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United States Patent Meier et al.

Patent Number: [45]

P.P. 6,537

P.P. 6,538

P.P. 6,585

P.P. 7,831

P.P. 8,490

P.P. 9,036

P.P. 9,209

P.P. 9,611

Plant 10,080

Date of Patent:

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[54]	'BA 77	00' KENTUCKY BLUEGRASS
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[51]	Int. Cl.6	А01Н 5/00
[52]	U.S. Cl.	Plt./90.2
[58]	Field of S	earch Pit./90.2
[56]		References Cited
	U.	S. PATENT DOCUMENTS
P.I P.I	P. 3,156 5 P. 3,186 5	/1972 Fuchigami et al

P.P. 9,848	4/1997	Meier et al.	****************	Pit./90.2 Pit./90.2
Primary Examin	ner—Jaj	mes R. Fev		

[57] **ABSTRACT**

A variety of Kentucky Bluegrass having a medium to high level of resistance to a broad spectrum of serious diseases, including leaf spot, dollar spot, rusts, and necrotic ring spot; an attractive green color throughout the growing season; good early spring greening; medium to high quality turf formation under a wide variety of environmental conditions; a moderately wide blade; and a high level of seed yielding capacity.

1 Drawing Sheet

5/1972 Barenbrug et al. Plt./90.2

9/1988 Meier et al. Plt./90.2

BACKGROUND OF THE INVENTION

1. Field of the Invention

P.P. 6,280

The present invention relates to a new and distinct variety of Poa pretensis that has been designated Ba 77-700 Ken- 5 tucky Bluegrass.

2. Description of Related Art

Kentucky Bluegrasses have been disclosed in U.S. Plant Pat. No. 3,156, issued May 9, 1972; U.S. Plant Pat. No. 3,186, issued May 23, 1972; U.S. Plant Pat. No. 4,336, 10 issued Nov. 28, 1978; U.S. Plant Pat. No. 6,280, issued Sep. 6, 1988; U.S. Plant Pat. Nos. 6,537 and 6,538, issued on Jan. 17, 1989; U.S. Plant Pat. No. 6,585, issued Feb. 7, 1989; U.S. Plant Pat. No. 7,831, issued Mar. 17, 1992; U.S. Plant Pat. No. 8,490, issued Dec. 7, 1993; U.S. Plant Pat. No. 15 9,036, issued Jan. 3, 1995; U.S. Plant Pat. No. 9,209 issued Jul. 18, 1995; and pending U.S. plant pataent application Ser. No. 08/453,864, filed May 30, 1995 now U.S. Plant Pat. No. 9,611, Ser. No. 08/532,995, filed Sep. 22, 1995, now U.S. Plant Pat. No. 9,848 and Ser. No. 08/604,763 filed Feb. 20 23, 1996, as well as U.S. plant patent application Ser. No. 08/680,168, filed coextensively herewith.

SUMMARY OF THE VARIETY

Ba 77-700 plant material was selected from an old turf area on a farmstead in Union County, Ohio. After testing and observing this variety, it was determined to be a distinct variety, and it was asexually propagated by rhizomes, tillers and disseminules.

Seed of Ba 77-700 Kentucky Bluegrass was produced first at Marysville, Ohio and later at Gervais, Oreg. This seed was used to plant turf performance evaluation trials and later seed production fields. Asexual production of Ba 77-700 by propagules (tillers and rhizomes) and by disseminules (modified caryopses produced by apomixis) has consistently produced progeny plants indistinguishable from the mother plant. The apomixis level of Ba 77-700 is approximately 95% based upon examining seedling characteristics of

approximately 100 to 150 seedlings from different crop years in a growth chamber.

Ba 77-700 has a number of highly desirable characteristics including a medium to high level of resistance to Drechslera spp. that causes leaf spot, melting out and crown rot, Puccinia spp. that causes several types of rust infections, Schlerotinia homoeocarpa that causes dollar spot and Leptosphaeria korrae that causes necrotic ring spot. Ba 77-700 has an attractive leafy turf type growth habit; moderately wide leaf blades and an attractive dark green color which can be maintained throughout the entire growing season. Ba 77-700 demonstrates good early spring greening and winter color under mild winter conditions. Ba 77-700 is an overall good turfgrass performer as evidenced by medium to high scores for quality and color. Ba 77-700 has a high seed yield potential in the bluegrass seed production region of the northwestern United States.

In comparison with a number of other Kentucky Bluegrass varieties, Ba 77-700 seed is above average in length; and is average in width and rachilla length. The panicle is average in length; below average in width and whorl numbers and above average in branch numbers for both the lower and third whorls. Ba 77-700 has average size spikelets and glumes and below average number of florets. The peduncle is significantly longer and wider than many other grasses. The culm and top internode are of average length but the number of nodes on the culm are significantly lower.

Ba 77-700 has a flag leaf that is average in length, above average in width and significantly thicker than many other Kentucky Bluegrass varieties. The ligule and leaf margin hair are significantly longer and more abundant than many other Kentucky Bluegrass varieties. The vegetative leaf is average in length and width but above average in thickness. The ligule of the vegetative leaf is significantly shorter than many other grasses and the sheath color is above average.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a Ba 77-700 Kentucky Bluegrass panicle; FIG. 2 is a Ba 77-700 Kentucky Bluegrass seed; and FIG. 3 is a Ba 77-700 Kentucky Bluegrass plant during anthesis.

DETAILED DESCRIPTION OF THE VARIETY

77-700 Kentucky Bluegrass (*Poa pratensis* L.) is perennial with creeping rhizomes forming a dense turf. When plants overwinter in the field under freezing temperatures and are then brought into the greenhouse during late winter to continue growth undisturbed by clipping under moderate temperatures (60°-80° F.), culms are erect averaging 39.7 cm in length and 2.9 nodes per culm and the uppermost internode averages 9.7 cm in length. The peduncle averages 26.9 cm in length and 0.82 mm in width. The leaf averages 4.3 cm in length, 3.7 mm in width and 0.22 mm in thickness and the ligule 1.3 mm in length. The vegetative leaf averages 18.6 cm in length, 3.8 mm in width, 0.341 mm in thickness and a ligule length of 0.21 min.

The panicle averages 77.5 mm in length, 56.1 mm in width, and 8.7 whorls. The lowest whorl averages 4.0 branches and the third whorl from the bottom of the panicle averages 3.5 branches. A spikelet in the lowest whorl averages 4.6 mm in length, 2.4 mm in width, 3.3 florets and the outer glume and inner glume average 2.7 and 3.3 mm in length, respectively. A spikelet from the third whorl from the bottom of the panicle averages 4.8 mm in length, 2.6 mm in width, 3.4 florets, and the outer glume and inner glume averages 2.8 and 3.3 mm in length, respectively.

After the seed has been conditioned, the lemma has a generally smooth keel with occasional short hairs and a few long fine hairs at the base. The conditioned seed of Ba 77-700 averages 3.05 mm in length, 0.88 mm in width, a rachilla length of 0.82 mm and an average quantity of lemma hairs. The seed count for Ba 77-700 averages approximately 1,065,922 seeds per pound.

Comparisons of Ba 77-700 with other Kentucky Bluegrass varieties in terms of seed numbers per pound are shown in Table 1 as follows:

TABLE 1

Comparison of Seed Numbers Per Pound of Ba 77-700 and Other Kentucky Bluegrass Varieties at Marysville, OH

After Conditioning

	Seeds
Variety Ba77-700 Abbey Adelphi Allure America Ascot Baron Bristol Buckingham Cannon Chateau Coventry Eclipse Fairfax Georgetown Gnome Kelly Marquis Midnight Nassau Ram I Touchdown Victa Viva	Per Pound
Ba77-700	1,065,992
	1,003,037
•	1,383,976
	1,359,914
	1,659,824
	1,039,000
	1,051,693
	1,270,821
	978,000
	1,171,000
_	1,300,105
	1,246,200
-	1,335,668
_	1,250,997
	1,431,000
_	1,017,641
	921,166
	1,054,642
<u> </u>	1,227,000
	1,127,130
<u> </u>	1,214,000
	1,211,000
	1,038,298
	1,025,586

Ba 77-700 differs significantly morphologically from many other Kentucky Bluegrass varieties in regard to the following characteristics: (1) peduncle length and width; (2) culm nodes; (3) flag leaf thickness, ligule length and leaf margin hairs and (4) vegetative leaf ligule length.

Since environmental conditions such as soil and climate may influence morphological characteristics to some extent, comparisons of morphological characteristics of Ba 77-700 were made with other Kentucky Bluegrass varieties under like conditions and the comparisons are set forth in the following Tables 2–10:

TABLE 2

Morphological Comparison of Seed and Rachilla Measurements and Lemma Hair of Ba 77-700 and Other Kentucky Bluegrass Varieties at Marysville, OH After Conditioning

	S	eed	<u></u>	
Variety	Length mm	Width	Rachilla mm	Lemma* Hair
Ba 77-700	3.05	0.88	0.82	3.8
Abbey	2.97	0.89	0.80	3.8
Adelphi	2.70	0.84	0.65	4.4
Allure	2.78	0.86	0.70	4.7
America	2.40	0.68	0.68	2.8
Ascot	2.99	0.85	0.82	3.9
Baron	3.08	0.81	0.71	5.0
Bristol	2.94	0.88	0.73	4.3
Buckingham	3.23	0.89	0.88	4.2
Cannon	3.00	0.94	0.86	4.9
Chateau	2.81	0.86	0.71	4.5
Coventry	2.71	0.81	0.70	4.0
Eclipse	2.77	0.83	0.68	3.5
Fairfax	2.77	0.89	0.68	4.4
Georgetown	2.94	0.82	0.74	4.9
Gnome	2.78	0.83	0.75	4.1
Kelly	3.07	0.89	0.75	4.2
Marquis	2.97	0.87	0.83	4.7
Midnight	2.94	0.76	0.78	5.7
Nassau	3.07	0.86	0.68	3.4
Ram I	3.23	0.89	0.80	6.0
Touchdown	2.93	0.88	0.71	4.6
Victa	3.00	0.80	0.82	3.5
Viva	3.04	0.91	0.80	4.4
LSD (.05)	0.16	0.05	0.13	0.86

*Rating Scale: 0-9; 9 = longest row of hairs

TABLE 3

Morphological Comparison of Panicles, Whorl Number and Whorl Branches of Ba 77-279 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

	1	Panicles		Number of Branches		
Variety	Nodding*	Length mm	Width	Whorl	Lowest Whorl	Third Whorl
Ba 77-700	1.2	77.5	56.1	8.7	4.0	3.5
	1.6	80.4	59.3	9.3	3.8	3.3
Abbey	1.8	106.8	76.4	10.0	3.6	3.0
Adelphi	2.2	60.8	47.6	8.4	3.9	3.0
Allure	2.3	67.7	51.1	8.8	3.3	3.5
America	2.4	77.1	66.0	9.2	2.3	2.1
Ascot	2.2	92.6	71.0	10.0	3.4	2.8
Baron	2.0	85.5	61.5	8.4	2.8	2.7
Bristol		88.8	62.0	9.3	2.1	2.1
Buckingham	2.0	80.2	55.3	9.8	4.1	3.9
Cannon	1.1	_	57.3	8.5	3.3	2.8
Chateau	2.9	65.2	54.2	8.4	3.3	2.5
Coventry	2.5	64.0	74.0	10.7	3.3	2.1
Eclipse Fairfax	1.3 1.5	89.2 67.4	46.6	8.8	3.3	3.1

TABLE 3-continued

Morphological Comparison of Panicles, Whorl Number and Whorl Branches of Ba 77-279 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

	Panicles				Number of Branches	
Variety	Nodding*	Length mm	Width	Whorl Number	Lowest Whorl	Third Whorl
Georgetown	1.0	80.0	57.0	7.4	2.1	2.6
Gnome	1.1	80.6	56.0	10.6	4.6	3.9
Kelly	2.0	88.0	70.2	9.8	4.6	3.7
Marquis	1.1	82.0	63.0	10.3	3.9	3.6
Midnight	2.0	75.8	48.4	7.1	2.9	3.0
Nassau	2.2	91.2	68.6	10.0	2.5	2.1
Ram I	1.3	67.7	47.0	7.3	3.0	3.2
Touchdown	1.1	73.1	75.0	7.6	2.1	2.3
Victa	1.7	74.9	58.3	10.0	4.7	3.5
Viva	1.6	88.8	68.4	8.8	4.3	
LSD (.05)	0.68	7.35	8.62	0.66	0.72	3.7 0.50

^{*}Rate Scale: 1-9; 9 = most nodding

TABLE 4

Morphological Comparison of Spikelets and Florets of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

	<u> </u>	Sp	Number of Florets				
	Lowes	t Whorl	Third	Whorl	Per Spikelet		
Variety	Length mm	Width mm	Length	Width	Lowest Whorl	Third Whorl	
Ba 77-700	4.6	2.4	4.8	2.6	3.3	2.4	
Abbey	4.4	2.2	4.5	2.2	3.0	3.4 3.0	
Adelphi	4.6	2.2	4.8	2.2	4.4	4.4	
Allure	4.3	2.2	4.3	2.2	3.4	3.2	
America	4.6	2.2	4.4	2.3	4.5	4.3	
Ascot	5.4	2.6	5.3	2.9	3.1	3.1	
Baron	5.4	2.8	5.4	3.1	4.0		
Bristol	4.9	2.4	5.0	2.5	4.2	4.2	
Buckingham	5.6	3.2	5.6	3.3	4.1	4.5	
Cannon	4.7	2.4	4.6	2.6	2.7	4.1	
Chateau	4.4	2.4	4.4	2.4	3.4	2.7	
Coventry	4.4	2.2	4.5	2.4	3.4	3.5	
Eclipse	4.6	2.4	4.6	2.4	3.6	3.5	
Fairfax	4.6	2.3	4.7	2.4	3.2	3.6	
Georgetown	5. 0	2.3	5.0	2.6	4.8	3.3	
Gnome	4.6	2.5	4.6	2.9	3.2	4.9	
Kelly	5.1	2.5	5.2	2.8	3.7	3.2	
Marquis	4.3	2.2	4.4	2.3	· ·	3.8	
Midnight	5.3	2.5	5.5	2.4	3.1	2.9	
Nassau	4.7	2.6	4.8	3.0	4.4	4.7	
Ram I	5.4	2.6	5.3	2.8	4.2	4.3	
Touchdown	5.1	2.9	4.8		3.6	3.4	
Victa	4.5	2.5	4.5	2.8	4.1	4.0	
Viva	4.6	2.5	4.7	2.4	3.3	3.2	
LSD (.05)	0.41	0.35	0.38	2.6 0.35	2.6 0. 5 8	2.8 0.53	

^{*}Microscope measurements

TABLE 5

Morphological Comparison of Glumes of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

	Glume Length (mm)					Glume Hairs*			
	0	uter	<u>Ir</u>	ner		west horl			
	Lowest	Third	Lowest	Third		In-	_Third	Whorl	
Variety	Whorl	Whorl	Whorl	Whorl	Oute	t ner	Outer	Inner	
Ba 77-700	2.7	2.8	3.3	3.3	2.4	2.2	1.9	2.1	
Abbey	2.7	2.7	3.1	3.1	0.6	۸۸	1.0		
Adelphi	2.7	2.6	3.0	3.1		0.9	1.0	1.0	
Allure	2.6	2.7	3.0	3.0	0.6		1.1	1.9	
Am-	2.1	2.1	2.5	2.5	2.5	3.0	2.5	2.5	
erica	-		410	2.3	0.2	0.5	0.3	0.3	
Ascot	3.7	3.7	4.1	4.0	2.1	2.0	2.0	2.2	
Baron	3.1	3.2	3.6	3.7	4.8	3.0 4.4	2.0	2.3	
Bristol	2.8	3.0	3.3	3.4	1.0	2.2	4.2 0.8	4.6	
Buck-	3.5	3.3	3.9	3.8	2.6	3.2		2.2	
ingham		- 	0.5	5.0	2.0	3.2	2.2	2.8	
Cannon	2.8	2.9	3.2	3.1	1.7	2.3	2.1	2.2	
Chateau	2.8	2.9	3.1	3.2	1.6	2.6	2.0	2.3	
Cov-	2.7	2.8	3.1	3.1	1.5	2.7	1.6	1.8	
entry			-	0.1	1.5	2.7	1.0	2.4	
Eclipse	3.0	3.0	3.4	3.4	1.5	1.9	1.8	1.0	
Fairfax	2.8	2.9	3.1	3.2	2.2	2.2	_	1.9	
George-	2.8	2.8	3.1	3.1	1.7	2.7	2.1	3.1	
town				5.1	1.7	4.1	1.2	2.5	
Gnome	2.8	2.9	3.3	3.3	1.0	1.9	1.2	1.0	
Kelly	3.0	3.1	3.4	3.5	1.3	1.5	1.1	1.6	
Marquis	2.8	2.7	3.1	3.1	0.9	1.1	1.7	8.0	
Mid-	2.6	2.6	3.0	3.1	1.8	2.8	1.0	1.8	
night				0.12	1.0	2.0	1.0	2.4	
Nassau	2.6	2.7	2.9	3.0	2.1	2.6	4.2	4.4	
Ram I	2.9	3.0	3.6	3.5	1.1	2.3	0.7	-	
Touch-	3.3	3.3	3.8	3.8	0.7	2.1	1.1	1.2	
down				2,0	0.7	2.1	1.1	1.4	
Victa	2.8	2.7	3.1	3.1	Λο	1 1	1 4		
Viva	2.8	2.8	3.2	3.1	0.8	1.1	1.1	1.3	
LSD	0.23	0.22	0.22		1.7	1.3	1.3	2.0	
(.05)		~. <u>D</u> £	U. LL	0.23	0.9	0.9	0.9	0.9	

^{*}Ratings Scale: 0-9; 9 - most hairs

TABLE 6

Morphological Comparison of Flag Leaves of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

	Old Tarrantian Contract of the						
Variety	Length cm	Width mm	Thickness mm	Leaf Angle ^{1/}	Leaf Curve ^{2/}		
Ba 77-700	4.3	3.7	0.22	2.0	4.6		
Abbey	3.8	3.4	0.14	2.7	4.1		
Adelphi	5.7	3.4	0.18	5.2	5.0		
Allure	3.8	2.9	0.21	1.0	4.9		
America	4.3	2.6	0.21	4.6	5.0		
Ascot	4.7	3.5	0.29	2.1			
Baron	7.0	4.2	0.15	9.2	4.5		
Bristol	4.3	3.2	0.21	2.3	4.4		
Buckingham	5.3	3.4	0.23	1.4	5 .0		
Cannon	4.3	3.5	0.22		5.0		
Chateau	4.0	2.7	0.19	1.9	5.0		
Coventry	3.7	3.0	0.14	3.4	2.0		
Eclipse	3.9	3.2		0.7	4.3		
airfax	4.3	3.2	0.19	8.7	5.0		
Georgetown	5.7	2.8	0.20	1.0	4.9		
Gnome	4.5	3.5	0.22	1.9	5.0		
Kelly	4.8		0.19	4.3	5.0		
Marquis	5.5	4.1	0.18	3.1	4.4		
Aidnight		3.6	0.24	2.7	4.6		
Tassau	3.8	2.6	0.19	1.1	5.0		
	6.0	3.7	0.19	5.9	4.7		
lam I	3.5	3.1	0.19	1.0	4.8		

TABLE 6-continued

Morphological Comparison of Flag Leaves of Ba 77-700 and Other
Morphological Companion of Lang Comphons of Marveville OH
Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

Variety	Length cm	Width mm	Thickness mm	Leaf Angle ^{1/}	Leaf Curve ^{2/}
Touchdonn	4.1	2.7	0.16	3.4	4.1
Touchdown	3.9	3.7	0.27	2.1	4.6
Victa Viva	4.5	3.6	0.18	5.1	4.4
LSD (.05)	1.0	0.4	0.02	2.5	0.4

^{1/}Degrees from the stem

TABLE 7

Morphological Comparison of Flag Leaves (Ligule Length, Hairs on the Leaf Margin and Ligule, and Sheath Color) of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH.

		Hairs 1/		
Variety	Ligule Length (mm)	Leaf Margin	Li- gule	Sheath Color ^{2/}
Ba 77-700	1.3	1.5	2.3	1.8
Abbey	1.3	0.8	1.6	0.2
Adelphi	1.1	1.8	1.6	0.4
Allure	0.8	0.4	2.3	2.0
America	0.6	0.4	0.7	1.9
Ascot	1.5	0.6	0.7	0.9
Baron	1.2	1.0	3.8	2.6
Bristol	0.6	0.4	1.9	2.0
Buckingham	1.2	0.5	2.1	2.0
Cannon	1.3	0.4	3.6	1.5
Chateau	0.9	1.1	3.1	0.3
Coventry	0.9	0.8	1.7	2.0
Eclipse	1.1	1.0	1.0	0.2
Fairfax	1.0	0.1	2.5	1.7
Georgetown	0.6	0.6	2.0	2.0
Gnome	0.8	0.9	3.2	1.5
Kelly	1.5	1.1	2.5	2.2
Marquis	0.8	0.5	3.8	1.5
Midnight	0.4	0.4	0.3	2.0
Nassua	1.1	2.6	2.4	0.8
Ram I	0.7	0.5	1.3	2.0
Touchdown	1.1	1.0	1.0	7.7
Victa	1.3	1.0	0.8	0.5
Viva	1.5	0.4	2.2	0.5
LSD (.05)	0.17	0.47	0.7	0.76

¹/Rating Scale: 0-9; 0 = none; 9 = many ²/Rating Scale: 0-9; 9 = dark purple

TABLE 8

Morphological Comparison of Peduncles, Culms, Node Numbers Per Culm and Internode Length of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

	4 dr le ried ini					
Variety	Peduncle Length cm	Peduncle Width mm	Culm Length cm	Nodes Per Culm	Top Internode Length (cm)	
Ba 77-700	26.9	0.82	39.7	2.9	9.7	
Abbey	23.2	0.65	41.3	4.1	11.0	
Adelphi	24.5	0.66	40.0	4.0	10.4	
Allure	17.9	0.61	28.0	3.1	7.7	
America	16.2	0.62	31.8	3.1	11.0	
Ascot	20.0	0.64	36.3	3.0	12.7	
Baron	34.0	0.70	52.8	4.2	12.8	
	22.9	0.73	43.5	4.0	12.6	
Bristol Deceloire above	24.7	0.71	44.9	3.7	13.4	
Buckingham		0.81	39.5	3.1	10.8	
Cannon	24.3	_	38.9	4.4	9.9	
Chateau Coventry	20.7 19.6	0.61 0.49	34.7	4.5	7.9	

TABLE 8-continued

Morphological Comparison of Peduncles, Culms, Node Numbers Per Culm and Internode Length of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

Variety	Peduncle Length cm	Peduncle Width mm	Culm Length cm	Nodes Per Culm	Top Internode Length (cm)
Eclipse	23.7	0.66	39.2	4.9	9.9
Fairfax	21.0	0.60	31.9	3.2	7.2
Georgetown	21.7	0.68	37.5	3.2	11.1
Gnome	19.4	0.84	35.3	3.1	9.2
Kelly	29.4	0.75	46.6	3.6	11.8
Marquis	27.1	0.83	34.1	3.4	7.8
Midnight	20.5	0.72	29.5	2.8	7.6
Nassau	25.0	0.66	36.0	3.9	7.4
Ram I	22.2	0.69	30.5	2.5	6.6
Touchdown	23.6	0.52	38.0	4.0	8.4
	21.2	0.81	37.9	3.7	10.3
Victa	26.4	0.70	42.7	4.1	9.2
Viva LSD (.05)	3.2	80.0	3.3	0.4	1.9

TABLE 9

Morphological Comparison of Vegetative Leaves (Length, Width, Thickness, Angle and Curvature) of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

	Length	Width	Thickness	<u>Leaf</u>	
Variety	cm	mm	mm	Angle ^{1/}	Curve ^{2/}
Ba 77-700	18.6	3.8	0.34	61.6	7.7
Abbey	20.7	3.6	0.28	51.3	7.4
Adelphi	19.4	3.7	0.28	67.0	4.6
Allure	18.1	3.5	0.30	53.0	6.2
America	21.4	3.1	0.32	66.0	6.4
Ascot	17.4	3.4	0.35	67.9	5.5
Baron	18.2	4.3	0.29	35.0	4.4
Bristol	18.2	3.7	0.32	65.5	6.9
Buckingham	18.9	4.5	0.36	50.9	5.0
Cannon	22.1	3.3	0.30	62.5	8.2
Chateau	23.1	3.3	0.33	39.7	5.4
Coventry	23.4	3.6	0.25	63.0	7.3
Eclipse	20.3	4.4	0.30	65.5	5.4
Fairfax	21.9	3.5	0.28	51.7	8.3
Georgetown	19.5	3.6	0.29	56.7	5.8
Gnome	18.2	2.9	0.29	43.2	6.6
Kelly	22.8	3.9	0.30	55.5	7.0
Marquis	19.7	3.7	0.38	46.4	7.8
Midnight	19.5	3.5	0.31	63.3	5.0
Nassau	16.3	3.7	0.29	63.2	4.9
Ram I	19.1	3.6	0.27	70.8	6.5
Touchdown	16.7	3.7	0.24	51.3	4.0
Victa	21.5	3.6	0.36	56.3	6.7
Viva	22.9	3.8	0.40	53.0	7.1
LSD (.05)	3.50	0.43	0.04	15.9	1.5

^{1/}Degrees from the stem

TABLE 10

Morphological Comparison of Vegetative Leaves (Ligule Length, Hairs on the Leaf Margin and Ligule, Sheath Roughness and Color) of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

-	Ligule	Ha	irs ^{1/}	_	
Length Variety mm	Leaf	Leaf	Sheath	Sheath	
	Ligule	Margin	Roughness ^{2/}	Color ^{3/}	
Ba 77-700	0.21	3.1	2.0	7.3	1.4
Abbey	0.32	4.4	2.8	7.7	0.0

²Rating Scale: 1-9; 1 = curves up; 5 = no curve; 9 = curves down

²/Rating scale: 1-9; 1 = curves up; 5 = no curve; 9 = curves down

TABLE 10-continued

Morphological Comparison of Vegetative Leaves (Ligule Length, Hairs on the Leaf Margin and Ligule, Sheath Roughness and Color) of Ba 77-700 and Other Kentucky Bluegrass Varieties in the Greenhouse at Marysville, OH

	Ligule	Ha	irs¹/		
Variety	Length mm	Leaf Ligule	Leaf Margin	Sheath Roughness ^{2/}	Sheath Color ^{3/}
Adelphi	0.34	2.6	3.4	8.8	0.0
Allure	0.14	2.0	1.6	8.3	1.9
America	0.12	1.7	2.1	8.4	2.0
Ascot	0.22	1.5	2.0	8.8	0.2
Baron	0.33	4.6	3.6	7.4	0.4
Bristol	0.12	2.6	3.0	8.9	2.0
Buckingham	0.14	3.3	2.6	8.7	2.0
Cannon	0.16	3.2	0.7	8.2	2.0
Chateau	0.22	3.3	3.1	7.8	0.5
Coventry	0.32	3.1	2.4	8.1	0.3
Eclipse	0.38	2.8	2.6	9.0	0.2
Fairfax	0.14	2.7	1.4	8.1	1.7
Georgetown	0.14	2.5	2.4	8.5	2.0
Gnome	0.23	1.6	0.8	7.5	1.4
Kelly	0.34	4.6	2.4	8.8	0.0
Marquis	0.21	3.6	1.1	6.8	1.1
Midnight	0.10	1.3	1.6	7.7	2.0
Nassau	0.34	2.5	3.3	8.5	1.4
Ram I	0.09	1.8	2.0	7.7	2.0
Touchdown	0.29	1.4	1.3	7.9	8.0
Victa	0.26	2.3	1.7	7.9	0.1
Viva	0.23	5.2	4.2	8.5	0.0
LSD (.05)	0.04	0.79	0.70	0.89	0.57

Rating Scale: 0-9; 0 = none; 9 = many

Ba 77-700 has performed well as exhibited by medium to high turf quality ratings throughout the United Sates in comparison to other Kentucky Bluegrass varieties. Ba 77-700 has an attractive green color which can be maintained throughout the growing season.

With regard to a comparative analysis conducted for purposes of determining color of Ba 77-700 plants relative to other Kentucky Bluegrass varieties, readings were taken of the vegetative color of Ba 77-700 during mid-October while the turf was actively growing with adequate nutrient and water availability. The readings were taken in full sun with several actively growing leaves being compared, one at a time, utilizing color chips from the Munsell Book of Color as a reference. On this basis, the color of Ba 77-700 was determined to be 5 GY 4/6. During the same time period, the color of similar leaves of other Kentucky Bluegrass varieties were determined by the same procedure to be as follows: Victa — 5 GY 4/4; Bristol — 7.5 GY 4/4; Ascot — 5 GY 4/4; Midnight — 7.5 GY 4/4; Abbey — 5 GY 4/6; and Buckingham — 7.5 GY 4/4. However, it should be noted that the general apparent color of turf does not always correlate directly with the color of the individual actively growing leaves within the turf and that turf color varies with nutrient level and time of year with some varieties being darker or lighter green depending on such factors.

Ba 77-700 demonstrates good early spring greening and winter color in mild winter climates.

Comparisons of Ba 77-700 with other varieties for quality, genetic color, spring greening and winter color, living ground cover, leaf texture and seedling vigor are set forth hereinafter in Tables 11-17:

TABLE 11

A Comparison of Quality of Ba 77-700 and Other Kentucky Bluegrass Varieties at Five (5) Test Locations in the U.S.

	Locations					
Variety	Fort Collins, Co	Lexington, Kentucky	Adelphia, NJ	Kingston, RI	Beltsville,	
Ba 77-700	6.3	6.5	4.8	5.7	6.5	
A-34	5.2	5.8	5.2	5.6	6.7	
Abbey	6.3	6.2	4.7	5.7	6.3	
Able I	6.3	6.9	6.2	5.8	5.9	
Allure	5.9	5.4	4.9	5.3	6.5	
Ascot	6.7	6.5	5.9	5.7	6.0	
Banff	6.1	5. 8	5.6	5.0	5.2	
Baron	5.3	6.0	4.6	5.7	6.5	
Buckingham	5.6	5.9	5.0	4.6	5.3	
Challenger	6.1	6.6	5.4	5.2	6.6	
Cannon	6.1	6.0	4.9	5.4	6.4	
Classic	5.8	5.8	5.5	5.4	5.6	
Coventry	6.1	5.6	4.7	5.0	6.6	
Eclipse	6.6	6.5	6.3	6.1	6.8	
Estate	5.8	4.8	5.0	5.2	6.3	
Fairfax	5.9	5.1	5.1	5.3	6.8	
Georgetown	5.8	5 .9	5.1	5.3	5.3	
Glade	6.1	6.4	5.1	5.8	6.7	
Gnome	5.9	6.2	4.6	5.4	6.5	
Haga	5.6	6.0	4.8	5.2	6.0	
Kelly	5.9	6.1	4.5	5.2	6.4	
Kenblue	3.7	5.0	2.4	4.9	5.4	
Liberty	6.2	5.6	5.7	5.3	5.9	
Marquis	6.2	6.9	4.5	5.6	6.4	
Merion	5.1	5.9	4.0	5.4	5.7	
Merit	6.1	6.5	4.2	5.7	6.3	
Midnight	7.1	8.2	6.7	5.1	7.5	
Monopoly	4.7	5.5	5.0	5.5	5.9	
Nassau	5.8	6.5	4.7	5.2	4.9	
Ram I	6.1	5.0	4.6	5.7	6.9	
South Dakota	4.1	4.3.	2.3	4.6	5.2	
Touchdown	6.4	5.8	5.3	5.2	5.2 6.4	
Viva	6.1	6.3	4.2	5.9	6.3	
LSD (.05)	0.7	1.0	0.7	0.7	0.8	

Quality Rating Scale: 1-9; 9 = ideal turf

TABLE 12

A Comparison of Genetic Color of Ba 77-700 and Other Kentucky Bluegrass Varieties in Three Test (A-C) Conducted at Ten (10) Locations in the US

 -	TESTS (Annual Means)			
Variety	A	В	C	
Ba 77-700	5.7	5.5	5.8	
A-34	5.0	5.4	4.6	
Abbey	5.6	5.9	5.8	
Able I	6.6	6.8	6.8	
Allure	5.7	5.2	5.6	
Ascot	6.9	6.8	7.2	
Banff	5.1	6.0	5.5	
Baron	6.0	6.0	5.9	
Buckingham	7.0	7.2	7.2	
Cannon	6.0	5.7	6.4	
Challenger	6.0	6.2	5.9	
Classic	5.2	5.9	5.2	
Coventry	5.9	5.6	5.8	
Eclipse	6.3	6.6	6.4	
Estate	5.8	5.3	5.3	
Fairfax	6.0	5.4	5.4	
Georgetown	5.2	6.1	5.3	
Glade	6.7	6.3	6.7	
Gnome	6.0	6.1	5.8	
Haga	5.1	5.8	5.3	
Kelly	5.6	5.7	6.1	

²Rating Scale: 1-9; 1 = rough; 9 = smooth

³/Rating Scale: 0-9; 0 = no color; 9 = dark purple color

TABLE 12-continued

A Comparison of Genetic Color of Ba 77-700 and Other Kentucky Blue-
grass Varieties in Three Test (A-C) Conducted at Ten (10) Locations
in the US

	TESTS (Annual Means)		
Variety	A	В	C
Kenblue	4.6	5.0	5.3
Liberty	5.9	4.0	6.1
Marquis	6.1	6.1	6.4
Merion	5.7	5.8	5.4
Merit	5.7	5.7	6.2
Midnight	7.1	7.3	7.7
Monopoly	4.8	4.9	4.8
Nassau	6.0	6.6	6.5
Ram I	6.7	5.9	6.6
South Dakota	4.5	4.8	4.7
Touchdown	5.5	5.5	6.3
Viva	5.5	5.5	5.9
LSD (.05)	0.5	0.4	0.7

Rating Scale: 1-9; 9 = dark green.

TABLE 13

Variety	Spring Greenup
Ba 77-700	6.0
A-34	6.0
Abbey	5.3
Able I	6.3
Allure	4.3
Ascot	3.7
Banff	3.7
Baron	4.0
Buckingham	5.0
Cannon	5.3
Challenger	5.3
Classic	5.3
Coventry	4.3
Eclipse	4.7
Estate	5.0
Fairfax	4.0
Georgetown	4.7
Glade	4.0
Gnome	4.7
Haga	5.7
Kelly	4.0
Kenblue	3.0
Liberty	4.7
Marquis	5.0
Merion	3.7
Merit	4.0
Midnight	2.7
Monopoly	4.7
Nassau	5.3
Ram I	5.0
South Dakota	4.0
Touchdown	5.7
Viva	5.0
LSD (.05)	1.8

Spring Greenup Rating Scale: 1-9; 9 = Completely green

TABLE 14

Variety	A ^{1/}	B ^{2/}
Ba 77-700	5.0	5.0
A-34	6.7	2.0
Abbey	1.7	6.3
Able I	6.3	3.3
Allure	6.0	6.3
Ascot	4.7	4.3
Banff	9.0	3.7
Baron	2.3	5.7
Buckingham	5.3	6.3
Cannon	2.3	6.0
Challenger	7.3	4.3
Classic	9.0	3.3
Coventry	7.0	3.7
Eclipse	4.7	3.7
Estate	5.7	5.0
Fairfax	6.0	4.5
Georgetown	8.0	3.3
Glade	1.7	3.7
Gnome	1.0	5.7
Haga	9.0	3.0
Kelly	2.3	5.7
Kenblue	1.3	3.0
Liberty	7.3	3.3
Marquis	2.0	5.0
Merion	6.7	3.3
Merit	3.7	6.0
Midnight	3.0	1.7
Monopoly	4.3	2.7
Nassau	7.7	5.0
Ram I	1.7	3.7
South Dakota	2.3	4.0
Touchdown	3.0	2.3
Viva	2.3	4.0
LSD (.05)	1.9	2.1

Winter Color Rating Scale: 1-9; 9 = Complete color retention ¹/Location of Test A: North Brunswick, NJ

TABLE 15

A Comparison of Percent	Living Ground Cover in the Fall of Ba 77-700
and Other Kentuck	y Bluegrass Varieties at Haymarket, VA

Variety	% Ground Cover	
Ba 77-700	70.0	
A-34	30.0	
Abbey	68.3	
Able I	28.3	
Allure	83.3	
Ascot	11.7	
Banff	21.7	
Baron	71.0	
Buckingham	30.0	
Cannon	75.0	
Challenger	60.0	
Classic	31.7	
Coventry	65.0	
Eclipse	48.3	
Estate	71.7	
Fairfax	70.0	
Georgetown	33.3	
Glade	68.3	
Gnome	70.0	
Haga	53.3	
Kelly	83.3	
Kenblue	94.3	
Liberty	33.3	
Marquis	88.3	
Merion	81.7	

²/Location of Test B: Post Falls, ID

TABLE 15-continued

A Comparison of Percent Living Ground Cover in the Fall of Ba 77-700
and Other Kentucky Bluegrass Varieties at Haymarket, VA

Variety	% Ground Cover
Merit	71.7
Midnight	38.3
Monopoly	85.0
Nassau	36.7
Ram I	65.0
South Dakota	86.0
Touchdown	33.3
Viva	85.0
LSD (.05)	29.9

TABLE 16

A Comparison of Leaf Texture of Ba 77-700 and Other Kentucky Bluegrass Varieties in Two Tests (A-B)			ky
Variety	A ¹ /	B ² /	
Ba 77-700	4.0	4.0	-
Abbey	5.0	4.3	
Able I	5.7	6.3	
Allure	4.3	4.0	
Ascot	5.3	6.0	
A-34	4.3	5.2	
Banff	5.3	5.2	
Baron	5.0		
Buckingham	4.0	4.2 3.7	
Cannon	4.0		
Challenger	5.0	4.0	
Classic	5 .3	4.5 5.2	
Coventry	5.0	5.3	
Eclipse	5.7	4.2	
Estate	4.3	5.7	
Fairfax	4.7	3.8	
Georgetown	6.0	4.0	
Glade	5 .0	4.8	
Gnome	5.3	4.6	
Haga	5.7	4.2	
Kelly	4.3	5.2	
Kenblue	6.0	4.0	
Liberty		5.8	
Marquis	5.0	4.7	
Merion	4.3	4.2	
Merit	4.0	4.2	
Midnight	4.7 6.7	4.0	
Monopoly	6.7 5.0	6.0	
Nassau	5.0 5.0	4.5	
Ram I	5.0 5.0	4.3	
South Dakota	5.0 2.7	4.8	
Touchdown	3.7 5.2	4.8	
Viva	5.3 4.2	5.8	
LSD (.05)	4.3	4.0	
——————————————————————————————————————	0.9	0.8	

Leaf Texture Rating Scale: 1-9; 9 = very fine

TABLE 17

Variety	Seedling Vigor (Mean)
3a 77-700	6.8
-34	6.0
Abbey	6.4
ble I	6.3

TABLE 17-continued

A Comparison of Seeding Vigor of Ba 77-700 and Other Kentucky Bluegrass Varieties at Six Locations in The U.S. and Canada¹

Variety	Seedling Vigor (Mean)
Allure	6.2
Ascot	6.2
Banff	7.7
Baron	6.7
Buckingham	5.3
Cannon	6.3
Challenger	5.6
Classic	7.1
Coventry	6.1
Eclipse	6.1
Estate	6.1
Fairfax	6.4
Georgetown	7.0
Glade	6.7
Gnome	6.3
Haga	7.1
Kelly	6.6
Kenblue	7.4
Liberty	6.4
Marquis	6.3
Merion	2.6
Merit	6.4
Midnight	5.4
Monopoly	7.1
Nassau	6.4
Ram I	6.5
South Dakota	6.7
Touchdown	5.8
Viva	· 6.3
LSD (.05)	0.3

Rating Scale: 1-9; 9 = Maximum vigor.

Locations: Fort Collins, CO; Post Falls, ID; North Brunswick, NJ; Adelphia, NJ; Richmond Hills, Ontario; pooled data from Halsey, Hubbard and Gervais, OR.

Turf diseases are one of the major causes of inconsistent and poor turf performance. Ba 77-700 has been found to have a medium to high level of resistance to leaf spot and melting out caused by Drechslera poae (formerly called Helminthosporium vagans). Ba 77-700 furthermore has been found to have a medium to high level of resistance to dollar spot caused by Sclerotinia homoecarpa and to several rust diseases caused by Puccinia spp. as well as to necrotic ring spot caused by Leptosphaeria korrae.

Comparisons of disease incidence of Ba 77-700 as compared with other Kentucky Bluegrass varieties in regard to leaf spot, dollar spot, rusts and necrotic ring spot are presented in Tables 18-23 as follows:

TABLE 18

A Comparison of Leaf Spot Incidence in Ba 77-700 and Other Kentucky Bluegrass Varieties in Two Tests (A-B) Conducted at Four Locations in the U.S.

		Means
Variety	Test A ¹	Test B ²
3a77-700	7.2	5.7
A-34	7.2	5. 4
Abbey	7.8	5.1
Able I	7.8	_
Allure	7.7	7.1
Ascot	8.1	5.8
3anff	4.8	7.4
Baron	7.1	5.9 5.4

¹/Test Location: Martinsville, NJ

²⁴Test Location: Martinsville, NJ; and pooled data from Halsey, Hubbard and Gervais, OR

TABLE 18-continued

A Comparison of Leaf Spot Incidence in Ba 77-700 and Other Kentucky Bluegrass Varieties in Two Tests (A-B) Conducted at Four Locations in the U.S.

		Means	
/aricty	Test A1/	Test B ^{2/}	
uckingham	8.3	6.8	
Cannon	8.0	5.8	
hallenger	0.8	6.9	
Classic	7.8	5.4	
Coventry	6.8	5.8	
iclipse	7.9	7.4	
Estate	7.9	5.9	
airfax	6.6	4.9	
Jeorgetown	8.0	6.3	
Glade	4.8	4.8	
nome	7.6	5.7	
laga	7.2	5.9	
Kelly	7.2	5.1	
Kenblue	1.2	1.8	
Liberty	8.1	6.8	
Marquis	7.4	5.6	
Merion	0.8	7.3	
Merit	7.4	5.4	
Midnight	8.1	6.6	
Monopoly	7.1	5.2	
Nassau	8.2	6.2	
Ram I	3.4	4.9	
South Dakota	2.2	1.8	
Touchdown	7.4	6.3	
Viva	7.4	5.1	
LSD (.05)	0.9	0.7	

Rating Scale: 1-9; 9 = no disease

¹/Locations: Post Falls, ID; North Brunswick and Adelphia, NJ

TABLE 19

A Comparison of Dollar Spot Disease Incidence of Ba 77-700 and Other Kentucky Bluegrass Varieties in Two Tests Conducted in the U.S.

7.0 6.7 6.8 6.4 7.8 6.4 6.9 7.9	7.0 6.0 6.3 6.1 5.3 7.0 6.2
6.7 6.8 6.8 6.4 7.8 6.4 6.9 7.9	6.0 6.3 6.1 5.3 7.0 6.2
6.8 6.4 7.8 6.4 6.9 7.9	6.3 6.1 5.3 7.0 6.2
6.8 6.4 7.8 6.4 6.9 7.9	6.1 5.3 7.0 6.2
6.8 6.4 7.8 6.4 6.9 7.9	5.3 7.0 6.2
6.4 7.8 6.4 6.9 7.9	7.0 6.2
7.8 6.4 6.9 7.9	6.2
6.4 6.9 7.9	
6. 9 7.9	
7.9	6.8
	4.8
6.6	6.4
6.4	4.7
7.4	6.3
5.9	5.9
7.5	7.2
5.3	5.6
5.8	6.0
6.9	6.1
7.0	6.4
6.7	6.1
6.3	6.2
7.3	6.3
6.8	6.8
7.3	6.8
6.8	6.7
6.9	6.1
11.7	6.7
	6.6
6.8	6.7

TABLE 19-continued

A Comparison of Dollar Spot Disease Incidence of Ba 77-700 and Other Kentucky Bluegrass Varieties in Two Tests Conducted in the U.S.

	Means	
Variety	Test A ^{1/}	Test B ^{2/}
Vassau	7.4	6.7
Ram I	6.0	4.9
South Dakota	7.3	5.8
Touchdown	6.8	6.1
Viva	7.1	6.2
LSD (.05)	1.1	0.8

Rating Scale: 1-9; 9 = no disease.

1/Locations: Urbana, IL; Adelphia, NJ; Kingston, RI; Haymarket, VA

²/_{Locations:} Urbana, IL; Silver Spring, MD; Kingston, RI

TABLE 20

A Comparison of Stem Rust Disease Incidence in Ba 77-700 and Other Kentucky Bluegrass Varieties at Adelphia, NJ

Variety	Stem Rust
Ba 77-700	7.3
A-34	4.3
Abbey	7,0
Able I	3.3
Allure	6.3
Ascot	7.3
Banff	7.7
Baron	7.0
Buckingham	5.7
Cannon	7.3
Challenger	4.0
Classic	8.0
Coventry	6.7
Eclipse	4.0
Estate	6.3
Fairfax	6.3
Georgetown	8.7
Glade	7.7
Gnome	7.0
Haga	0.8
Kelly	8.0
Kenblue	5.7
Liberty	7.7
Marquis	6.7
Merion	1.0
Merit	6.3
Midnight	8.0
Monopoly	6.3
Nassau	8.0
Ram I	8.0
South Dakota	4.3
Touchdown	2.3
Viva	6.7
LSD (.05)	1.4

Rating Scale: 1-9; 9 = no disease

TABLE 21

A Comparison of Leaf Rust Disease Incidence in Ba 77-700 and Other Kentucky Bluegrass Varieties at Kingston, R.I.

Variety	Leaf Rust
Ba 77-700	8.0
A-34	6.0
Abbey	6.3
Able I	7.0
Allure	6.0
Ascot	6.0
Banff	7.0

²Locations: Post Falls, ID; North Brunswick and Adelphia, NJ; Marysville, OH

TABLE 21-continued

A Comparison of Leaf Rust Disease Incidence in Ba 77-700 and Oth	ጊራታ -
Kentucky Bluegrass Varieties at Kingston, R.I.	 -1

Variety	Leaf Rust	
Baron	8.3	-
Buckingham	6.7	
Cannon	6.3	
Challenger	5.7	
Classic	8.7	
Coventry	7.0	
Eclipse	5.7	
Estate	6.3	
Fairfax	6.0	
Georgetown	7.7	
Glade	7.0	
Gnome	6.7	
Haga	7.0	
Kelly	5.0	
Kenblue	6.7	
Liberty	7.3	
Marquis	6.3	
Merion	2.3	
Merit	6.0	
Midnight	6.0	
Monopoly	5.3	
Nassau	7.0	
Ram I	6.7	
South Dakota	6.7	
Touchdown	3.7	
Viva	5.7	
LSD (.05)	2.4	

Rating Scale: 1-9; 9 = no disease.

TABLE 22

A Comparison of Stripe Rust Disease Incidence in Ba 77-700 and Ot	her
Kentucky Bluegrass Varieties in Tests Conducted at Three Locations	,1/

	The Conducted at THESE LOCA	UK
Variety	Stripe Rust	
Ba 77-700	5.0	_
A-34	5.0	
Abbey	4.3	
Able I	6.0	
Allure	4.3	
Ascot	6.0	
Banff	6.0	
Baron	6.0	
Buckingham	5.7	
Cannon	4.7	
Challenger	5.3	
Classic	6.3	
Coventry	5.0	
Eclipse	6.0	
Estate	5.7	
Fairfax	5.7	
Georgetown	6.3	
Glade	3.0	
Gnome	4.7	
Haga	6.3	
Kelly	5.0	
Kenblue	3.3	
Liberty	5.3	
Marquis	5.3	
Merion	3.7	
Merit	5.0	
Midnight	4.7	
Monopoly	5.3	
Nassau	5.3	
Ram I	6.0	
South Dakota	4.0	

TABLE 22-continued

A Comparison of Stripe Rust Disease Incidence in Ba 77-700 and Other Kentucky Bluegrass Varieties in Tests Conducted at Three Locations 1/

Variety	Stripe Rust
Touchdown	3.0
Viva	5.0
LSD (.05)	
	1.2

Rating Scale: 1-9; 9 = no disease

TABLE 23

A Comparison of Necrotic Ring Spot Incidence in Ba 77-700 and Other Kentucky Bluegrass Varieties at Post Falls, ID

Variety	Nocrotic Ring Spot	
Ba 77-700	7.3	
A-34	6.0	
Abbey	7.3	
Able I	7.3	
Allure	3.3	
Ascot	8.0	
Banff	7.7	
Baron	7.3	
Buckingham	8.7	
Cannon	7.0	
Challenger	8.3	
Classic	6.7	
Coventry	5.0	
Eclipse	7.7	
Estate	4.7	
Fairfax	3.5	
Georgetown		
Glade	7.7	
Gnome	8.3 7.3	
Haga		
Kelly	7.7	
Kenblue	7.3 5.7	
Liberty	5.7	
Marquis	6.7	
Merion	7.7	
Merit	5.3	
Midnight	7.7	
Monopoly	8.3	
Nassau	6.7	
Ram I	7.7	
South Dakota	7.0	
Touchdown	7.0	
Viva	6.3	
LSD (.05)	7.7 1.9	

Rating Scale: 1-9; 9 = no disease

Ba 77-700 has shown good drought tolerance and seed yielding capability. Comparisons for drought tolerance and seed yields of Ba 77-700 with other Kentucky Bluegrasses are presented in Tables 24-26.

TABLE 24

A Comparison of Drought Tolerance of Ba 77-700 and Other Kentucky
Bluegrass Varieties at Haymarket, VA

Variety	Drought Tolerance	
Ba77-700	5.3	
A-34	3.0	
Abbey	4.3	
Able I	3.3	
Allure	4.0	
Ascot	4.0	
Banff	3.3	

^{1/}Pooled data from Halsey, Hubbard and Gervais, Oregon.

TABLE 24-continued

A Comparison of D	ought Tolerance of Ba 77-700 and Other	Kentucky
Bh	egrass Varieties at Haymarket, VA	

Variety	Drought Tolerance	
Baron	4.0	
Buckingham	4.0	
Cannon	4.0	
Challenger	3.3	
Classic	3.7	
Coventry	3.7	
Eclipse	4.3	
Estate	4.3	
Fairfax	4.3	
Georgetown	3.7	
Glade	5.0	
Gnome	3.7	
Haga	3.0	
Kelly	4.0	
Kenblue	4.0	
Liberty	3.0	
Marquis	4.7	
Merion	3.7	
Merit	4.7	
Midnight	3.7	
Monopoly	4.0	
Nassau	3.3	
	4.3	
Ram I	4.0	
South Dakota	4.0	
Touchdown	4.7	
Viva	1.1	
LSD (.05)	# * *	·

Dormancy Rating Scale: 1-9; 9 = no dormancy.

TABLE 25

mparison of Drought Bluegrass	Recovery of Ba 77-70 Varietics in Two Tests	covery of Ba 77-700 and Other Kerietics in Two Tests (A-B)	
Variety	Test A ^{1/}	Test B ^{2/}	
Ba 77-700	4.8	3.0	
A-34	3.3	1.0	
Abbey	4.5	2.7	
Able I	4.3	1.3	
Allure	4.7	5.3	
Ascot	3.2	1.0	
Banff	3.5	1.0	
Baron	5.5	4.0	
Buckingham	2.8	2.0	
•	4.3	2.7	
Cannon	3.5	3.3	
Challenger	4.2	1.3	
Classic	4.7	2.7	
Coventry	3.3	2.0	
Eclipse	5.5	3.0	
Estate Fairfax	5.0	3.0	
	3.5	1.0	
Georgetown	4.2	2.3	
Glade Gnome	4.8	2.7	

TABLE 25-continued

aricty	Test A ¹	Test B ^{2/}
aga	4.0	2.7
elly	4.5	4.3
enblue	4.8	4.7
iberty	4.2	1.7
farquis	4.2	4.7
ferion	3.5	4.3
<i>le</i> rit	5.7	3.7
Aidnight	4.5	1.0
Monopoly	4.7	5.3
Vassau	5.0	2.3
Ram I	4.3	3.0
South Dakota	3.7	3.3
Couchdown	4.3	1.3
Viva	4.8	3.7
LSD (.05)	1.2	1.8

Drought Recovery Rating Scale: 1-9; 9 = Complete recovery

TABLE 26

A Comparison of Seed Yield in Pounds Per Acre of Ba 77-700 and Other Kentucky Bluegrass Varieties in Two (2) Tests				
Variety	Test A ^{1/}	Test B ²		
Ba 77-700 Abbey	1495	1569 1549		

V	ariety	Test A ^{1/}	Test B ²	سيند
D.	a 77-700	1495	1569	
	bbey		1549	
	llure	859		
	ristol	862		
	uckingham	865	748	
	annon	, ,,,,,	1551	
	oveniry		1046	
	airfax		1159	
	icta	1342		
	iva	1382	1612	
	SD (.05)	216	160	

^{1/}Test Location: Gervais, OR ²/Test Location: La Grande, OR

What is claimed is:

1. A variety of Kentucky Bluegrass plant, substantially as shown and described, characterized by a medium to high level of resistance to leaf spot, dollar spot, rusts, and necrotic ring spot; an attractive green color throughout the growing season; good early spring greening; medium to high quality turf formation under a wide variety of environmental conditions; a moderately wide blade; and a high level of seed yielding capacity.

^{1/}Locations: Carbondale, IL; and pooled data from Halsey, Hubbard and Gervais, OR ²Locations: Haymarket, VA





