



PERFORMANCE OF RYEGRASS VARIETIES IN ALABAMA
1986 - 1987



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IN ALABAMA, 1986-87

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The Alabama Ryegrass Variety Test is a continuing evaluation of available varieties and breeding lines from private companies and state agricultural experiment stations. Tests are planted in northern, central, and southern locations to evaluate the varieties and lines under the different environmental conditions in these regions of Alabama. The tests are conducted by Experiment Station personnel and the results are presented in a fair and unbiased manner.

EXPERIMENTAL PROCEDURES AND DISCUSSION

Ryegrass entries were seeded at a 20-pound-per-acre rate in rows 7 inches apart, using plots 5 x 20 feet with four replications. A good stand was obtained at all locations: Sand Mountain Substation, Plant Breeding Unit, and Gulf Coast Substation.

The tests were fertilized with phosphorus and potassium according to Auburn University soil test recommendations. At planting, nitrogen was applied at the rate of 50 pounds of N per acre, and an additional 50 pounds of N was applied per acre after each cutting to allow the varieties to perform at their maximum yield potential. A 32-inch swath

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of each plot was harvested with a flail harvester each time the ryegrass reached 6-10 inches. A herbage sample of approximately 1 pound was taken from each plot at each harvest for determining forage dry matter percentage.

The unusually severe cold weather during late January 1985 and December 1985 and January 1986 virtually eliminated any winter production at the Plant Breeding Unit in 1985 and 1986, at the Gulf Coast Substation in 1985, and at the Sand Mountain Substation in 1986. This severe cold also destroyed the test at the Sand Mountain Substation in 1985. Lower total yields in 1986 were due to below normal rainfall for winter and spring at all locations. The tests at the Plant Breeding Unit and Gulf Coast Substation were planted 2 weeks earlier in 1986 than in 1985 and 1984. However, the test at Sand Mountain was planted two weeks later than in 1985. The early planting dates at the two southern locations resulted in larger harvests in the fall than the previous 2 years. However, there was not an early harvest at Sand Mountain Substation due partly to the late planting and then wet, cold conditions in the fall and winter periods. The late spring yields were also very low at all locations in 1987 due to severe dry weather in April.

Marshall continued to be among the highest in total herbage production throughout Alabama for the 3-year period, 1985-87 and is especially outstanding in late winter/early spring production. However, in 1987 a number of new entries yielded more total herbage at the two Southern locations.

Strategies to meet seasonal forage needs are an important considerations for livestock producers. Tables 7, 8, and 9 show 3-year average yields for the ryegrass production season. The 3-year average for the Sand Mountain Substation includes, 1984, 1986, and 1987. A 3-year average provides a more dependable comparison of ryegrass varieties than does single-year results.

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SOURCES OF RYEGRASS SEED

Aubade	Wilamette Seed & Grain, Shedd, Oregon
Billion	Van Der Have Oregon, Inc., Albany, Oregon
Bulldog	Lofts Seed Inc., Bound Brooks, New Jersey
Caramba	Van Der Have Oregon, Inc., Albany, Oregon
Cebeca LM 8	International Seeds, Halsey, Oregon
Cervus	International Seeds, Halsey, Oregon
Dalita	Daehnfeltdt, Albany, Oregon
Deborach	Daehnfeltdt, Albany, Oregon
Ellire	International Seeds, Halsey, Oregon
Florida 80	Univ. of Florida, Gainesville, Florida
FL-X 1986 LR	Univ. of Florida, Gainesville, Florida
Gulf	Local purchase
HI 124	Van Der Have Oregon, Inc., Albany, Oregon
Magnolia	Forbes Seed, Junction City, Oregon
Marshall	Funk Seeds Int., Alexandria, Louisiana
Minaret	International Seeds, Halsey, Oregon
Mom LM 455	Van Der Have Oregon, Inc., Albany, Oregon
Mom LM 457	Van Der Have Oregon, Inc., Albany, Oregon
Multimo	Van Der Have Oregon, Inc., Albany, Oregon
Nutriblend	Daehnfeltdt, Albany, Oregon
Pennploid V	Pennington Enterprises, Madison, Georgia
Polly	Daehnfeltdt, Albany, Oregon
Tetrablend 444 TX	Northrup King Co., Columbus, Mississippi
Tetrablend 444 T3	Northrup King Co., Columbus, Mississippi
Tetrone	Van Der Have Oregon, Inc., Albany, Oregon
Top-one	Wilamette Seed & Grain, Shedd, Oregon
Urbana	International Seed, Halsey, Oregon
Ursus	International Seed, Halsey, Oregon
Wilo	Daehnfeltdt, Albany, Oregon

Table 1. Seasonal Dry Matter Yield of Ryegrass Varieties at the Gulf Coast Substation, Fairhope, Alabama, 1987

Brand-variety	Yield/acre, by harvest date					Season* total
	12/4	1/13	3/10	4/2	5/6	
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Deborach	680	281	1,701	1,608	3,362 [†]	7,633
Minaret	1,843	501	2,273	1,807	929	7,353
Tetrablend 444 T3	1,472	540	2,750	1,421	1,163	7,346
Urbana	1,428	658	2,670	1,479	976	7,212
HI 124	1,638	369	2,280	1,749	1,040	7,076
Mom LM 457	1,355	298	2,507	1,877	897	6,935
Tetrablend 444 TX	1,458	462	2,414	1,422	1,070	6,826
Multimo	1,223	570	2,418	1,684	919	6,814
Tetrone	1,446	362	2,499	1,534	953	6,794
Aubade	1,811	505	2,376	1,344	743	6,778
Mom LM 455	1,104	198	2,447	1,185	1,052	6,686
Billion	1,346	479	2,519	1,505	795	6,644
Caramba	2,026	447	2,142	1,184	789	6,588
FL-X 1986 LR	1,142	322	2,340	1,507	1,237	6,548
Top-one	1,564	507	1,993	1,519	954	6,537
Pennploid V	890	398	2,491	1,327	1,407	6,513
Bulldog	1,070	359	2,567	1,376	1,107	6,479
Marshall	1,637	342	2,177	1,475	826	6,456
Wilco	1,180	258	1,922	1,976	942	6,278
Nutriblend	1,182	337	2,063	1,546	946	6,073
Florida 80	730	228	2,667	916	1,513	6,054
Dalita	1,456	346	1,841	1,630	759	6,032
Magnolia	1,162	278	2,183	1,501	820	5,943
Gulf	1,128	225	2,241	1,422	679	5,695
Cebeca LM 8	1,108	254	1,795	1,525	807	5,489
Polly	1,181	192	1,651	1,690	765	5,479
Ursus	1,013	364	1,755	1,550	954	5,333

*LSD (.05) = 851; C.V. = 9%.

[†]This includes 2,487 pounds harvested June 11; no significant regrowth on other varieties.

Planted: October 2, 1986.

Soil: Malbis fine sandy loam.

Table 2. Seasonal Dry Matter Yield of Ryegrass Varieties at the Plant Breeding Unit, Tallassee, Alabama, 1987

Brand-variety	Yield/acre, by harvest date					Season* total
	12/17	2/19	4/1	5/6	6/3	
	Lb.	Lb.	Lb.	Lb.	Lb.	
Cervus	1,090	842	1,641	1,873	1,385	6,831
FL-X 1986 LR	1,132	917	1,700	2,080	984	6,813
Wilo	1,340	525	1,405	1,641	1,005	5,916
Bulldog	1,023	730	1,463	1,805	866	5,887
Mom LM 455	849	229	1,299	2,416	1,009	5,803
Tetrablend 444 T3	865	858	1,477	1,538	874	5,612
Urbana	1,006	796	1,128	1,464	1,157	5,552
Gulf	1,126	770	1,155	1,671	768	5,489
Minaret	978	706	968	1,411	1,204	5,266
Marshall	1,478	589	1,081	1,464	633	5,245
Magnolia	1,447	990	1,176	1,273	328	5,214
Tetrablend 444 TX	857	851	1,497	1,309	669	5,183
Pennploid V	545	603	1,575	1,628	790	5,141
Top-one	921	678	1,263	1,235	839	4,935
Florida 80	468	526	1,777	1,355	781	4,907
Caramba	821	735	1,297	1,026	980	4,858
HI 124	915	321	994	1,771	624	4,624
Nutriblend	1,048	697	1,197	1,135	459	4,536
Billion	924	624	1,054	1,016	863	4,481
Aubade	1,098	801	1,146	830	569	4,445
Multimo	778	476	964	1,052	951	4,220
Polly	828	191	804	1,279	838	3,939
Mom LM 457	781	220	1,031	1,247	418	3,698
Tetrone	798	243	934	1,001	666	3,643
Deborach	467	285	584	1,049	1,299	3,684
Cebeca LM 8	868	335	684	904	632	3,424
Dalita	888	209	663	758	600	3,118

*LSD (.05) = 1690; C.V. = 24%.

Planted: September 26, 1986.

Soil: Cahaba fine sandy loam.

Table 3. Seasonal Dry Matter Yield of Ryegrass Varieties at the Sand Mountain Substation, Crossville, Alabama, 1986-87

Brand-variety	Yield/acre, by harvest date				Season* total Lb.
	3/26 Lb.	4/16 Lb.	5/8 Lb.	6/1 Lb.	
HI 124	747	2,320	1,171	2,486	6,725
Marshall	1,490	1,980	1,343	1,900	6,715
Mom LM 455	586	2,744	1,075	2,196	6,600
Urbana	1,186	2,227	1,118	2,006	6,538
Multimo	1,036	2,156	1,000	2,295	6,487
Bulldog	1,310	1,799	1,383	1,784	6,276
Aubade	2,028	1,167	1,036	1,537	5,768
Nutriblend	1,752	1,354	1,453	1,180	5,740
Billion	1,367	1,561	1,057	1,752	5,737
Top-one	1,512	1,451	1,163	1,607	5,734
Mom LM 457	502	1,963	1,060	2,046	5,571
Magnolia	1,268	1,415	1,345	1,437	5,466
FL-X 1986 LR	631	1,762	1,129	1,861	5,383
Pennploid V	1,293	1,351	1,328	1,343	5,314
Tetrablend 444 T3	994	1,533	1,177	1,607	5,311
Tetrone	438	2,083	947	1,811	5,279
Gulf	764	1,534	1,021	1,741	5,060
Wilo	453	1,828	966	1,699	4,945
Ellire	619	1,609	935	1,716	4,879
Caramba	1,021	1,337	930	1,493	4,780
Dalita	251	1,633	1,035	1,734	4,653
Minaret	352	1,553	1,012	1,654	4,570
Polly	184	1,722	957	1,443	4,307
Tetrablend 444 TX	657	1,191	1,157	1,300	4,305
Florida 80	795	1,182	1,085	1,156	4,219
Cebeca LM 8	209	1,556	870	1,446	4,081
Deborach	45	815	941	1,512	3,313

*LSD (.05) = 1874; C.V. = 25%.

Planted: September 25, 1986.

Soil: Hartsells fine sandy loam.

Table 4. Total Dry Matter Yield of Ryegrass Varieties, 1987 and Two- and Three-year Averages, Gulf Coast Substation, Fairhope, Alabama

Brand-variety	Dry matter/acre		
	1987	2-yr. av. (1986-87)	3-yr. av. (1985-87)
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
Deborach	7,633		
Minaret	7,353		
Tetrablend 444 T3	7,346		
Urbana	7,212	5,926	6,034
HI 124	7,076		
Mom LM 457	6,935	6,141	6,383
Tetrablend 444 TX	6,826		
Multimo	6,814	5,702	
Tetrone	6,794	5,682	
Aubade	6,778		
Mom LM 455	6,430	6,044	6,236
Billion	6,644	5,749	
Caramba	6,588	5,760	5,773
FL-X 1986 LR	6,548		
Top-one	6,537		
Pennploid V	6,513		
Bulldog	6,479		
Marshall	6,456	6,136	6,389
Wilo	6,533	5,165	
Nutriblend	6,073		
Florida 80	6,054	5,821	5,703
Dalita	6,032	4,892	5,404
Magnolia	5,943	5,669	
Gulf	5,695	5,504	5,656
Cebeca LM 8	5,489		
Polly	5,479	4,336	
Ursus	5,333		

Table 5. Total Dry Matter Yield of Ryegrass Varieties, 1986 and Two- and Three-Year Averages, Plant Breeding Unit, Tallassee, Alabama

Brand-variety	Dry matter/acre		
	1987	2-yr. av. (1986-87)	3-yr. av. (1985-87)
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
Cervus	6,831		
FL-X 1986 LR	6,813		
Wilo	5,916	3,858	
Bulldog	5,887		
Mom LM 455	5,803	5,018	5,525
Tetrablend 444 T3	5,612		
Urbana	5,552	4,231	4,809
Gulf	5,489	4,661	4,729
Minaret	5,266		
Marshall	5,245	4,532	5,317
Magnolia	5,214	4,135	
Tetrablend 444 TX	5,183		
Pennploid V	5,141		
Top-one	4,935		
Florida 80	4,970	4,396	4,844
Caramba	4,858	3,497	3,853
HI 124	4,624		
Nutriblend	4,536		
Billion	4,481	3,436	
Aubade	4,445		
Multimo	4,220	3,267	3,971
Polly	3,939	2,529	
Mom LM 457	3,698	3,556	4,451
Tetrone	3,643	2,839	
Deborach	3,614		
Cebeca LM 8	3,424		
Dalita	3,118	2,294	3,313

Table 6. Total Dry Matter Yield of Ryegrass Varieties, 1986 and Two- and Three-Year Averages, Sand Mountain Substation, Crossville, Alabama

Brand-variety	Dry matter/acre		
	1987	2-yr. av. (1986,1987)	3-yr. av. (1984,'86,'87)
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
HI 124	6,725		
Marshall	6,715	6,806	6,748
Mom LM 455	6,600	6,690	
Urbana	6,538	6,179	6,131
Multimo	6,487	6,222	
Bulldog	5,889		
FL-X 1986 LR	5,770		
Aubade	5,768		
Nutriblend	5,740		
Billion	5,737	5,231	
Top-one	5,734		
Mom LM 457	5,571	6,003	
Magnolia	5,466	5,351	
Pennploid V	5,314		
Tetrablend 444 T3	5,311		
Tetrone	5,279	5,404	
Gulf	5,060	4,863	
Wilo	4,945		
Ellire	4,879		
Caramba	4,780	4,851	
Dalita	4,653	5,075	
Minaret	4,570		
Polly	4,307	4,799	
Tetrablend 444 TX	4,305		
Florida 80	4,219	4,714	4,988
Cebeca LM 8	4,081		
Deborach	3,313		

Table 7. Three-Year Average Seasonal Distribution of Ryegrass Variety Forage Production, Gulf Coast Substation, Fairhope, Alabama, 1985-87

Brand-variety	Seasonal forage yield/acre			
	Autumn	Winter	Early spring	Late spring
	Lb.	Lb.	Lb.	Lb.
Urbana	476	1,427	3,278	852
Mom LM 457	452	1,411	3,648	872
Mom LM 455	368	2,348	3,127	479
Caramba	675	1,526	2,885	687
Marshall	546	1,687	3,366	791
Florida 80	243	1,397	2,968	1,095
Dalita	485	982	3,075	860
Gulf	376	1,365	3,094	821

Table 8. Three-Year Average Seasonal Distribution of Ryegrass Variety Forage Production, Plant Breeding Unit, Tallassee, Alabama, 1985-87

Brand-variety	Seasonal forage yield/acre			
	Autumn	Winter	Early spring	Late spring
	Lb.	Lb.	Lb.	Lb.
Mom LM 455	283	1,118	2,580	1,544
Urbana	335	1,370	1,899	1,205
Gulf	375	1,191	2,111	1,052
Marshall	493	1,437	2,208	1,179
Florida 80	156	1,226	2,467	994
Caramba	274	1,072	1,501	1,006
Multimo	259	1,061	1,606	1,044
Mom LM 457	260	1,081	2,055	1,054
Dalita	296	647	1,542	827

Table 9. Two-Year Average Seasonal Distribution of Ryegrass Variety Forage Production, Sand Mountain Substation, Crossville, Alabama, 1986, 1987

Brand-variety	Seasonal forage yield/acre			
	Autumn	Winter	Early spring	Late spring
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
Marshall	1,070	1,225	2,780	1,733
Mom LM 455	818	772	3,056	2,045
Urbana	749	880	2,469	2,081
Multimo	838	827	2,310	2,247
Billion	863	742	1,958	1,669
Mom LM 457	749	688	2,682	1,885
Magnolia	864	746	2,459	1,282
Tetrone	744	513	2,393	1,750
Gulf	1,004	406	2,227	1,227
Caramba	887	581	1,768	1,616
Dalita	866	283	2,144	1,783
Polly	807	233	2,094	1,665
Florida 80	879	800	2,118	917

Information contained herein is available to all without regard to race, color, sex, or national origin.

