.0	5.9	5.0	5.3	7.3
117	PSG 366	50.0	40.0	50.0	60.0	6.3	4.7	6.0	8.3
118	Reveille	50.0	43.3	46.7	60.0	6.6	5.3	6.3	8.0
119	Glenmont	47.2	43.3	48.3	50.0	5.8	5.0	6.3	6.0
120	Kenblue	45.6	41.7	46.7	48.3	6.8	6.3	6.3	7.7
121	DLF 76-9075	30.0	26.7	25.0	38.3	5.8	4.0	5.0	8.3
	LSD at 5% =	8.7	11.1	9.1	10.5	0.9	1.3	1.1	1.0

¹Recovery from wear assessed as percent (fullness) of turfgrass cover using a 0 to 100% scale (0 = absence of a turfgrass canopy to 100 = full cover).

²9 = least bruising (discoloration resulting from wear).



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.