



PERFORMANCE OF
RYEGRASS VARIETIES
IN ALABAMA,
1984-1985



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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 under the different environmental conditions of 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: Gulf Coast Substation, Sand Mountain Substation, and the Plant Breeding Unit.

The tests were fertilized with phosphorus and potassium according to soil test. At planting, nitrogen was applied at the rate of 50 pounds N per acre, except at the Plant Breeding Unit where 100 pounds was applied. An additional 50 pounds of N was applied per acre after each cutting to allow the varieties to perform at their maximum yield

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potential. A 32-inch swath of each plot was harvested with a flail type 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 virtually eliminated any winter production at the Plant Breeding Unit and Gulf Coast Substation and destroyed the test at the Sand Mountain Substation.

Marshall continued to be among the highest in total herbage production throughout Alabama and is especially outstanding in late winter/early spring production.

Planning ways to meet seasonal forage needs is an important consideration for livestock producers. Tables 5 and 6 show 3-year average yields for the ryegrass production season. 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

Caramba	Mommersteeg Int., Netherlands
Dalita	Pacific Seed Production Co., Albany, Oregon
Florida 80	Univ. of Florida, Gainesville, Florida
Gulf	Local purchase
Marshall	Funk Seeds Int., Alexandria, Louisiana
MOM Lm 454	Mommersteeg Int., Netherlands
MOM Lm 455	Mommersteeg Int., Netherlands
MOM Lm 456	Mommersteeg Int., Netherlands
MOM Lm	Mommersteeg Int., Netherlands
Multimo	Mommersteeg Int., Netherlands
Ninak	Western Seed Co., (van der Have Seeds), Albany, Oregon
Penploid -4	Pennington Enterprises, Madison, Georgia
Shannon	Pioneer Hi-Bred, Inter., Tipton, Indiana
Tetrablend 444	Northrup King Co., Columbus, Mississippi
Urbana	Western Seed Co., (van der Have Seeds), Albany, Oregon

Table 1. Seasonal Dry Matter Yield of Ryegrass Varieties at the Gulf Coast Substation, Fairhope, Alabama, 1985

Brand-variety	Yield/acre, by harvest date					Season total
	1/7	3/7	3/25	4/10	5/8	
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>	
Marshall	1,447	800	1,782	1,320	1,546	6,894 a*
Mom LM 456	1,265	785	1,803	1,257	1,758	6,868 a
Mom LM 457	1,228	835	1,817	1,270	1,718	6,867 a
Mom LM 455	1,447	880	1,494	1,364	1,436	6,621 ab
Ninak	1,938	506	1,327	1,226	1,550	6,547 ab
Multimo	1,631	650	1,454	1,362	1,358	6,465 ab
Dalita	1,036	527	1,614	1,428	1,822	6,428 ab
Tetrablend 444	1,727	390	1,391	1,061	1,854	6,422 ab
Mom LM 454	1,036	658	1,932	1,311	1,477	6,413 ab
Urbana	1,244	608	1,432	1,385	1,580	6,250 abc
Gulf	1,222	333	1,528	1,092	1,783	5,959 abcd
Caramba	1,661	491	1,233	1,143	1,273	5,800 bcde
Florida 80	1,083	554	1,373	686	1,771	5,467 cde
Shannon	1,292	358	1,197	1,135	1,321	5,304 de
Penploid-4	844	370	1,184	999	1,578	4,975 e

*Yields followed by the same letter are not different, P = .05.

Planted: October 31, 1984.

Table 2. Seasonal Dry Matter Yield of Ryegrass Varieties at the Plant Breeding Unit, Tallassee, Alabama, 1985

Brand-variety	Dry matter/acre by harvest date					Season total
	1/7	3/7	3/19	4/13	5/10	
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Marshall	2,836	366	187	1,957	1,541	6,887 a*
Mom LM 456	2,312	522	403	2,004	1,366	6,609 ab
Mom LM 455	2,259	494	299	1,904	1,583	6,538 ab
Mom LM 454	2,293	596	337	1,894	1,345	6,463 abc
Mom LM 457	2,029	639	310	1,904	1,358	6,241 abc
Urbana	2,317	454	291	1,538	1,367	5,967 bcd
Florida 80	2,305	116	152	1,756	1,410	5,739 cde
Shannon	2,063	243	244	1,683	1,462	5,694 cde
Ninak	1,731	497	340	1,613	1,227	5,407 def
Multimo	1,698	536	322	1,565	1,257	5,377 def
Dalita	1,033	557	529	2,069	1,162	5,350 def
Penploid-4	2,061	138	125	1,286	1,442	5,051 efg
Gulf	2,087	37	94	1,344	1,303	4,865 fg
Tetrablend 444	2,035	36	60	1,088	1,487	4,705 fg
Caramba	1,878	150	113	1,276	1,147	4,563 g

*Yields followed by the same letter are not different, P = .05.

Planted October 12, 1984.

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Table 3. Total Dry Matter Yield of Ryegrass Varieties and Two- and Three-Year Averages, Gulf Coast Substation, Fairhope, Alabama

Brand-variety	Dry matter/acre		
	1985	2-yr. av. (1984-85)	3-yr. av. (1983-85)
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
Marshall	6,894	7,476	7,290
Mom LM 456	6,868		
Mom LM 457	6,867		
Mom LM 455	6,621		
Ninak	6,547	6,334	6,339
Maltimo	6,465		
Dalita	6,428		
Tetrablend 444	6,422	5,663	
Mom LM 454	6,413		
Urbana	6,250	6,645	6,986
Gulf	5,959	5,795	
Caramba	5,800		
Florida 80	5,467	5,612	5,888
Shannon	5,304	5,568	5,763
Penploid-4	4,975	5,148	5,802

Table 4. Total Dry Matter Yield of Ryegrass Varieties, Plant Breeding Unit, Tallassee, Alabama. Two- and Three-Year Averages

Brand-variety	Dry matter/acre		
	1985	2-yr. av. (1984-85)	3-yr. av. (1983-85)
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
Marshall	6,887	9,112	10,623
Mom LM 456	6,609		
Mom LM 455	6,538		
Mom LM 454	6,463		
Mom LM 457	6,241		
Urbana	5,967	8,092	9,948
Florida 80	5,739	7,380	8,931
Shannon	5,694	7,892	9,573
Ninak	5,407	7,884	9,652
Multimo	5,377		
Dalita	5,350		
Penploid-4	5,051	7,159	9,058
Gulf	4,865	7,060	
Tetrablend 444	4,705	6,961	
Caramba	4,563		

Table 5. Seasonal Distribution of Ryegrass Variety Forage Production,
Gulf Coast Substation, Fairhope, Alabama, 1983-1985

Variety	Seasonal forage yield/acre			
	Autumn	Winter	Early spring	Late spring
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
Urbana	1,252	1,166	3,491	1,074
Marshall	1,230	1,120	3,804	1,134
Ninak	1,198	899	3,207	1,043
Shannon	878	832	3,087	964
Penploid-4	1,042	916	2,872	971
Florida 80	926	1,150	2,696	1,115

Table 6. Seasonal Distribution of Ryegrass Variety Forage Production, Plant Breeding Unit, Tallassee, Alabama, 1983-1985

Variety	Seasonal forage yield/acre			
	Autumn	Winter	Early spring	Late spring
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
Urbana	2,512	975	3,825	2,635
Marshall	2,879	912	4,218	2,613
Nirak	2,474	925	3,754	2,498
Shannon	2,352	879	3,789	2,552
Penploid-4	2,843	854	2,984	2,376
Florida 80	2,589	963	3,262	2,116

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

