United States Patent [19]

Meier et al.

[11] **Patent Number: Plant 6,585**

[45] **Date of Patent: Feb. 7, 1989**

[54] **KENTUCKY BLUEGRASS**

[75] Inventors: **Virgil D. Meier**, Marysville, Ohio; **James K. Turner**, Salem, Oreg.; **Eugene W. Mayer**, Marysville, Ohio

[73] Assignee: **The O.M. Scott & Sons Company**, Marysville, Ohio

[21] Appl. No.: **55,435**

[22] Filed: **May 29, 1987**

[51] **Int. Cl.**[4] **A01H 5/00**

[52] **U.S. Cl.** **Plt./88**

[58] **Field of Search** Plt./88

Primary Examiner—Robert E. Bagwill

[57] **ABSTRACT**

A variety of Kentucky bluegrass having a high level of disease resistance, good turf performance, and a very high level of seed yield potential.

1 Drawing Sheet

1

BACKGROUND

Kentucky bluegrasses have been disclosed in U.S. Plant Pat. No. 3,156 which issued on May 9, 1972; U.S. Plant Pat. No. 3,186 which issued on May 23, 1972; U.S. Plant Pat. No. 4,336 which issued on Nov. 28, 1978; U.S. Plant patent application, Ser. No. 872,537, filed June 10, 1986; U.S. Plant patent application, Ser. No. 910,146, filed Sept. 19, 1986; U.S. Plant patent application, Ser. No. 27,285, filed Mar. 17, 1987 and U.S. Plant patent application, Ser. No. 28,424, filed Mar. 17, 1987.

SUMMARY OF THE VARIETY

The present invention relates to a new and distinct variety of *Poa pratensis* that has been designated Ba 72-441 Kentucky bluegrass.

Ba 72-441 plant material originated by crossing a Kentucky bluegrass plant ("Victa") disclosed in U.S. Plant Pat. No. 3,156, the seed parent, with a Kentucky bluegrass plant ("Windsor") disclosed in U.S. Plant Pat. No. 2,364, the pollen parent. As a result of this breeding, a distinct variety was produced and asexually propagated by rhizomes, tillers and disseminules. Seed of Ba 72-441 was produced first at Marysville, Ohio and later at Gervais, Oreg. This seed was used to plant turf performance evaluation trials.

Asexual reproduction of Ba 72-441 by propagules (tillers and rhizomes) and by disseminules (modified caryopses produced by apomixis) has consistently produced progeny plants indistinguishable from the mother plant.

Ba 72-441 has a number of highly desirable characteristics including a good level of resistance to Helminthosporium spp. that causes leaf spot, melting out and crown rot, *Ustilago striiformis* that causes stripe smut, and Puccinia spp. that causes rust; an attractive leafy turf type growth habit; moderately wide leaf blades; an attractive green color which can be maintained throughout the entire growing season; good turf performance as evidenced by consistently high scores in tests throughout the U.S.A.; and a very high seed yield potential in the bluegrass seed production region of the U.S.A.

In comparison with its seed parent, the new variety has a thinner peduncle, a more narrow and thinner flag leaf, and better winter color. In comparison to the pollen parent, the new variety has fewer seeds per pound and a higher seed yield.

2

BRIEF DESCRIPTION OF THE DRAWING

FIG. **1** is a photograph of Ba 72-441 Kentucky bluegrass plant in the vegetative stage including the extensive root and rhizome system;

FIG. **2** is a photograph of Ba 72-441 Kentucky bluegrass panicle;

FIG. **3** is a photograph of Ba 72-441 Kentucky bluegrass seed; and

FIG. **4** is a photograph of Ba 72-441 Kentucky bluegrass turf.

DETAILED DESCRIPTION OF THE VARIETY

Ba 72-441 Kentucky bluegrass (*Poa protensis* L.) is perennial with creeping rhizomes forming a moderately dense turf. When plants overwinter in the field with freezing temperatures and then are brought into the greenhouse during late winter to continue growth undisturbed by clipping under moderate temperatures (60°–80° F.), culms are erect averaging 421 mm in length with an average of 2.7 nodes per culm. The uppermost internode averages 9.3 cm, and the peduncle averages 10.6 cm in length, and 0.558 mm in thickness. The flag leaf averages 4.3 cm in length, 3.3 mm in width and 0.107 mm in thickness. The panicle has an average length of 7.6 cm, width of 4.2 cm, and 5.2 whorls. The lowest whorl has an average of 4.0 branches and the third whorl from the bottom of the panicle has an average of 2.7 branches. The average spikelet at the tip of a branch in the lowest whorl is 5.1 mm in length and has 3.9 florets with an outer glume of 2.9 mm and an inner glume of 3.3 mm in length. A similar spikelet from the third whorl from the bottom of the panicle is 5.0 mm in length and has 3.8 florets with an outer glume of 3.3 mm and an inner glume of 3.3 mm in length. 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 seed of Ba 72-441 is 3.18 mm in length and 0.88 mm in width with approximately 1,003,037 seeds per pound. Comparisons of Ba 72-441 with other varieties on seed dimensions and on seed numbers per pound are shown in Tables 1 and 2.

TABLE 1

Seed Measurements of Ba 72-441 and Other Bluegrass Varieties After Conditioning.

Variety	Length (mm)	Width (mm)
Ba 72-441	3.18	0.88
Ba 70-139	2.86	0.78

TABLE 1-continued

Seed Measurements of Ba 72-441 and Other Bluegrass Varieties After Conditioning.

Variety	Length (mm)	Width (mm)
Ba 72-492	2.53	0.76
Ba 72-500	2.77	0.80
Baron	3.07	0.86
Bristol	2.73	0.80
Nassau	2.96	0.78
Newport	2.76	0.71
Park	3.04	0.72
Ram I	3.51	0.84
Victa	3.20	0.86
LSD(.05)	0.19	0.06

TABLE 2

Comparison of Seed Numbers Per Pound of Ba 72-441 and Other Bluegrass Varieties After Conditioning.

	Number of Seeds Per Pound
Ba-72-441	1,003,037
Ba 70-139	1,246,200
Ba 72-492	1,275,740
Ba 72-500	1,300,105
Adelphi	1,383,976
America	1,659,824
Gnome	1,017,641
Baron	1,051,693
Birka	1,223,530
Bonnieblue	1,135,303
Bristol	1,270,821
Eclipse	1,335,668
Glade	1,108,441
Kenblue	1,463,923
Merit	1,109,728
Nassau	1,127,130
Newport	1,226,481
Park	1,248,349
Sydsport	1,355,644
Vantage	1,555,303
Victa	1,038,298
Windsor	1,520,885

Since environmental conditions such as soil and climate may influence morphological characters to some extent, comparisons of morphological characteristics of Ba 72-441 are made with other Kentucky bluegrass varieties in Tables 3–10.

TABLE 3

Morphological Comparison of Panicles of Ba 72-441 and Other Bluegrass Varieties in the Greenhouse at Marysville, Ohio.

Variety	Panicle Nodding*	Panicle Length (cm)	Panicle Width (cm)	Number of Whorls Per Panicle	Number of Branches Lower Whorl	Number of Branches Third Whorl
Ba 72-441	1.4	7.6	4.2	5.2	4.0	2.7
Ba 70-139	2.0	6.7	3.7	4.8	3.8	2.7
Ba 72-492	1.2	7.5	4.2	5.5	4.0	3.0
Ba 72-500	2.0	6.8	3.8	5.0	4.0	2.4
Baron	1.0	7.8	4.1	5.2	3.8	2.5
Bristol	2.0	9.7	5.0	5.0	3.3	2.7
Nassau	2.0	10.0	6.0	5.0	3.0	2.0
Newport	2.0	10.3	4.4	4.5	2.3	2.3
Park	1.6	9.0	3.7	4.0	4.3	3.7
Ram I	2.0	9.0	4.7	4.0	2.5	2.0
Victa	1.2	7.5	4.1	5.4	4.4	3.4
LSD(.05)	0.5	1.6	1.0	0.8	0.7	0.8

*Panicle nodding rated: 1 = erect, 2 = nodding.

TABLE 4

Morphological Comparison of Spikelets of Ba 72-441 and Other Bluegrass Varieties in the Greenhouse at Marysville, Ohio.

Variety	Spikelet Length (mm) Lowest Whorl	Spikelet Length (mm) Third Whorl	Number of Florets per Spikelet Lowest Whorl	Number of Florets per Spikelet Third Whorl
Ba 72-441	5.1	5.0	3.9	3.8
Ba 70-139	5.2	5.2	4.2	4.0
Ba 72-492	5.2	5.0	4.4	4.2
Ba 72-500	5.1	5.0	4.2	3.9
Baron	5.0	5.0	3.7	3.8
Bristol	6.2	6.0	5.7	5.3
Nassau	4.6	4.6	4.5	4.5
Newport	5.3	5.2	5.2	5.2
Park	6.5	6.7	5.2	4.7
Ram I	4.7	5.2	5.2	5.5
Victa	5.2	5.0	3.8	3.8
LSD(.05)	0.9	0.8	1.1	1.0

TABLE 5

Morphological Comparison of Glumes of Ba 72-441 and Other Bluegrass Varieties in the Greehouse at Marysville, Ohio.

Variety	Glume Length (mm) Outer Lowest Whorl	Glume Length (mm) Outer Third Whorl	Glume Length (mm) Inner Lowest Whorl	Glume Length (mm) Inner Third Whorl
Ba 72-441	2.9	2.9	3.3	3.3
Ba 70-139	3.2	3.1	3.5	3.5
Ba 72-492	2.9	3.0	3.3	3.3
Ba 72-500	3.1	3.1	3.4	3.4
Baron	2.9	2.8	3.4	3.3
Bristol	3.4	3.3	3.7	3.9
Nassau	2.3	2.4	2.7	2.7
Newport	2.6	2.5	2.9	2.9
Park	3.0	3.2	3.5	3.7
Ram I	2.6	2.4	2.9	2.7
Victa	2.8	3.0	3.3	3.3
LSD(.05)	0.5	0.4	0.4	0.4

TABLE 6

Morphological Comparison of Flag Leaves of Ba 72-441 and Other Bluegrass Varieties in the Greenhouse at Marysville, Ohio.

Variety	Flag Leaf Length (cm)	Flag Leaf Width (mm)	Flag Leaf Thickness (mm)
Ba 72-441	4.3	3.3	0.107
Ba 70-139	4.7	3.2	0.112
Ba 72-492	5.2	3.6	0.117
Ba 72-500	4.1	3.2	0.112
Baron	4.5	3.2	0.119
Bristol	5.5	3.4	0.127
Nassau	6.2	3.1	0.127
Newport	6.1	3.5	0.135
Park	4.2	2.6	0.109
Ram I	4.7	3.1	0.127
Victa	5.9	4.0	0.124
LSD(.05)	1.8	0.6	0.013

TABLE 7

Morphological Comparison of Peduncles, Culms, and Internodes of Ba 72-441 and Other Bluegrass Varieties in the Greehouse at Marysville, Ohio.

Variety	Peduncle Length (cm)	Peduncle Width (mm)	Culm Length (mm)	Number of Nodes Per Culm	Top Internode Length (cm)
Ba 72-441	10.6	0.558	421	2.7	9.3
Ba 70-139	13.2	0.610	435	2.7	10.2
Ba 72-492	12.6	0.558	486	2.2	10.5
Ba 72-500	12.9	0.660	439	2.7	9.8
Baron	12.7	0.559	482	2.5	10.1
Bristol	15.0	0.686	522	2.7	11.3

TABLE 7-continued

Morphological Comparison of Peduncles, Culms, and Internodes of Ba 72-441 and Other Bluegrass Varieties in the Greehouse at Marysville, Ohio.

Variety	Peduncle Length (cm)	Peduncle Width (mm)	Culm Length (mm)	Number of Nodes Per Culm	Top Internode Length (cm)
Nassau	8.0	0.533	450	2.5	11.2
Newport	18.0	0.558	547	2.3	11.2
Park	14.3	0.787	578	3.0	13.0
Ram I	18.5	0.610	527	3.0	10.2
Victa	12.2	0.711	474	2.4	10.6
LSD(.05)	3.7	0.018	79	0.6	2.1

TABLE 8

Morphological Comparison of Leaves of Ba 72-441 and Other Bluegrass Varieties in the Greenhouse at Marysville, Ohio.

Variety	Ligule Length (mm)	Leaf Length (mm)	Leaf Width (mm)	Leaf Angle (Degrees From Horizontal)
Ba 72-441	0.23	218	3.9	56
Ba 70-139	0.26	218	4.1	55
Ba 72-492	0.28	239	4.4	52
Ba 72-500	0.25	204	4.1	50
Baron	0.30	313	4.4	63
Bristol	0.30	253	4.3	37
Nassau	0.22	226	3.5	39
Newport	0.22	251	4.1	50
Park	0.33	329	4.2	44
Ram I	0.18	188	3.7	40
Victa	0.28	235	4.3	52
LSD(.05)	0.11	49	0.6	10

TABLE 9

Morphological Comparison of Leaf Hairs of Ba 72-441 and Other Bluegrass Varieties in the Greenhouse at Marysville, Ohio.

Variety	Hairs[a] Around Ligule on Upper Surface of the Leaf	Hairs[a] on Collar	Hairs[b] on Ligule
Ba 72-441	1.0	3.4	2.2
Ba 70-139	1.0	3.5	1.5
Ba 72-492	1.0	3.2	1.3
Ba 72-500	1.0	3.5	2.7
Baron	1.0	5.0	4.0
Bristol	1.3	4.7	4.3
Nassau	2.7	5.0	1.0
Newport	1.0	4.0	0.8
Park	1.0	1.7	0.0
Ram I	1.0	3.7	0.3
Victa	1.0	3.3	2.2
LSD(.05)	0.3	1.4	1.8

[a]Hairs around ligule and on collar rated 1–5: 1 = none, 5 = many.
[b]Hairs on ligule rated 0–5: O = none, 5 = many.

TABLE 10

Morphological Comparisons of Ba 72-441 and Other Bluegrass Varieties Grown as Unmowed Spaced Plants in the Field at Marysville, Ohio.

	Mature Plant Height	Panicle Density	Seedhead Weight
Ba 72-441	38	7	656
Ba 70-139	35	5	402
Adelphi	42	3	345
Nugget	17	3	233
Bristol	40	4	511
Merion	25	2	320
Glade	20	3	214
Vantage	52	2	1019

TABLE 10-continued

Morphological Comparisons of Ba 72-441 and Other Bluegrass Varieties Grown as Unmowed Spaced Plants in the Field at Marysville, Ohio.

	Mature Plant Height	Panicle Density	Seedhead Weight
Victa	23	2	648

Ratings: Mature Plant Height (cm) includes panicle.
Panicle Density - 1–10, 10 = high panicle density.
Seedhead Weight - Weight (mg) of 3 panicles.

Ba 72-441 has performed well throughout the U.S.A., as exhibited by high turf quality ratings in many different locations in comparison to other varieties. In addition, it has a pleasant medium green color which can be maintained throughout the growing season, good winter color, and early spring greening. Comparisons of Ba 72-441 with other varieties for quality and color are shown in Tables 11–14.

TABLE 11

Comparison of the Turf Quality of Ba 72-441 and Other Bluegrass Varieties in the U.S.A.

	Adelphia	Lincoln	Maryland		Marysville, Ohio	
Variety	New Jersey 2 Year Mean	Nebraska 2 Year Mean	Beltsville 1 Year Mean	Accokeek 3 Year Mean	Test 1 5 Year Mean	Test 2 5 Year Mean
Ba 72-441	6.6	6.0	5.9	2.7	2.7	2.4
A-34		6.2	5.6			
Adelphi	6.4	6.1	5.9	2.4	2.7	
Banff			4.8			
Baron	6.4	5.6	5.3	2.4		
Birka	5.9	5.9		1.8		
Bonnieblue	6.7	5.8	5.0	2.3		
Bono				1.9		
Bristol	6.5	5.9	5.0	2.3	2.7	2.3
Eclipse	7.2	5.8	5.9			
Fylking	5.7	6.1	4.9			2.1
Geary	3.6					
Glade	6.7	6.4	5.3			
Kenblue	3.3			1.8		2.0
Merion	6.0	5.9	5.3			2.2
Merit	6.2	6.0	6.1	2.3		2.2
Midnight	7.3	5.9	5.5	2.4		
Monopoly	5.7		4.9			
Nassau	5.9		4.5			
Newport						2.1
Parade	5.6	6.5	5.0		2.7	
Park		5.7		2.0	2.1	
Ram I	6.2	5.9	4.6	2.4		
Rugby				2.2		
Shasta	5.7					
Sydsport	6.0	6.3	5.8			2.2
Touchdown	6.1	5.9	5.8			
Trenton				2.4		
Vantage	3.6	5.8	5.5	2.3	2.6	2.0
Victa	6.5	5.7	5.5	2.3	2.6	2.3
Wabash	4.8					

Rating Scale: Larger number indicates higher quality.

TABLE 12

Comparison of Turf Color of Ba 72-441 and Other Bluegrass Varieties at Various Locations in the U.S.A.

Variety	St. Louis Missouri	Lincoln Nebraska	Marysville Ohio	Prince Frederick Maryland
Ba 72-441	9.1	7.0	8.3	7.5
A-34		6.5		
Adelphi	9.4	7.2	8.4	7.8
America	9.4	7.0	8.5	
Baron	9.2	6.9	8.5	7.3
Birka	9.1	6.7	8.1	7.0
Bonnieblue		7.0		7.7
Bono	9.0			6.6
Bristol	9.5	7.3	8.9	7.4

TABLE 12-continued

Comparison of Turf Color of Ba 72-441 and Other Bluegrass Varieties at Various Locations in the U.S.A.

Variety	St. Louis Missouri	Lincoln Nebraska	Marysville Ohio	Prince Frederick Maryland
Eclipse		7.0	8.5	
Fylking		6.8		
Glade	9.3	7.1	8.4	
Kenblue			8.1	5.9
Merion		6.9		
Merit	9.2	7.0		6.8
Midnight		7.9	8.9	7.4
Newport				
Parade		6.8		
Park	9.0	6.1	8.1	6.6
Ram I		7.3		7.8
Rugby		6.8		7.9
Sydsport	9.2	7.0	8.2	
Touchdown	9.0	6.8	8.1	
Vantage	9.2	6.8	8.5	7.7
Victa	9.2	6.9	8.4	7.1
Wabash				7.0
LSD(.05)	0.3	—	—	—

Rating Scale: Larger number indicates darker green color.

TABLE 13

Winter Color of Ba 72-441 and Other Bluegrass Varieties.

Variety	Gervais, Oregon 2 Year Mean	Marysville, Ohio 1 Year Mean
Ba 72-441	4.8	2.7
Adelphi	—	2.0
Bristol	5.4	6.7
Parade	—	3.8
Park	—	1.2
Vantage	—	1.7
Victa	3.4	2.7
LSD(.05)	0.9	—

Rated 1–9: 9 = darkest green color.

TABLE 14

Spring Greening of Ba 72-441 and Other Bluegrass Varieties.

Variety	Lincoln Nebraska	Maryland Prince Frederick	Maryland Belts-ville	Marysville, Ohio Test 1	Marysville, Ohio Test 2
Ba 72-441	6.0	7.0	5.3	5.3	3.5
A-34	5.0		5.3		
Adelphi	6.8	7.0	4.7	7.7	2.8
America	4.8		4.7	6.3	
Banff			5.3		
Baron	5.3	7.0	4.3	3.0	
Birka	5.0	7.3	4.7	5.7	
Bonnieblue	5.3	7.0			
Bono		8.3			
Bristol	5.5	7.3	4.7	5.7	4.2
Cheri	4.8		4.3		
Eclipse	5.5		5.7	6.5	
Enmundi	5.3		4.7		
Fylking	4.8		4.7		
Geronimo			6.3		
Glade	5.3		5.3	5.0	
Kenblue		6.3	3.3	8.0	
Merion	5.0		4.0		
Merit	5.5	6.0	4.3		
Midnight	4.8	7.0	4.7	2.0	
Monopoly			5.3		
Nassau			7.7		
Nugget			2.3		
Parade	5.5		4.3		3.2
Park	5.8	6.0		7.7	2.5
Ram I	5.5	7.7	6.5		
Rugby	5.0	7.0			
Shasta			5.3		
Sydsport	4.8		4.7	5.3	
Touchdown	5.3		4.3	5.7	
Vantage	5.8	7.7	5.0	8.0	3.0
Victa	5.8	5.7	3.7	4.3	3.0
Wabash		6.7	5.3		

TABLE 14-continued

Spring Greening of Ba 72-441 and Other Bluegrass Varieties.

Variety	Lincoln Nebraska	Maryland Prince Frederick	Maryland Belts-ville	Marysville, Ohio Test 1	Marysville, Ohio Test 2
LSD	0.8	1.8		1.6	

Rated 1–9: 9 = darkest green color.

Turf diseases are one of the major causes of inconsistent and poor turf performance among locations and years. Ba 72-441 has been found to have a high level of resistance to leaf spot (also known as melting out and crown rot) caused by *Helminthosporium vagans,* a medium to high level of resistance to rust caused by Puccinia spp., a medium level of resistance to dollarspot caused by *Sclerotina homeocarpa,* and a high level of resistance to stripe smut caused by *Ustilago striiformis.*

Resistance to stripe smut was determined in tests in Ohio and Maryland where Ba 72-441 and the standard varieties included in the tests had little or no incidence of stripe smut but several experimental selections were heavily infected. Comparisons of resistance to leaf spot, rust, and dollarspot are presented in Tables 15–17.

TABLE 15

Comparison of Leafspot Disease Incidence on Ba 72-441 and Other Bluegrasses at Several Locations in the U.S.A.

Variety	St. Louis[a] Missouri	Beltsville[b] Maryland	Adelphia[b] New Jersey	Marysville, Ohio[a] Test 1	Marysville, Ohio[a] Test 2
Ba 72-441	2	8.0	8.0	6	42
A-34		5.3	4.3		
Adelphi	2	8.0	5.7	9	75
America	8				43
Banff		5.3	7.0		
Baron	2	7.0	8.7		42
Birka	5		6.3		58
Bonnieblue			7.0		
Bono	7				63
Bristol	2	7.0	8.3	5	43
Eclipse		7.7	9.0		80
Fylking		6.7	6.3		
Geary			2.0		
Glade	2	7.3	6.3		38
Kenblue		3.3	1.7		93
Merion		6.1	7.7		
Merit	3	7.3	7.7		
Midnight		7.0	7.0		
Monopoly		5.3	6.0		
Nassau		7.7	7.4		
Parade		6.0	5.0	10	
Park	52			54	95
Ram I		6.5	7.0		
Rugby			5.0		
Shasta			6.0		
Sydsport	3	7.3	6.3		48
Touchdown	7	7.7			57
Trenton			6.0		
Vantage	7	5.0	2.0	15	90
Victa	2	8.0	7.0	7	22
Wabash			2.0		
LSD(.05)	7		1.9		34

Ratings
[a]% of turf affected by disease.
[b]1–9: 9 = least disease.

TABLE 16

Comparison of Rust (Puccinia spp.) Disease Incidence on Ba 72-441 and Other Bluegrasses.

Variety	Adelphia[a] New Jersey	Gervais, Oregon Turf[b]	Gervais, Oregon Seed Production[c]
Ba 72-441	7.0	43	2.0
Adelphi	7.1		
America	7.4		

TABLE 16-continued

Comparison of Rust (Puccinia spp.) Disease Incidence on Ba 72-441 and Other Bluegrasses.

Variety	Adelphia[a] New Jersey	Gervais, Oregon Turf[b]	Gervais, Oregon Seed Production[c]
Banff	6.5		
Baron	6.4		
Birka	3.5		
Bonnieblue	5.4		
Bristol	7.7	7	4.0
Eclipse	4.7		
Julia			4.0
Merion	2.4		
Merit	5.7		
Midnight	7.0		
Monopoly	7.1		
Mosa			4.0
Nassau	6.8		
Newport			4.0
Parade	6.2		
Ram I	7.0		
Touchdown	3.5		
Vantage	6.2		
Victa	5.6	63	2.0
LSD(.05)	0.9		

Ratings:
[a]Stem Rust (*Puccinia graminis* Pers.)0–9: 9 = no disease.
[b]% of turf affected by disease.
[c]1–4: 4 = very susceptible.

TABLE 17

Comparison of Dollarspot Disease Incidence on Ba 72-441 and Other Bluegrasses.

Variety	Prince Frederick Maryland	Marysville Ohio
Ba 72-441	15	27
Adelphi	8	20
America		13
Baron	50	23
Birka	6	47
Bonnieblue	10	
Bono	4	63
Bristol	6	17
Eclipse		8
Glade		40
Kenblue	8	37
Merit	4	
Midnight	6	
Park		33
Ram I	40	
Rugby	12	
Sydsport		43
Touchdown		50
Trenton	28	
Vantage	11	15
Victa	5	23
Wabash	11	
LSD(.05)	19	24

Rating: % of turf affected by disease.

Ba 72-441 has the capability to tolerate heat and drought stress. In addition, it has a low growth habit and a slower vertical growth rate than many varieties, especially the common type of varieties such as Park, Newport, and Kenblue, that should allow it to tolerate lower mowing heights and possibly decrease the total number of mowings per year without sacrificing overall turf performance. The leaf texture of the new variety is similar to many bluegrass varieties when maintained under mowed turf conditions. Comparisons showing tolerance to drought and heat stress, growth habit, and leaf texture are presented in Tables 18–20.

TABLE 18

Comparison of Drought and Heat Tolerance of Ba 72-441 and Other Bluegrasses.

Variety	Prince Frederick Maryland	Marysville Ohio
Ba 72-441	2	1
Adelphi	12	18
Baron	10	
Birka	5	
Bonnieblue	4	
Bono	13	
Bristol	11	8
Kenblue	15	
Merit	7	
Midnight	13	
Parade		27
Park	7	13
Ram I	6	
Rugby	9	
Vantage	10	8
Victa	9	13
Wabash	9	

Rated as % turf losing healthy green color.

TABLE 19

Comparison of Growth Habit of Ba 72-441 and Other Bluegrass Varieties Under Mowed Conditions at Marysville, Ohio.

Variety	Test 1[a] Year 1	Test 1[a] Year 2	Test 2[b]
Ba 72-441	79	61	1.7
Adelphi			2.7
Bristol	69	73	2.0
Fylking	95	80	
Kenblue	96	81	
Merion	76	71	
Merit	86	76	
Newport	92	78	
Parade			2.3
Park			2.3
Sydsport	70	64	
Vantage	85	65	2.0
Victa	81	64	2.0
LSD(.05)	15	13	0.6

Rating:
[a]Height (mm) of turf about one week after last mowing.
[b]0–9: 9 = very tall growing turf, 0 = no growth since last mowing.

TABLE 20

Comparison of Leaf Texture of Ba 72-441 and Other Bluegrasses Under Mowed Turf Conditions.

Variety	St. Louis Missouri	Marysville Ohio
Ba 72-441	4.6	5.0
Adelphi	5.3	
America	6.0	
Baron	4.6	
Birka	6.0	
Bono	5.6	
Bristol	5.3	5.0
Fylking		5.8
Glade	6.0	
Kenblue		5.5
Merion		5.0
Merit	4.3	5.0
Newport		5.0
Park	6.0	
Sydsport	5.0	5.0
Touchdown	5.0	
Vantage	6.0	5.3
Victa	4.4	4.8
LSD(.05)	0.7	0.4

Rating: 1–9: 9 = narrowest leaf blade.

The new variety has a very high level of seed yielding potential which will make it economical to produce

and aid in its commercial success. Comparative results on seed yield are shown in Table 21.

TABLE 21

Seed Yield Comparisons of Ba 72-441 and Other Bluegrass Varieties in Oregon.

Location	Gervais			LaGrande		
Harvest Year	Year 1	Year 2	Mean	Year 1	Year 2	Mean
Variety						
Ba 72-441	691	1586	1139	1512	1253	1383
Victa	780	1394	1087	1419	1200	1310
Newport	435	1256	846			
Bristol	347	808	578	1089	970	1030

TABLE 21-continued

Seed Yield Comparisons of Ba 72-441 and Other Bluegrass Varieties in Oregon.

Location	Gervais			LaGrande		
Harvest Year	Year 1	Year 2	Mean	Year 1	Year 2	Mean
Mosa	322	1060	691			
Julia	296	1016	656			
LSD(.05)	140	134		149	181	220

Rating: Pounds per acre of conditioned seed.

What is claimed is:

1. A variety of Kentucky bluegrass plant, substantially as shown and described, characterized by a high level of resistance to disease, especially leaf spot disease, a desirable green color throughout the growing season, a high quality persistent turf under a wide variety of environmental conditions and a very high level of seed yielding capacity.

* * * * *

FIG. 1

FIG. 2

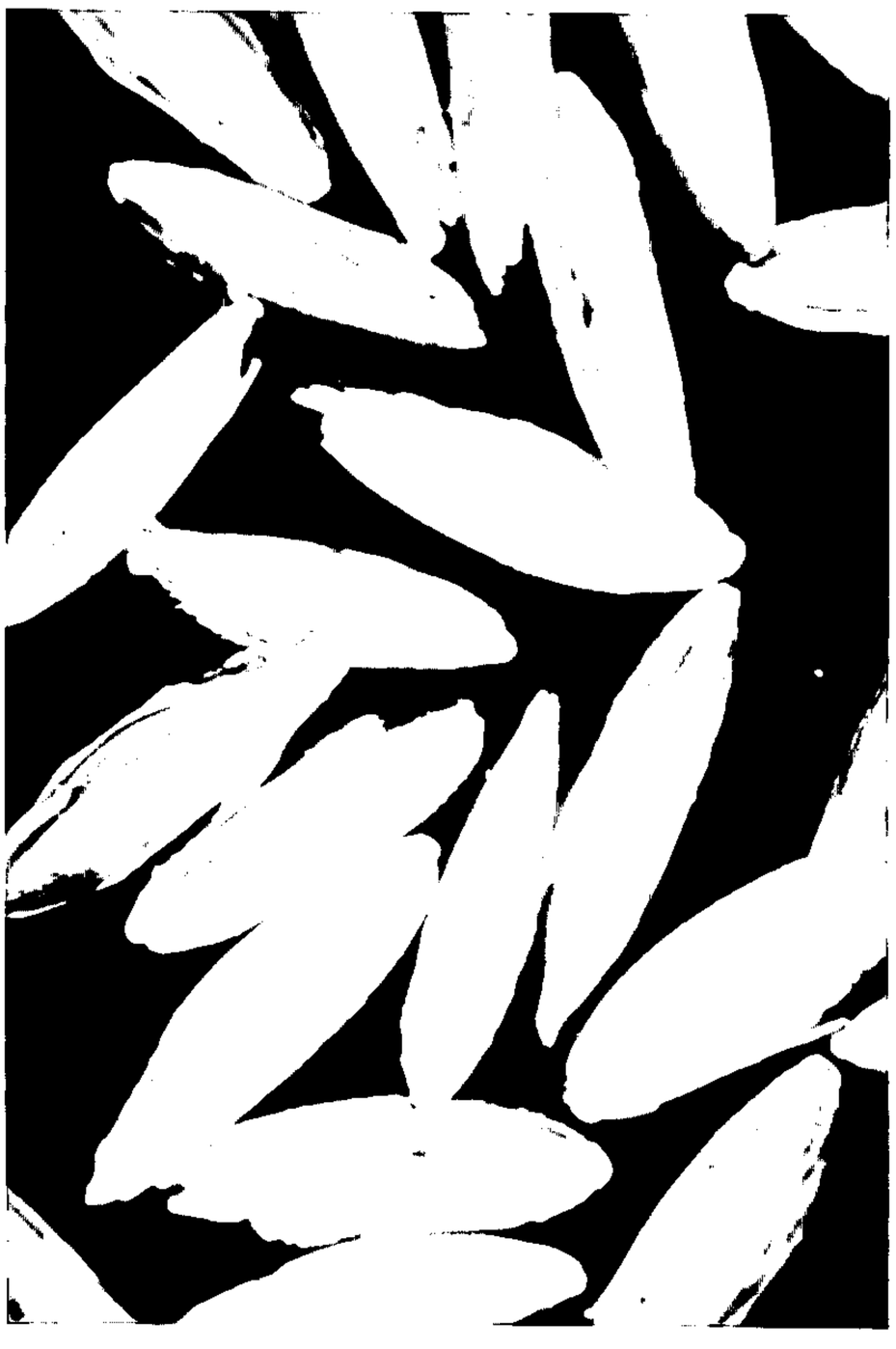

FIG. 3

FIG. 4