



*Performance
of Ryegrass
Varieties
in Alabama,
1988-89*

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PERFORMANCE OF RYEGRASS VARIETIES

IN ALABAMA, 1988-89

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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 (replanted November 30, 1988).

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. A 32- or 48-inch swath of each plot was harvested with a flail harvester each time the ryegrass reached 6-10 inches tall. Cutting height was 1 1/2 to 2 inches. A herbage sample of approximately 1 pound was taken from each plot at each harvest for determining forage dry matter percentage.

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Planting conditions were good during the 1986-87 season, with tests at all locations planted between September 25 and October 2, 1986. No fall production was recorded at Sand Mountain in the 1986-87 season. Due to dry soil conditions in fall of 1987, tests at Fairhope and Crossville were not planted until November 12 and October 28, respectively. The continued dry condition at Crossville resulted in lower than normal yields during the 1987-88 season. Dry conditions at Fairhope in fall 1988 resulted in a poor stand on first planting and the test was replanted November 30 resulting in no fall production.

Strategies to meet seasonal forage needs are an important consideration for livestock producers. Tables 7, 8, and 9 show 3-year average yields for the ryegrass production season. A 3-year average provides a more dependable comparison of ryegrass varieties than do single-year results.

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SOURCE OF RYEGRASS SEED

Billion	Van Der Have Oregon, Inc., Albany, Oregon
Bulldog	Lofts Seed Inc., Bound Brook, New Jersey
Caramba	Van Der Have Oregon, Inc., Albany, Oregon
CIRT 31	Van Der Have Oregon, Inc., Albany, Oregon
Comet	NPI Seed Inc., Salem, Oregon
Dalita	Daehnfeltdt, Albany, Oregon
EIRT 36	Van Der Have Oregon, Inc., Albany, Oregon
Florida 80	Univ. of Florida, Gainesville, Florida
FL-X 1986 LR	Univ. of Florida, Gainesville, Florida
Gulf	Silverhill Farmer's Ass'n., Robertsedale, Alabama
HI 124	Van Der Have Oregon, Inc., Albany, Oregon
Magnolia	Forbes Seed, Junction City, Oregon
Marshall	Funk Seeds Inc., Alexandria, Louisiana
Max	NPI Seed Inc., Salem, Oregon
MSR 86-1	Mississippi State Univ., Mississippi State, Mississippi
Multimo	Van Der Have Oregon, Inc., Albany, Oregon
RustMaster	Daehnfeltdt, Albany, Oregon
Tetrablend 444	The New Northrup King Co., Laurinburg, North Carolina
Nutriblend	Daehnfeltdt, Albany, Oregon
Pennploid V	Pennington Enterprises, Madison, Georgia
Tetrone	Van Der Have Oregon, Inc., Albany, Oregon
Urbana	International Seed, Halsey, Oregon

TABLE 1. SEASONAL DRY MATTER YIELD OF RYEGRASS VARIETIES AT THE GULF COAST SUBSTATION, FAIRHOPE, ALABAMA, 1989

BRAND-VARIETY	ACRE YIELD BY HARVEST DATE						SEASON TOTAL
	2/10	3/09	3/27	4/11	4/27	5/22	
	LB.	LB.	LB.	LB.	LB.	LB.	LB.
PENNPLOID V	468	807	1,347	1,126	851	1,122	5,721
GULF	691	1,128	1,038	964	937	913	5,671
MSR 86-1	378	483	950	1,258	966	1,570	5,605
FL-X 1986LR	576	664	894	1,026	986	1,418	5,564
MAGNOLIA	597	996	1,101	857	988	1,000	5,539
RUSTMASTER	327	825	1,110	1,061	934	1,196	5,453
FLORIDA 80	468	702	1,107	1,071	905	1,184	5,437
BULLDOG	706	635	950	985	862	1,244	5,382
NUTRIBLEND	326	653	1,097	1,111	864	1,181	5,232
NK TETRA BLEND 444	323	873	987	933	806	994	4,916
EIRT 36	632	508	582	1,139	589	995	4,445
MARSHALL	362	530	734	980	804	949	4,359
DOVEY	67	352	678	1,044	663	1,526	4,330
HI 124	499	438	563	874	748	1,196	4,318
CIRT 31	486	419	492	1,096	603	998	4,094
DALITA	192	451	635	926	627	959	3,790
TETRONE	322	494	486	974	514	981	3,771
MAX	329	417	504	827	588	1,101	3,766
BILLION	521	556	507	736	602	841	3,763
CARAMBA	370	585	561	696	590	940	3,742
URBANA	617	462	448	775	523	865	3,690
MULTIMO	609	329	452	781	577	884	3,632
COMET	612	440	488	643	539	818	3,540
TEST MEAN	456	598	770	951	742	1,082	4,598
C. V. (%)	42	18	19	14	15	10	9
L. S. D. (.05)	225	124	173	155	128	124	475

PLANTED: NOVEMBER 30, 1988.

SOIL: MALBIS FINE SANDY LOAM.

*DOVEY IS A FESCUE AND WAS INADVERTENTLY ENTERED IN THIS TEST.

TABLE 2. SEASONAL DRY MATTER YIELD OF RYEGRASS VARIETIES AT THE PLANT BREEDING UNIT, TALLASSEE, ALABAMA, 1989

BRAND-VARIETY	ACRE YIELD BY HARVEST DATE					SEASON
	12/05	2/20	3/28	4/21	5/26	TOTAL
	LB.	LB.	LB.	LB.	LB.	LB.
HI 124	1,095	634	987	1,534	914	5,164
MARSHALL	1,114	659	1,004	1,441	816	5,034
BULLDOG	1,166	857	893	1,092	869	4,877
MSR 86-1	760	895	1,055	972	1,116	4,798
RUSTMASTER	766	906	916	959	1,049	4,596
FL-X 1986LR	746	734	980	1,046	1,024	4,530
MAGNOLIA	1,022	1,069	593	983	838	4,505
NUTRIBLEND	859	745	866	1,004	878	4,352
FLORIDA 80	913	754	827	845	818	4,157
MULTIMO	718	562	784	1,259	815	4,138
NK TETRA BLEND 444	662	787	711	1,050	922	4,132
PENNPLOID V	823	864	691	916	834	4,128
URBANA	766	640	786	1,344	546	4,082
GULF	729	777	774	785	893	3,958
MAX	736	528	765	1,111	801	3,941
CIRT 31	565	634	848	1,089	708	3,844
TETRONE	746	511	747	1,060	608	3,672
BILLION	766	742	617	895	608	3,628
COMET	696	762	669	893	589	3,609
CARAMBA	661	743	648	879	617	3,548
DALITA	623	354	657	1,184	684	3,502
EIRT 36	530	618	666	749	679	3,242
DOVEY	515	317	540	935	732	3,039
TEST MEAN	782	700	784	1,045	798	4,108
C. V. (%)	28	26	13	14	19	11
L. S. D. (.05)	261	213	122	171	178	526

PLANTED: SEPTEMBER 29, 1988.

SOIL: CAHABA FINE SANDY LOAM.

*DOVEY IS A FESCUE AND WAS INADVERTENTLY ENTERED IN THIS TEST

TABLE 3. SEASONAL DRY MATTER YIELD OF RYEGRASS VARIETIES AT THE SAND MOUNTAIN SUBSTATION, CROSSVILLE, ALABAMA, 1989

BRAND-VARIETY	ACRE YIELD BY HARVEST DATE								SEASON TOTAL
	3/15	3/28	4/12	4/21	5/08	5/25	6/07	7/06	
	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.
MULTIMO	465	420	546	802	1,505	449	669	1,090	5,946
HI 124	639	470	495	884	1,659	227	843	408	5,625
DALITA	123	324	540	858	1,487	389	535	1,020	5,276
URBANA	483	361	614	753	1,325	385	482	871	5,274
DOVEY	95	219	267	361	661	635	821	2,034	5,093
NUTRIBLEND	757	480	302	688	1,335	268	641	543	5,014
MARSHALL	812	451	472	767	1,404	247	795	-	4,948
TETRONE	320	391	591	712	1,046	225	653	823	4,761
MAX	387	369	519	630	1,131	325	524	795	4,680
EIRT 36	214	428	598	667	1,006	335	543	806	4,597
CIRT 31	416	396	464	528	918	287	563	949	4,521
BULLDOG	1,129	360	247	604	1,195	228	605	-	4,368
MSR 86-1	670	450	348	751	1,168	223	696	-	4,306
RUSTMASTER	778	457	312	600	1,306	170	623	-	4,246
FL-X 1986LR	764	262	288	862	1,168	236	646	-	4,226
BILLION	546	333	301	488	924	223	652	611	4,078
CARAMBA	573	331	312	401	855	292	478	768	4,010
COMET	522	352	306	506	1,064	234	536	489	4,009
NK TETRABLEND 444	666	293	317	437	1,019	305	465	451	3,953
FLORIDA 80	893	330	316	612	1,041	219	471	-	3,882
GULF	940	288	295	483	1,112	234	454	-	3,806
PENNPLOID V	634	358	291	484	1,195	222	473	-	3,657
MAGNOLIA	759	286	215	502	1,038	199	541	-	3,540
TEST MEAN	591	366	389	625	1,155	285	596	833	4,514
C. V. (%)	38	21	19	15	37	25	19	20	9
L. S. D. (.05)	268	91	89	112	500	84	137	199	456

PLANTED : OCTOBER 10, 1988.

SOIL: HARTSELLS FINE SANDY LOAM.

*DOVEY IS A FESCUE AND WAS INADVERTENTLY ENTERED IN THIS TEST

TABLE 4. TOTAL DRY MATTER YIELD OF RYEGRASS VARIETIES, 1988, AND TWO- AND THREE-YEAR AVERAGES, GULF COAST SUBSTATION, FAIRHOPE, ALABAMA

BRAND-VARIETY	DRY MATTER/ACRE		
	1989	2-YR. AV. (1988-1989)	3-YR. AV. (1987-1989)
	<u>LB.</u>	<u>LB.</u>	<u>LB.</u>
PENNPLOID V	5,721	6,100	6,237
GULF	5,671	6,193	6,027
MSR 86-1	5,605	6,376	-
FL-X 1986LR	5,564	6,341	6,410
MAGNOLIA	5,539	6,133	6,070
RUSTMASTER	5,453	-	-
FLORIDA 80	5,437	5,993	6,013
BULLDOG	5,382	6,318	6,372
NUTRIBLEND	5,232	5,931	5,978
NK TETRABLEND 444	4,916	5,623	6,197
EIRT 36	4,445	-	-
MARSHALL	4,359	5,669	5,931
DOVEY	4,330	-	-
HI 124	4,318	5,865	6,268
CIRT 31	4,094	-	-
DALITA	3,790	4,751	5,178
TETRONE	3,771	5,288	5,790
MAX	3,766	5,147	-
BILLION	3,763	4,915	5,491
CARAMBA	3,742	5,112	5,604
URBANA	3,690	5,183	5,859
MULTIMO	3,632	5,176	5,722
COMET	3,540	4,749	-

*DOVEY IS A FESCUE AND WAS INADVERTENTLY ENTERED IN THIS TEST.

TABLE 5. TOTAL DRY MATTER YIELD OF RYEGRASS VARIETIES,
1988, AND TWO- AND THREE-YEAR AVERAGES,
PLANT BREEDING UNIT, TALLASSEE, ALABAMA

BRAND-VARIETY	DRY MATTER/ACRE		
	1989	2-YR. AV. (1988-1989)	3-YR. AV. (1987-1989)
	<u>LB.</u>	<u>LB.</u>	<u>LB.</u>
HI 124	5,164	5,419	5,154
MARSHALL	5,034	5,525	5,431
BULLDOG	4,877	5,152	5,397
MSR 86-1	4,798	5,261	-
RUSTMASTER	4,596	-	-
FL-X 1986LR	4,530	5,279	5,790
MAGNOLIA	4,505	4,678	4,857
NUTRIBLEND	4,352	4,554	4,548
FLORIDA 80	4,157	4,664	4,745
MULTIMO	4,138	4,218	4,219
NK TETRA BLEND 444	4,132	4,541	4,898
PENNPLOID V	4,128	4,534	4,736
URBANA	4,082	4,773	5,032
GULF	3,958	-	-
MAX	3,941	4,237	-
CIRT 31	3,844	-	-
TETRONE	3,672	4,090	3,941
BILLION	3,628	4,156	4,264
COMET	3,609	4,314	-
CARAMBA	3,548	3,991	4,280
DALITA	3,502	3,717	3,517
EIRT 36	3,242	-	-
DOVEY	3,039	-	-

*DOVEY IS A FESCUE AND WAS INADVERTENTLY ENTERED IN THIS TEST.

TABLE 6. TOTAL DRY MATTER YIELD OF RYEGRASS VARIETIES,
1988, AND TWO- AND THREE-YEAR AVERAGES,
SAND MOUNTAIN SUBSTATION, CROSSVILLE, ALABAMA

BRAND-VARIETY	DRY MATTER/ACRE		
	1989	2-YR. AV. (1988-1989)	3-YR. AV. (1987-1989)
	<u>LB.</u>	<u>LB.</u>	<u>LB.</u>
MULTIMO	5,946	-	-
HI 124	5,625	4,326	5,125
DALITA	5,276	3,981	4,205
URBANA	5,274	4,055	4,882
DOVEY	5,093	-	-
NUTRIBLEND	5,014	3,846	4,477
MARSHALL	4,948	3,943	4,867
TETRONE	4,761	3,714	4,236
MAX	4,680	3,653	-
EIRT 36	4,597	-	-
CIRT 31	4,521	-	-
BULLDOG	4,368	3,586	4,464
MSR 86-1	4,306	3,335	-
RUSTMASTER	4,246	-	-
FL-X 1986LR	4,226	3,566	4,200
BILLION	4,078	3,190	4,039
CARAMBA	4,010	3,046	3,624
COMET	4,009	3,108	-
NK TETRABLEND 444	3,953	3,208	3,909
FLORIDA 80	3,882	3,216	3,550
GULF	3,806	-	-
PENNPLOID V	3,657	3,122	3,853
MAGNOLIA	3,540	2,995	3,818

*DOVEY IS A FESCUE AND WAS INADVERTENTLY ENTERED IN THIS TEST.

TABLE 7. THREE-YEAR AVERAGE SEASONAL DISTRIBUTION OF RYEGRASS VARIETY FORAGE PRODUCTION, GULF COAST SUBSTATION, FAIRHOPE, ALABAMA, 1987-1989

BRAND-VARIETY	SEASONAL FORAGE YIELD/ACRE				TOTAL
	AUTUMN	WINTER	EARLY SPRING	LATE SPRING	
	<u>LB.</u>	<u>LB.</u>	<u>LB.</u>	<u>LB.</u>	
FL-X 1986LR	381	1,918	3,122	989	6,410
BULLDOG	357	1,989	3,139	887	6,372
HI 124	546	1,675	3,198	850	6,268
PENNPLOID V	297	1,842	3,286	813	6,237
NK TETRA BLEND 444	491	1,903	3,013	790	6,197
MAGNOLIA	387	1,933	2,949	801	6,070
GULF	376	2,053	2,867	731	6,027
FLORIDA 80	243	1,854	2,994	922	6,013
NUTRIBLEND	394	1,555	3,178	851	5,978
MARSHALL	546	1,565	3,064	757	5,931
URBANA	476	1,893	2,650	840	5,859
TETRONE	482	1,539	2,825	944	5,790
MULTIMO	408	1,879	2,731	704	5,722
CARAMBA	675	1,705	2,506	717	5,604
BILLION	449	1,936	2,447	660	5,491
DALITA	485	1,253	2,647	792	5,178

TABLE 8. THREE-YEAR AVERAGE SEASONAL DISTRIBUTION OF RYEGRASS VARIETY FORAGE PRODUCTION, PLANT BREEDING UNIT, TALLASSEE, ALABAMA, 1987-1989

BRAND-VARIETY	SEASONAL FORAGE YIELD/ACRE				
	AUTUMN	WINTER	EARLY SPRING	LATE SPRING	TOTAL
	<u>LB.</u>	<u>LB.</u>	<u>LB.</u>	<u>LB.</u>	<u>LB.</u>
FL-X 1986LR	1,165	993	2,706	926	5,790
MARSHALL	1,411	672	2,567	782	5,431
BULLDOG	1,240	857	2,496	803	5,397
HI 124	1,137	498	2,727	792	5,154
URBANA	997	774	2,457	804	5,032
NK TETRABLEND 444	946	860	2,327	765	4,898
MAGNOLIA	1,340	994	1,971	553	4,857
FLORIDA 80	884	841	2,289	730	4,745
PENNPLOID V	880	852	2,258	746	4,736
NUTRIBLEND	1,089	758	2,107	594	4,548
CARAMBA	941	783	1,869	687	4,280
BILLION	1,024	810	1,755	674	4,264
MULTIMO	898	496	2,092	733	4,219
TETRONE	892	432	2,061	555	3,941
DALITA	776	311	1,827	602	3,517

TABLE 9. THREE-YEAR AVERAGE SEASONAL DISTRIBUTION OF RYEGRASS VARIETY FORAGE PRODUCTION, SAND MOUNTAIN SUBSTATION, CROSSVILLE, ALABAMA, 1987-1989

BRAND-VARIETY	SEASONAL FORAGE YIELD/ACRE				TOTAL LB.
	AUTUMN	WINTER	EARLY SPRING	LATE SPRING	
	LB.	LB.	LB.	LB.	
HI 124	-	500	2,505	2,120	5,125
URBANA	-	642	2,352	1,888	4,882
MARSHALL	-	801	2,369	1,697	4,867
NUTRIBLEND	-	868	2,058	1,551	4,477
BULLDOG	-	896	2,078	1,489	4,464
TETRONE	-	287	2,232	1,716	4,236
DALITA	-	135	2,124	1,946	4,205
FL-X 1986LR	-	569	2,117	1,514	4,200
BILLION	-	755	1,716	1,568	4,039
NK TETRA BLEND 444	-	600	1,829	1,480	3,909
PENNPLOID V	-	699	1,835	1,320	3,853
MAGNOLIA	-	726	1,780	1,313	3,818
CARAMBA	-	607	1,562	1,455	3,624
FLORIDA 80	-	679	1,733	1,138	3,550

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

