# Performance of Kentucky Bluegrass Turfgrass Cultivars and Selections at University Park, PA 1995-1999

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### Introduction

Tests of commercially-available turfgrass cultivars and experimental selections are conducted annually at Penn State University to provide turfgrass managers, seed industry representatives, county extension agents, and other interested persons with information about turfgrass characteristics and performance. In September 1995, 103 Kentucky bluegrass cultivars and selections were established at the Joseph Valentine Turfgrass Research Center in University Park, PA. All entries were supplied by the National Turfgrass Evaluation Program, an organization established to coordinate the evaluation of turfgrass cultivars and experimental selections in many locations throughout the United States. The following is a report on the performance of Kentucky bluegrass cultivars and selections from 1995 to 1999.

#### **Materials and Methods**

Each entry was seeded in September, 1995 in 4 by 6 ft plots at a rate of 2.3 lb of seed per 1000 sq ft. The entire test area received full sunlight. Three replicate plots of each entry were used in this test. Plots were arranged in a randomized complete block design. Prior to seeding, starter fertilizer was applied at a rate of 1.0 lb of N, 0.75 lb of  $P_2O_5$  (phosphate), and 0.75 lb  $K_2O$  (potash) per 1000 sq ft. The test was fertilized with 2 to 3 lbs nitrogen each year and was mowed at least once a week at 2.0 inches during the test period. The test was irrigated whenever necessary to prevent wilting.

## Assessments of Turfgrass Performance

All assessments of turfgrass performance were made on a visual basis. Care was taken to insure consistent and accurate evaluations. The following performance criteria were used to asses Kentucky bluegrass cultivars and selections.

Quality: Quality indicates the overall appearance of the turf and can incorporate several components including density, texture (measure of leaf width), uniformity, color, and

freedom from disease and insect damage. Quality was rated using a scale of 1-9, where 9 = highest quality.

<u>Seedling vigor</u>: This rating is a visual estimate of percent ground cover and plant height during the early stages of seedling establishment and reflects the rate of establishment. The plots were rated shortly after seeding using a scale of 1 to 9, where 9 = most vigorous seedling growth.

<u>Percent living ground cover</u>: This rating is used to express the amount of living turf cover remaining after massive localized damage has occurred (such as that caused by disease, insects, weeds, and drought). Percent living ground cover was rated on a scale of 0 to 99%, where 99% = the highest obtainable living ground cover.

<u>Spring green-up</u>: Spring green-up provides an indication of how soon the turf breaks out of winter dormancy. The plots were rated for spring green-up using a scale of 1-9, with 9 = the most uniform green color.

<u>Color</u>: This rating reflects the inherent color of the entry, not yellowing or browning due to mower injury, drought stress, disease, etc. Color ratings are usually taken when grass is not under stress. Color was rated on a scale of 1-9, with 9 = the darkest green color.

<u>Density</u>: Density is a visual estimate of the number of plants per unit area (excluding diseased or insect-damaged patches of turf). Density was rated on a scale of 1-9, with 9 = the most dense turf.

<u>Texture</u>: This rating provides an indication of the relative coarseness/fineness of turf leaf width. Texture is rated on a scale of 1-9, where 9 = the finest-textured turf.

<u>Seedheads</u>: Seedhead production under low mowing heights is generally considered undesirable. Seedheads were visually rated on a scale of 1 to 9 with 9 = the least number of seedheads.

<u>Disease ratings</u>: Disease ratings provide an indication of an entry's reaction to a particular disease. Disease ratings are based on a scale of 1-9 (with 1 = extensive disease damage and 9 = no disease present). Disease ratings of leaf spot, dollar spot, and necrotic ring spot are included in this report.

Data for the above criteria are presented in Tables 1, 2, and 3. Entries are listed in order of the highest combined season average quality to lowest combined season average quality for 1996, 1997, 1998 and 1999. Due to significant contamination of creeping bentgrass in four entries (**Explorer**, **Chicago**, **Arcadia**, and J-1555), quality ratings were not taken for these entries in 1999. The combined season average quality ratings for these four entries were determined by averaging season average quality ratings for 1996, 1997, and 1998.

Differences between two entries are statistically significant only if the LSD (Least Significant Difference) value, listed at the bottom of each column in Tables 1, 2, and 3 is exceeded by the numerical difference between two entries. For example, if entry 'A' is 3.0 units higher in quality than entry 'B', then this difference is only significant if the LSD value is 3.0 or less. If the LSD is greater than 3.0, then the numerical difference between

the two entries may be due to inherent variability in the test area or some other element of chance.

## **Summary of Results**

Differences in performance criteria were found among the Kentucky bluegrass entries during 1996-99. Owing to differences in growing conditions between 1996 and 1999, the performance of some entries varied among seasons. The 11 entries showing the highest season average quality over the four-year test period were:

SR 2109 North Star Blacksburg Brilliant NJ 1190 Unique Princeton 105 PST-P46 Conni LKB-95 Apollo

Entries that were fastest to establish (as reflected by seedling vigor ratings in 1995) were **Kenblue**, **Nimbus**, and **Baronie**. However, these three entries rated low in quality over the four year test period. Entries with the highest quality ratings generally had low seedling vigor ratings.

Entries with darkest green color over the four year test period included **Moonlight**, **Seabring**, **Total Eclipse**, and VB16015. Those with the lightest (yellow-green) color were **Compact**, BAR VB 3115B, Ba 76-197, **Classic**, **Baronie**, and **Haga**. Dark green Kentucky bluegrasses should not be included is seed mixes with light green cultivars if a uniform color is desired in the stand.

Some Kentucky bluegrasses produce seedheads during late spring and early summer. Seedheads are often considered undesirable and tend to detract from the appearance of the lawn. Entries with the greatest production of seedheads included Ba 81-113, **Dragon**, **Pepaya**, **Abbey**, and **Goldrush**.

Most Kentucky bluegrass entries exhibited high to moderate resistance to leaf spot, dollar spot, and necrotic ring spot diseases. However, some entries such as **Kenblue**, Ba 75-490, NJ-54, and **Glade** were damaged by leaf spot. Entries showing a high degree of dollar spot were BAR VB 6820, SRX 2205, **Pepaya**, BAR VB 233, and **Platini**. Necrotic ring spot severely injured **Pepaya**, HV 242, and BAR VB 6820. Disease resistance in turf may very considerably from year to year and from one location to another.

Keep in mind that the results of this test reflect cultivar performance for the management regime imposed at this site and environmental conditions in central Pennsylvania. This trial does not provide meaningful information on how these cultivars/selections will tolerate heavy traffic and extremely low mowing heights. Also,

these results may not be representative of all areas of the state, especially the extreme southeast portion.				

Table 1. Seasonal average quality ratings of Kentucky bluegrass entries for 1996 through 1999. Trial established in September, 1995 at the Joseph Valentine Research Center, University Park, PA.

	Turfgrass Quality Ratings <sup>1</sup>				
	Season	Season	Season	Season	Combined
	Average	Average	Average	Average	Season Ave.
Entry <sup>2</sup>	1996	1997	1998	1999	1996-99
SR 2109	7.9	7.3	8.3	7.7	7.8
North Star	6.5	6.7	8.3	7.2	7.2
Blacksburg	7.5	6.9	7.2	6.7	7.1
Brilliant	6.0	7.6	7.7	6.2	6.9
NJ 1190	7.1	6.5	7.4	6.5	6.9
Unique	6.5	6.9	7.4	6.6	6.9
Princeton 105	6.9	6.9	6.9	6.7	6.9
PST-P46	7.5	6.1	7.3	6.1	6.7
Conni	7.2	5.9	7.8	5.9	6.7
LKB-95	7.1	6.1	7.1	6.3	6.6
Apollo	6.0	6.7	7.4	6.2	6.6
Wildwood	6.9	6.0	7.7	5.6	6.5
America	6.2	6.7	7.2	5.8	6.5
Showcase	6.3	6.5	6.9	6.2	6.5
NuStar	7.1	6.5	6.3	5.8	6.5
Rambo	7.3	6.3	7.1	5.2	6.5
ZPS-2183	6.7	6.3	6.6	6.3	6.5
NJ-GD	6.8	7.1	6.6	5.4	6.5
BAR VB 3115B	7.3	6.4	6.7	5.2	6.4
Jefferson	6.9	6.5	6.4	5.6	6.4
Cardiff	5.7	5.9	7.1	6.4	6.3
Eclipse	6.4	6.8	6.3	5.4	6.2
Pick-855	6.8	5.9	6.4	5.8	6.2
Glade	7.6	5.8	6.3	5.2	6.2
Pick 8	5.9	6.5	6.7	5.7	6.2
Moonlight	5.8	6.4	6.4	6.1	6.2
Explorer	6.4	5.9	5.9	-	6.1
Seabring	6.8	6.1	6.3	4.9	6.0
Limousine	6.8	6.1	6.3	4.8	6.0
Award	7.1	6.2	5.9	4.8	6.0
Bartitia	7.2	5.9	6.4	4.3	6.0
Ascot	6.1	6.6	6.3	4.8	5.9
Absolute	7.2	6.1	5.6	4.8	5.9
Odyssey	6.6	6.5	5.5	5.0	5.9

<sup>&</sup>lt;sup>1</sup> Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>&</sup>lt;sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type

are experimental selections (not available to the general public).

Table 1. Quality ratings of Kentucky bluegrass entries for 1996 through 1999, continued.

	Turfgrass Quality Ratings <sup>1</sup>				
	Season	Season	Season	Season	Combined
	Average	Average	Average	Average	Season Ave.
Entry <sup>2</sup>	1996	1997	1998	1999	1996-1999
Chicago	6.5	5.9	5.3	-	5.9
Serene	5.5	6.1	6.7	5.2	5.9
ASP200	7.1	6.3	5.5	4.8	5.9
Arcadia	6.7	6.1	5.2	-	5.9
Allure	6.6	5.9	6.0	4.9	5.9
Blackstone	6.6	5.6	6.1	5.1	5.8
Shamrock	6.3	6.1	6.1	4.8	5.8
Livingston	6.4	5.8	5.4	5.7	5.8
Coventry	6.9	5.4	6.2	4.7	5.8
Ba 81-220	6.7	5.9	5.8	4.7	5.8
Chateau	6.6	5.7	5.9	4.7	5.7
Ba 73-373	6.5	5.9	5.7	4.8	5.7
Haga	6.3	5.9	5.6	5.0	5.7
Quantum Leap	7.0	6.1	5.3	4.3	5.7
H86-690	6.3	6.3	5.9	4.1	5.7
SR 2100	6.0	5.9	5.5	5.1	5.6
NuGlade	6.9	6.6	5.1	3.9	5.6
Misty	5.5	5.9	5.7	5.3	5.6
MED-1580	7.2	5.5	5.7	3.9	5.6
Fortuna	6.2	6.3	5.7	4.1	5.6
Raven	6.7	5.6	5.5	4.5	5.6
Impact	6.2	6.3	5.4	4.3	5.6
Champagne	6.0	5.6	5.8	4.8	5.6
SRX 2205	7.5	4.7	5.8	4.2	5.5
SR 2000	5.3	6.1	5.4	5.2	5.5
Marquis	5.9	5.7	5.8	4.5	5.5
Compact	6.4	5.0	5.9	4.6	5.5
Rugby II	6.7	6.0	4.9	4.2	5.5
Ba 81-270	5.9	5.5	6.0	4.4	5.5
Liberator	6.4	6.1	5.4	3.9	5.5
<b>Dragon</b>	5.7	5.5	5.6	4.9	5.4
Ba 70-060	6.1	5.9	5.2	4.5	5.4
Total Eclipse	6.6	6.3	5.1	3.7	5.4
BlueChip	6.3	6.1	5.4	3.9	5.4

<sup>&</sup>lt;sup>1</sup> Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>&</sup>lt;sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type are experimental selections (not available to the general public).

Table 1. Quality ratings of Kentucky bluegrass entries for 1996 through 1999, continued.

Turfgrass Quality Ratings<sup>1</sup> Season Season Season Season Combined Average Average Average Season Ave. Average Entry<sup>2</sup> 1996 1999 1997 1998 1996-1999 Ba 77-702 6.1 6.1 5.4 4.0 5.4 J-1555 6.0 5.4 4.8 5.4 Caliber 6.4 5.7 5.3 4.2 5.4 **Abbey** 6.3 5.7 5.2 4.2 5.4 Jewel 5.4 5.3 6.2 4.5 5.4 Classic 6.6 6.1 5.1 3.7 5.4 Midnight 6.3 6.3 5.1 3.7 5.4 Nimbus 7.0 5.8 5.3 3.2 5.3 VB 16015 5.8 5.6 5.4 4.4 5.3 5.5 5.2 4.3 Goldrush 6.2 5.3 6.3 5.7 5.0 4.1 5.3 Envicta **BAR VB 5649** 7.1 5.3 5.1 3.5 5.3 Ba 75-490 5.4 5.1 5.6 4.8 5.2 5.7 5.2 Baron 5.7 5.6 3.9 Platini 7.1 5.3 5.3 3.1 5.2 PST-BO-165 5.9 5.6 5.8 3.5 5.2 5.9 5.1 5.2 Baronie 6.3 3.3 Ba 76-197 5.7 5.4 5.6 3.9 5.1 6.2 5.3 5.7 3.3 5.1 Baruzo A88-744 4.7 5.7 5.4 4.6 5.1 **Sodnet** 6.1 5.1 5.0 4.0 5.1 Ba 81-058 6.5 5.0 4.5 4.1 5.0 **BAR VB 233** 7.2 5.4 4.5 2.9 5.0 LTP-620 4.9 5.2 5.3 4.4 5.0 6.1 5.5 4.7 3.4 4.9 Challenger 4.9 Ba 81-113 5.2 5.7 4.8 3.9 **ZPS-309** 6.5 5.3 4.6 2.8 4.8 NJ-54 4.7 4.7 4.8 4.2 4.6 5.2 5.2 4.5 Ba 75-163 5.6 3.6 Kenblue 4.1 3.9 4.9 4.4 4.3 **BAR VB 6820** 4.6 2.9 2.9 4.2 6.5 Sidekick 4.1 4.2 4.5 4.0 4.2 Lipoa 5.7 4.3 4.3 2.2 4.1 HV 242 2.7 2.2 6.7 4.6 4.1 Pepaya 5.5 4.1 3.2 2.9 3.9 0.9 0.9 LSD at 5% 0.9 1.0

<sup>&</sup>lt;sup>1</sup> Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>&</sup>lt;sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type are experimental selections (not available to the general public).

<sup>&</sup>lt;sup>3</sup> LSD = least significant difference. The LSD values at the bottom of each column represent the minimum difference between any two entries necessary to be 95 percent confident that the difference is not attributable to chance.

Table 2. Performance of Kentucky bluegrass entries for 1995-99. Trial established in September 1995 at the Joseph Valentine Research Center, University Park, PA.

Turfgrass Ratings<sup>1</sup> **Spring** Color Greenup Density Combined Combined Combined % Living Seedling Vigor Ground Cover Season Ave. Season Ave. Season Ave. Entry<sup>2</sup> 9/23/95 5/5/96 1996-99 1996-99 1996-99 SR 2109 4.0 89.7 5.4 5.0 7.2 **North Star** 77.3 2.3 7.4 7.3 2.3 Blacksburg 3.3 90.0 4.3 7.1 6.8 **Brilliant** 4.0 83.7 4.1 6.1 6.4 NJ 1190 1.0 85.0 5.3 4.6 7.2 85.7 4.3 5.7 6.7 Unique 4.3 Princeton 105 2.7 86.0 4.5 6.0 6.5 PST-P46 4.3 3.6 7.2 88.3 6.5 Conni 3.0 3.8 5.2 7.2 85.7 5.3 90.3 5.8 4.3 6.7 **LKB-95** Apollo 3.0 84.0 4.3 5.8 6.1 Wildwood 5.0 87.7 3.9 6.6 6.3 America 5.3 84.0 4.5 6.3 6.4 Showcase 2.7 81.7 3.7 6.0 5.8 NuStar 4.7 88.3 4.8 4.9 6.4 Rambo 3.7 87.7 5.1 5.3 7.6 ZPS-2183 2.3 87.3 5.4 6.5 5.7 NJ-GD 5.3 88.7 6.4 4.1 6.6 **BAR VB 3115B** 4.7 92.3 4.7 3.2 7.3 Jefferson 4.7 89.0 6.3 4.1 6.2 Cardiff 3.7 84.0 6.8 5.0 6.4 84.0 5.2 6.0 **Eclipse** 2.7 6.1 Pick-855 1.7 83.3 5.0 5.4 6.0 4.7 Glade 89.3 4.9 6.9 6.3 Pick 8 4.8 5.8 5.7 1.7 84.0 Moonlight 2.0 79.7 3.2 8.9 5.4 **Explorer** 84.3 4.4 6.2 6.2 2.3 Seabring 2.7 81.3 2.2 8.4 5.6 Limousine 4.7 92.0 4.5 8.3 4.6 Award 3.0 86.0 3.7 7.9 6.4 4.8 Bartitia 5.3 88.0 5.6 6.8 3.7 80.3 2.3 7.4 5.6 Ascot **Absolute** 3.7 88.0 4.5 7.8 6.8 Odyssey 3.0 86.7 4.0 7.6 6.3

<sup>1</sup> Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type are experimental selections (not available to the general public).

Table 2. Performance of Kentucky bluegrass entries for 1995-99, continued.

Turfgrass Ratings<sup>1</sup> **Spring** Greenup Color Density % Living Combined Combined Combined Seedling Vigor **Ground Cover** Season Ave. Season Ave. Season Ave. Entry<sup>2</sup> 9/23/95 1996-99 1996-99 1996-99 5/5/96 2.0 Chicago 86.3 5.5 6.3 6.2 Serene 75.3 3.8 5.6 6.3 1.0 **ASP200** 5.9 4.0 84.3 4.1 6.7 2.7 88.3 4.9 7.4 6.1 Arcadia 4.5 Allure 2.7 87.0 5.0 6.0 Blackstone 2.7 83.7 5.9 7.5 5.6 Shamrock 4.0 86.7 4.4 6.4 6.1 Livingston 3.3 86.3 5.6 5.0 5.3 Coventry 3.0 89.7 4.9 4.3 6.3 Ba 81-220 3.3 87.7 4.6 6.7 5.5 4.3 Chateau 3.3 86.3 4.1 6.2 Ba 73-373 3.7 87.7 4.5 6.3 5.4 5.1 3.8 Haga 6.0 89.0 6.1 Quantum Leap 3.3 87.3 4.0 7.1 6.0 H86-690 5.3 87.3 6.8 6.1 5.7 SR 2100 4.3 87.3 4.3 5.9 5.8 NuGlade 4.6 83.7 4.3 7.7 6.1 2.7 5.0 5.7 5.2 **Misty** 80.0 MED-1580 3.3 87.0 4.5 6.1 5.8 Fortuna 4.3 87.0 4.9 6.3 5.4 Raven 4.0 89.3 4.4 6.1 5.2 **Impact** 3.0 83.3 4.5 7.3 5.9 Champagne 3.3 6.4 4.8 6.0 88.7 SRX 2205 2.7 91.3 4.7 5.5 5.8 SR 2000 1.3 80.7 4.3 6.3 5.7 Marquis 5.0 86.7 4.6 6.4 5.3 4.8 5.8 **Compact** 3.3 84.3 2.6 Rugby II 2.7 85.7 4.3 7.7 6.2 Ba 81-270 2.3 84.7 3.3 4.4 5.8 Liberator 3.7 84.3 4.1 7.8 6.2 83.7 4.7 5.5 4.7 **Dragon** 3.0 2.3 4.8 Ba 70-060 85.0 4.6 6.4 Total Eclipse 3.7 86.7 4.0 8.2 6.1 2.3 **BlueChip** 87.3 4.4 7.2 5.3

Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>&</sup>lt;sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type are experimental selections (not available to the general public).

Table 2. Performance of Kentucky bluegrass entries for 1995-99, continued.

		Tur	fgrass Ratings <sup>1</sup>		
			Spring		
			Greenup	Color	Density
		% Living	Combined	Combined	Combined
	Seedling Vigor	Ground Cover	Season Ave.	Season Ave.	Season Ave.
Entry <sup>2</sup>	9/23/95	5/5/96	1996-99	1996-99	1996-99
Ba 77-702	4.0	84.0	3.8	6.2	5.1
J-1555	3.7	86.0	5.1	6.1	5.8
Caliber	3.0	85.7	5.4	4.6	5.8
Abbey	3.3	85.7	4.3	6.1	5.1
Jewel	3.0	83.0	4.8	4.3	5.7
Classic	4.0	91.7	5.8	3.6	5.7
Midnight	3.0	83.7	4.4	7.9	5.8
Nimbus	7.0	90.7	5.9	4.0	6.3
VB 16015	3.7	82.3	6.0	8.4	5.4
Goldrush	3.0	84.7	4.2	6.8	5.1
Envicta	3.7	87.3	4.1	6.5	5.2
Bariris	3.0	87.7	4.5	4.3	5.9
Ba 75-490	4.0	85.7	7.3	4.6	5.2
Baron	3.7	86.2	3.9	6.6	5.0
Platini	5.0	87.7	4.2	5.0	6.3
PST-BO-165	2.7	83.7	5.2	4.7	5.9
Baronie	6.7	88.3	5.1	3.8	5.6
Ba 76-197	3.3	86.3	4.6	3.3	5.7
Baruzo	3.3	84.0	4.9	6.8	5.9
A88-744	1.3	78.3	4.8	6.2	5.1
Sodnet	2.7	83.0	4.2	7.5	5.9
Ba 81-058	3.7	88.0	5.1	6.2	4.8
BAR VB 233	4.7	94.0	4.8	5.1	6.2
LTP-620	1.3	82.0	6.2	4.3	5.3
Challenger	3.0	83.7	5.5	5.8	5.6
Ba 81-113	2.7	84.3	4.4	6.3	4.5
ZPS-309	3.3	85.3	5.1	5.7	5.4
NJ-54	2.0	81.7	5.4	4.1	5.3
Ba 75-163	2.7	80.3	4.9	6.3	4.9
Kenblue	7.7	93.0	8.6	4.5	4.1
BAR VB 6820	2.0	79.0	3.1	6.8	5.5
Sidekick	2.7	82.3	4.8	5.3	4.3
Lipoa	5.7	82.7	4.9	5.9	5.7
HV 242	2.0	86.0	5.3	5.2	5.3
Pepaya	3.0	76.3	2.8	6.7	4.6
LSD at 5% <sup>3</sup>	1.5	6.1	0.9	0.7	0.7
<u></u>	1.3	0.1	0.7	0.7	J. /

<sup>&</sup>lt;sup>1</sup> Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>&</sup>lt;sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type are experimental selections (not available to the general public).

<sup>&</sup>lt;sup>3</sup>LSD = least significant difference. The LSD values at the bottom of each column represent the minimum difference between any two entries necessary to be 95 percent confident that the difference is not attributable to chance.

Table 3. Texture, seedheads, and disease ratings of Kentucky bluegrass entries from 1996 through 1999. Trial established in September 1995 at the Joseph valentine Research Center, University Park, PA.

	Turfgrass Ratings <sup>1</sup>				
	Texture	Seedheads			
	Combined	Combined			Necrotic
	Season Ave.	Season Ave.	Leaf Spot	Dollar Spot	Ring Spot
Entry <sup>2</sup>	1996-98	1996-1999	5/30/97	9/8/97	6/4/98
SR 2109	6.8	7.0	8.7	7.0	9.0
North Star	8.1	6.8	9.0	6.7	9.0
Blacksburg	6.6	7.0	7.3	7.0	9.0
Brilliant	6.8	5.8	8.0	9.0	9.0
NJ 1190	7.0	6.3	5.3	7.0	9.0
Unique	7.3	6.6	8.0	9.0	9.0
Princeton 105	6.4	8.0	7.3	6.7	9.0
PST-P46	6.6	6.7	8.3	7.0	9.0
Conni	7.7	7.2	9.0	5.7	8.7
LKB-95	8.2	8.1	7.7	5.0	9.0
Apollo	6.9	6.4	8.0	9.0	9.0
Wildwood	7.6	8.0	5.7	7.0	9.0
America	7.0	6.0	7.7	9.0	9.0
Showcase	6.9	6.3	8.7	9.0	9.0
NuStar	7.0	7.4	6.0	7.7	9.0
Rambo	7.2	6.7	7.3	6.3	9.0
ZPS-2183	5.8	7.3	6.7	7.3	9.0
NJ-GD	6.1	7.8	7.7	7.7	9.0
BAR VB 3115B	7.3	7.9	8.0	6.0	9.0
Jefferson	6.8	7.2	6.3	7.3	8.7
Cardiff	7.3	6.8	8.3	7.3	9.0
Eclipse	6.0	6.3	8.7	7.7	9.0
Pick-855	7.8	7.6	7.7	6.7	6.7
Glade	7.1	8.9	4.3	7.0	9.0
Pick 8	6.5	7.8	8.3	8.0	9.0
Moonlight	5.5	7.0	9.0	9.0	9.0
Explorer	6.9	7.3	8.3	7.3	9.0
Seabring	5.9	5.0	8.7	6.3	8.3
Limousine	8.3	6.9	8.3	5.7	8.7
Award	7.6	8.4	8.7	7.7	9.0
Bartitia	7.6	8.1	6.3	5.3	9.0
Ascot	5.7	4.2	9.0	8.3	9.0
Absolute	6.5	7.6	9.0	5.3	8.7
Odyssey	7.3	8.3	8.7	7.7	9.0

<sup>&</sup>lt;sup>1</sup> Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type are experimental selections (not available to the general public).

Table 3. Texture, seedheads and disease ratings of Kentucky bluegrass entries for 1996-99, continued.

	Turfgrass Ratings <sup>1</sup>					
	Texture Combined Season Ave.	Seedheads Combined	Leaf Spot	Dollar Spot	Necrotic Ring Spot	
Entry <sup>2</sup>	1996-98	1996-1998	5/30/97	9/8/97	6/4/98	
	- <b>-</b>	c 1		7.0	0.0	
Chicago	6.7	6.1	7.7	7.3	9.0	
Serene	5.8	6.1	8.3	7.6	9.0	
ASP200	6.3	7.9	7.3	7.3	7.7	
Arcadia	6.8	8.2	7.3	7.3	9.0	
Allure	5.9	6.2	6.3	6.7	9.0	
Blackstone	6.9	8.3	7.3	7.7	9.0	
Shamrock	6.4	7.1	8.3	6.7	9.0	
Livingston	5.0	6.6	7.0	8.3	9.0	
Coventry	5.8	5.8	5.3	5.7	9.0	
Ba 81-220	5.3	4.3	7.3	6.7	9.0	
Chateau	5.8	5.8	6.7	5.7	9.0	
Ba 73-373	5.7	4.9	8.3	6.3	9.0	
Haga	6.5	6.2	6.7	7.7	9.0	
Quantum Leap	7.3	7.6	9.0	8.0	9.0	
H86-690	7.3	8.2	6.7	7.3	9.0	
SR 2100	5.8	5.3	7.7	6.7	9.0	
NuGlade	7.3	8.3	8.3	8.0	9.0	
Misty	5.1	5.1	7.0	8.3	9.0	
MED-1580	7.0	6.3	5.0	6.3	9.0	
Fortuna	6.2	5.6	8.3	7.3	9.0	
Raven	5.3	5.2	8.7	6.0	9.0	
Impact	7.6	7.9	8.3	7.7	9.0	
Champagne	6.5	8.2	8.3	7.0	9.0	
SRX 2205	7.0	8.3	6.7	3.0	9.0	
SR 2000	4.3	7.1	8.7	7.7	9.0	
Marquis	5.8	6.0	8.7	7.0	9.0	
Compact	6.2	6.6	8.0	5.7	9.0	
Rugby II	7.2	8.3	8.7	7.0	9.0	
Ba 81-270	5.6	5.4	7.3	5.0	9.0	
Liberator	7.3	8.7	9.0	7.7	9.0	
Dragon	5.3	2.9	7.0	7.0	9.0	
Ba 70-060	5.4	4.0	7.0	7.7	9.0	
<b>Total Eclipse</b>	7.3	8.6	9.0	7.3	9.0	
BlueChip	6.3	4.9	8.7	7.0	9.0	
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<sup>&</sup>lt;sup>1</sup> Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>&</sup>lt;sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type

are experimental selections (not available to the general public).

Table 3. Texture, seedheads, and disease ratings of Kentucky bluegrass entries for 1996-99, continued.

	Turfgrass Ratings <sup>1</sup>					
Entry <sup>2</sup>	Texture Combined Season Ave. 1996-98	Seedheads Combined Season Ave. 1996-1998	Leaf Spot 5/30/97	Dollar Spot 9/8/97	Necrotic Ring Spot 6/4/98	
Ba 77-702	5.4	5.2	7.3	8.0	9.0	
J-1555	6.9	7.3	7.3	5.7	9.0	
Caliber	6.8	6.7	9.0	5.7	8.7	
Abbey	5.5	3.8	8.0	7.3	9.0	
Jewel	5.3	6.3	6.7	6.3	9.0	
Classic	6.2	4.8	6.3	8.0	9.0	
Midnight	7.6	8.6	8.7	7.3	9.0	
Nimbus	6.4	6.9	7.3	6.3	9.0	
VB 16015	6.3	6.1	9.0	7.3	9.0	
Goldrush	6.1	3.9	8.3	9.0	9.0	
Envicta	5.3	4.4	8.0	7.0	9.0	
BAR VB 5649	6.4	6.8	8.0	5.0	7.7	
Ba 75-490	6.2	7.9	2.0	6.7	9.0	
Baron	5.7	4.1	8.0	7.0	9.0	
Platini	6.7	6.7	9.0	4.3	8.0	
PST-BO-165	5.8	4.9	7.3	6.0	9.0	
Baronie	6.3	4.3	7.0	8.0	8.7	
Ba 76-197	6.2	4.7	6.3	7.3	9.0	
Baruzo	7.3	6.6	7.0	5.0	8.7	
A88-744	5.2	5.2	8.7	7.0	9.0	
Sodnet	7.1	6.0	8.3	5.0	9.0	
Ba 81-058	5.9	6.2	7.7	8.0	9.0	
BAR VB 233	6.5	7.1	7.7	4.3	5.0	
LTP-620	5.8	7.3	8.3	7.0	9.0	
Challenger	5.8	5.9	8.7	6.7	9.0	
Ba 81-113	5.1	2.4	8.0	8.3	9.0	
ZPS-309	6.3	6.0	8.7	4.7	7.7	
NJ-54	4.8	6.1	4.0	7.3	9.0	
Ba 75-163	5.4	6.4	7.7	6.3	9.0	
Kenblue	7.8	9.0	1.7	6.0	9.0	
BAR VB 6820	7.9	6.8	8.7	3.7	4.0	
Sidekick	3.4	2.9	6.7	8.0	9.0	
Lipoa	8.0	5.3	7.0	9.0	9.0	
HV 242	6.7	5.4	7.7	5.3	3.3	
Pepaya	6.8	3.8	9.0	4.3	2.7	
LSD at 5% <sup>3</sup>	0.5	0.8	1.5	1.3	1.0	

<sup>&</sup>lt;sup>1</sup> Refer to 'Assessments of Turfgrass Performance' for an explanation of performance criteria ratings.

<sup>&</sup>lt;sup>2</sup> Names that are in bold type are commercially-available cultivars, those that are in plain type are experimental selections (not available to the general public).

<sup>&</sup>lt;sup>3</sup>LSD = least significant difference. The LSD values at the bottom of each column represent the minimum difference between any two entries necessary to be 95 percent confident that the difference is not attributable to chance.