

Mississippi **FORAGE CROP**



VARIETY TRIALS 2002



Experiment Station
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Mississippi Agricultural & Forestry Experiment Station

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This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station. Joint sponsorship by the organizations listed on page 14 is gratefully acknowledged.

Commercial and public varieties tested in this research project (trade names, experiment code names or numbers, etc.) and source of seed are listed on page 14.

Mississippi Forage Crop Variety Trials, 2002

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Mississippi Forage Crop Variety Trials, 2002

INTRODUCTION

New, improved, and standard varieties of forage crops are evaluated in MAFES small-plot trials each year. Seed for the trials are obtained from commercial seed companies and state universities and tested at a number of locations in Mississippi. All entries from privately owned companies are tested on a fee basis. The Forage Crop Evaluation Committee may enter varieties of interest or proven varieties to be used as standards. This report contains data collected in 2001-02 on the performance of annual ryegrass, tall fescue, other cool-season perennial grasses, bermudagrass, and bahiagrass.

A randomized complete block design with three to four replications, depending on location, was used. Plot yield was adjusted to 95% dry matter. Visual notes on botanical composition were used to adjust total herbage yield to yield based upon the variety being evaluated unless noted in each particular table. These data

were analyzed within locations and within harvest dates. The timing and number of harvests during the season varied by location because of different planting dates and growing conditions. Protein and digestibility were determined on ryegrass harvested at Newton, Mississippi, during the spring of 2001 (Table 4).

The summer of 2001 was generally moist with adequate rainfall throughout the state. The winter of 2001-2002 was moist and relatively mild. Data presented in Tables 1-22 can be used to evaluate the relative performance of each forage variety at each location. Comparisons can be statistically evaluated by using the LSD (Least Significant Difference). The LSD value represents the amount of yield which varieties must differ by in order to determine whether the difference between varieties could have happened by chance alone.

Table 1. Dry matter yield of ryegrass varieties, Brown Loam Branch, Raymond, MS, 2001-2002.

Variety	Harvest date			Total yield
	1/17/02	3/19/02	4/29/02	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
01 - Oretar	2889	2472	4346	9707
Abundant	2678	2277	3496	8450
BB - Mex1	2622	2346	4111	9079
BarFa1004 (<i>TF</i>)	1076	996	3088	5160
Big Daddy	2936	2206	3302	8444
BridgadierD	3480	2635	3515	9630
EdArg	3233	3013	3844	10090
FL10K2001	2645	2284	4120	9049
FLx2001new	2546	2390	3442	8359
FLX2001new1	2533	2281	3997	8811
Fline2001	2749	2463	4192	9405
Feast II	2703	2115	3240	8058
ItalianB4432	2983	2223	3676	8882
Jackson	3083	2489	3745	9317
Jivet	2372	2171	3286	7829
Jumbo	2556	2574	3893	9023
King	3323	2804	4019	10145
Lonestar	3356	3303	3427	10086
ME94	3140	2646	3993	9778
Marshall	2788	3008	3710	9507
Passerel Plus	2575	2864	4319	9757
Plainview	2767	2275	3553	8595
Prairie0002 (<i>B</i>)	1458	2403	3509	7370
PrineTetra	2626	2649	3620	8895
Ribeye	2605	2496	4319	9419
Rio	3119	2545	3773	9437
Rustmaster	3387	2629	3990	10006
SCH - 5	2789	2781	4248	9818
Stampede	2889	2607	3792	9287
Tam 90	2830	3006	3318	9154
TxR2000-2	3014	2040	3754	8808
TxR2001-10	3095	2550	4113	9758
TxR2001-8	2482	1948	3499	7930
WMN97	2775	2009	4125	8909
Winterstar	2960	2403	3646	9010
Mean	2874	2470	3786	9078
CV%	21	20	15	11
LSD (0.05)	NS	677	828	1406
Soil: Loring Silt Loam Planted: 10/5/01 Fertilizer: 0-60-60 — 10/18/01 200 lb/A 34-0-0 — 10/18/01, 1/22/02, and 3/28/02 Herbicide: None BarFa1004 (<i>TF</i>) = Tall Fescue Prairie0002 (<i>B</i>) = Prairie Bromegrass				

Table 2. Dry matter yield of ryegrass varieties, Coastal Plain Branch, Newton, MS, 2001-2002.

Variety	Harvest date				Total yield
	1/22/02	2/21/02	3/27/02	4/30/02	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
01 - Oretar	1020	1711	2068	1438	6237
Abundant	1300	1507	1925	1691	6423
BarFa1004 (<i>TF</i>)	304	986	2018	2137	5444
BB - Mex1	1497	1530	1898	1647	6572
Big Daddy	1149	1661	1768	1487	6065
BridgadierD	1343	1674	2097	1544	6658
EdArg	1630	1554	2034	1445	6663
Feast II	1095	1530	1663	1760	6056
FL10K2001	1001	1803	2133	1538	6475
Fline2001	879	1703	2081	1502	6165
FLx2001new	1137	1572	1922	1556	6187
FLX2001new1	1206	1513	1848	1552	6120
ItalianB001	882	1376	1825	1326	5408
ItalianB4432	853	1556	1556	1496	5461
Jackson	1240	1630	2289	1345	6504
Jivet	970	1483	1932	1800	6186
Jumbo	1197	1562	1911	1681	6351
King	1250	1581	2010	1503	6343
Lonestar	1267	1710	1910	1468	6355
Marshall	1368	1604	2426	1999	7396
ME94	1212	1559	2047	1557	6374
Passerel Plus	1581	1400	2028	1814	6824
Plainview	865	1487	1956	1873	6182
Prairie0002 (<i>B</i>)	401	1952	2297	2053	6703
PrineTetra	1171	1714	1881	1574	6340
Ribeye	1234	1577	1887	1717	6416
Rio	1615	1506	1865	1734	6721
Rustmaster	1048	1894	2100	1551	6593
SCH - 5	1022	1811	2066	1551	6450
Stampede	1161	1603	2130	1633	6527
Tam 90	1207	1580	1872	1456	6115
TxR2000-2	866	1158	1869	1854	5747
TxR2001-10	1208	1445	2059	1641	6353
TxR2001-8	811	1292	1914	1896	5912
Winterstar	1263	1546	1836	1670	6316
WMN97	1198	1676	2232	1730	6836
Mean	1124	1568	1982	1645	6319
CV %	14	10	7	10	4
LSD (0.05)	258	252	231	257	462

Soil: Prentiss Fine Sandy Loam
 Planted: 9/26/01
 Fertilizer: 10/9/01 — 65-65-65 11/27/01 — 68-0-0 2/4/02 — 68-0-0 3/28/02 — 68-0-0 4/23/02 — 68-0-0
 Herbicide: 1 qt/A Weedmaster — 1/10/02
 BarFa1004 (*TF*) = Tall Fescue Prairie0002 (*B*) = Prairie Bromegrass

Table 3. Dry matter yield of ryegrass varieties at Starkville, MS, 2001-2002.

Variety	Stand	Harvest date					Total yield	Heading 5/15/02
		12/12/01	12/12/01	2/15/02	3/25/02	4/19/02		
	%	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A	%
01-Oretar	94	1004	1530	1490	2281	2215	8520	29
Abundant	98	1128	1250	1922	2592	2226	9118	29
BB-Mex1	97	933	1737	1702	2859	1929	9160	39
BarFa1004 (TF)	96	88	251	1059	1887	1604	4889	1
Big Daddy	99	1034	1120	1755	2264	2075	8248	42
Bridgadier D	99	1327	1781	1820	2461	2498	9817	25
EdArg	99	1216	1795	1657	2219	1896	8783	37
FL10K2001	99	1145	1322	1409	1916	1879	7671	31
FLX2001new1	98	1380	1636	1404	2494	2097	9012	28
FLine2001	99	1141	1390	1914	2363	2097	8904	36
FLx2001new	97	1181	1675	1523	2510	2120	9008	32
Feast II	100	1269	753	1600	1969	2754	8344	11
Italian B001	99	1154	1062	1779	1915	2327	8238	27
Italian B4432	100	1132	1038	1156	1944	1957	7227	26
Jackson	97	1221	1911	1681	2605	2097	9515	26
Jivet	97	1260	1732	1775	2652	1996	9390	33
Jumbo	98	1022	1477	1441	2178	2709	8826	32
King	98	880	1399	1620	2133	1688	7721	32
Lonestar	98	1123	1781	1665	2428	2540	9538	36
ME94	98	712	1149	1905	2088	2097	7951	29
Marshall	99	1380	1385	1466	2674	2148	9053	38
Passerel Plus	98	1083	1129	1457	2137	2501	8308	44
P-1	99	1083	893	1258	2170	2552	7956	28
Prairie0002 (B)	96	637	550	949	2084	1312	5532	38
PrineTetra	97	1362	1129	1958	2379	2597	9425	30
Ribeye	99	1389	1477	1710	2034	2260	8870	39
Rio	100	1194	1901	1661	2375	2086	9218	39
Rustmaster	99	1238	1361	1877	2260	1666	8402	29
SCH-5	99	968	1477	1909	2617	2417	9389	29
Stampede	99	955	1428	2044	2190	2254	8872	44
Tam 90	99	1252	1800	1400	2469	2092	9013	38
TxR2000-2	99	915	1129	1534	2387	2658	8625	34
TxR2001-10	98	668	1091	1938	2215	2294	8203	35
TxR2001-8	97	646	705	1791	2363	1856	7360	27
WMN97	99	1252	1443	1836	2379	1974	8884	30
Winterstar	99	1132	1366	1592	2219	2092	8401	49
Mean	98	1070	13335	1629	2297	2153	8483	32
CV %	2	32	30	26	14	27	12	29
LSD (0.05)	3	487	553	591	450	800	1384	13

Planted: 10/9/01
 Soil: Marietta Loam
 Fertilizer: 500 lb/A 15-5-10 — 10/23/01 200 lb/A 32-0-0 — 12/12/01 200 lb/A 34-0-0 — 2/18/02 and 4/22/02
 Herbicide: 2-4D at 1 pt/A — 12/12/01 (with N-Sol)
 BarFa1004 (TF) = Tall Fescue Prairie0002 (B) = Prairie Bromegrass

Table 4. Percentage crude protein (CP), fiber (ADF and NDF), and in-vitro total digestibility (IVTD) of ryegrass samples harvested in spring 2001 at two dates.

Variety	3/27/01 Cutting					4/30/01 Cutting				
	Yield	CP	NDF	ADF	IVTD	Yield	CP	NDF	ADF	IVTD
	<i>lb/A</i>	%	%	%	%	<i>lb/A</i>	%	%	%	%
Assertive	1681	16.4	49.1	26.9	85.2	1260	10.5	61.8	34.4	72.0
Bestfor II	1903	16.2	50.0	27.3	84.8	1226	10.9	57.2	31.9	76.5
Big Daddy	1650	16.6	50.3	28.8	83.2	1414	9.0	65.1	35.7	70.6
Brigadier	1670	15.4	50.6	28.0	84.2	1119	8.8	62.6	33.4	72.5
Ed	1716	17.1	48.3	27.1	85.2	1266	9.2	60.4	33.0	73.6
Fantastic	1515	17.1	50.0	27.8	84.4	1307	9.3	60.2	32.3	73.6
Florina	1682	16.5	49.6	28.1	84.4	1086	9.5	57.6	30.0	76.8
FLX2000 (New)										
4XLR mid-late	1752	17.2	49.6	27.9	84.5	1306	9.9	58.6	31.6	75.0
FLX2000 (New 1)										
4XLR late	1703	18.4	49.4	28.8	84.3	1116	9.6	58.1	30.4	76.6
Gulf	1491	16.9	50.0	28.1	84.5	1427	10.3	61.2	33.4	73.2
Jackson	1666	18.5	48.6	27.8	84.9	1154	10.3	57.9	30.7	76.1
Jumbo	1664	17.5	47.9	27.2	85.3	1087	10.8	58.3	31.7	74.7
King	1556	17.1	49.2	27.6	84.8	1201	9.8	62.9	33.5	72.9
Louisiana	1554	16.9	48.7	27.5	84.9	1142	9.8	63.3	34.1	71.1
Marshall	1876	16.1	52.2	29.6	83.2	1169	9.0	56.3	29.3	77.6
MCX	1726	17.0	50.1	28.7	84.2	1386	11.2	58.8	32.5	74.7
ME 94	1918	17.7	49.7	28.7	83.9	1117	9.7	55.7	29.5	77.5
Passerel Plus	1832	15.4	50.9	27.2	85.0	1328	10.4	57.0	30.7	77.0
Prine	1733	17.6	48.4	27.3	85.3	1122	10.6	57.7	32.6	74.6
Ribeye	1804	16.4	50.7	28.8	84.4	1243	9.8	59.9	32.1	74.2
Rio	1856	17.0	50.6	28.9	83.5	1088	10.5	55.8	30.4	76.5
Stampede	1801	17.0	49.7	27.4	85.1	1140	10.1	57.3	31.2	75.9
Surrey II	1786	18.0	49.5	28.0	84.7	1052	9.8	57.4	30.7	76.0
Tam	1475	17.2	47.5	26.7	85.7	1533	10.1	60.8	32.2	74.0
TAM 90	1759	17.3	49.9	27.5	84.9	1182	10.0	58.3	31.3	76.0
TXR 2000-2	1817	16.1	50.1	27.8	84.1	1126	9.8	56.2	30.6	76.7
TXR 99-Beau	1927	16.1	49.6	27.4	84.7	1179	9.7	62.7	33.6	72.2
TXR 2000-T1	1799	14.7	50.5	26.8	85.0	1215	10.1	57.3	30.5	76.4
WMN 97	1863	16.8	51.1	28.8	84.0	1044	10.7	54.7	29.5	77.5
WVPB AR 99-M	1876	17.7	49.5	27.6	84.9	1078	9.8	55.6	29.6	77.5
WVPB AR 98-7	1620	17.5	50.2	28.0	84.8	1339	9.9	63.9	34.4	71.6
WVPB AR 99-L	1933	17.4	49.5	27.9	84.7	1059	11.6	55.0	30.6	77.3
Mean	1738	16.9	49.7	27.9	84.6	1203	10.0	58.9	31.8	74.9
CV %	10	6.4	3.4	4.0	1.1	16	12.1	3.8	3.4	1.8
LSD (0.05)	278	1.9	3.0	2.0	1.6	312	1.6	4.0	2.0	2.5

Ryegrass samples were evaluated by near-infrared spectroscopy at the Forage Analysis Laboratory in Franklinton, Louisiana. Samples were analyzed on a dry matter basis. Nitrogen fertilizer was applied as 34-0-0 at 100 lb/A on 2/21/01 and 3/27/01.

Table 5. Dry matter yield of tall fescue varieties, Brown Loam Branch, Raymond, MS, 2001-2002.

Variety	Harvest date			Total yield
	12/19/01	4/15/02	6/5/02	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
AGRFA 103	1706	3436	2937	8079
AGRFA 110	1581	3337	2974	7891
Bronson	2054	3051	3433	8539
CAS EA 79	1554	4607	3367	9528
GA 001 542	2188	5107	4223	11518
GA 002 542	2259	4745	3156	10160
GA 003 542	1768	3364	3124	8256
GA 5 F1	2259	4221	3203	9683
GA 5 Max Q	2313	3567	3727	9607
Hoedown	1804	3395	3605	8804
Jesup F1	884	3147	3813	7844
Jesup Max Q	1786	3680	3568	9034
Kentucky 31	1768	3273	3467	8508
Quincy	1554	4060	3116	8730
Stag	1518	4678	3505	9702
WVPB 97-C-1	2170	4169	3359	9698
WVPB 99KSM	2036	3676	3781	9493
Mean	1835	3854	3433	9122
CV%	40	20	19	15
LSD (0.05)	NS	1089	NS	1963
Soil:	Loring Silt Loam			
Planted:	10/11/00			
Fertilizer:	350 lb/A 17-17-17 — 10/18/01		175 lb/A 34-0-0 — 12/19/01 and 4/22/02	
Herbicide:	None			

Table 6. Dry matter yield of tall fescue varieties, Coastal Plain Branch, Newton, MS, 2001-2002.

Variety	Harvest date				Total yield	Stand 2/12/02
	12/3/01	2/12/02	3/27/02	4/23/02		
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	%
Quincy	1889	487	822	2508	5706	95
WVPB 97-C-1	2014	483	704	2483	5684	92
WVPB 99KSM	2099	545	860	2456	5960	92
CAS EA 79	2004	584	981	2416	5985	95
Stag	2389	573	1082	2576	6620	86
Hoedown	2256	696	894	2305	6151	92
Ga 5 Max Q	2683	691	933	2208	6516	93
Jesup Max Q	2274	563	975	2434	6247	91
GA 5 FI	2730	602	939	2382	6652	95
Jesup FI	2253	531	896	2315	5996	96
Ga 001 542	2430	668	1051	2264	6413	93
Ga 002 542	2402	669	1209	2185	6465	94
Ga 003 542	1810	528	888	2390	5616	82
Kentucky 31	2277	438	693	2467	5875	93
Bronson	1594	609	870	2287	5316	84
AGRFA 103	1207	1137	1427	2133	5359	96
AGRFA 110	699	816	1339	1329	4775	81
Mean	2059	625	974	2337	5961	91
LSD (0.05)	647	143	250	257	1032	9
CV%	19	14	15	7	10	6
Planted:	10/16/00 — 20 lb/A					
Soil:	Prentiss fine sandy loam					
Fertilizer:	500 lb/A 13-13-13 — 10/2/01		200 lb/A 34-0-0 — 12/3/02, 3/28/02, and 4/23/02			
Herbicide:	None					

Table 7. Dry matter yield of tall fescue, Mississippi State, MS, 2001-2002.

Variety	Harvest date				Total yield	Heading 5/15/02	Stand 10/17/01
	10/24/01	2/15/02	4/10/02	5/15/02			
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	%	%
AGRFA103	2639	1870	1407	1668	7583	39	96
AGRFA110	3049	1140	1477	1792	7459	26	95
Bronson	3402	438	1195	2269	7304	67	99
CASEA79	2257	711	1651	2383	7002	38	99
GA001542	2388	602	1612	2550	7152	25	99
GA002542	3078	629	1343	2023	7072	25	100
GA003542	2701	629	1323	2454	7108	61	100
GA5FI	2667	401	1169	2781	7019	66	100
GA5MaxQ	2752	821	1233	2488	7295	56	100
Hoedown	2741	620	951	2162	6474	64	99
JessupFI	2257	465	1124	2027	5873	54	99
JessupMaxQ	2468	456	970	2098	5992	48	100
KY31	2394	684	790	2764	6631	85	100
Quincy	2622	447	1253	2498	6819	71	100
Stag	2798	666	1336	2248	7048	70	100
WVPB97c1	22382	739	1124	2251	6496	90	100
WVPB99ksm	2787	483	1021	2699	6991	80	100
Mean	2670	694	1234	2303	6901	57	99
CV %	19	43	21	13	10	23	2
LSD (0.05)	723	425	367	418	1004	19	2
Soil: Marietta Loam							
Planted: 10/23/00							
Fertilizer: 400 lb/A 15-5-10 — 9/12/01 200 lb/A 32-0-0 (N-Sol) — 12/12/01 200 lb/A 34-0-0 — 2/18/02 200 lb/A 34-0-0 — 4/22/02							
Herbicide: 2-4D at 1 pt/A — 2/12/01 (with N-Sol)							

Table 8. Dry matter yield of cool-season grasses, Mississippi State, MS, 2001-2002.

Species	Variety	Harvest date				Total yield	Heading 5/15/02	Stand 5/15/02
		10/24/01	2/8/02	4/19/02	5/15/02			
		<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	%	%
Prairiegrass	AGR MW 101	456	788	2339	1020	4604	28	80
	D 5633	654	1105	2140	1202	5101	25	71
	M 5632	648	1153	1502	1078	4381	29	88
	G. Matua	530	1009	2490	1116	5145	39	92
	Lupreme	30	1624	2799	1161	5614	19	88
	Matua	812	1335	2456	1202	5805	35	81
	Stocker	460	1124	2552	1169	5305	34	89
	Gala	24	1396	3018	721	5161	22	53
Reed Canarygrass	AGR PA 101	673	666	2067	911	4317	18	38
Orchardgrass	Quantum	2487	1249	1797	1262	6796	2	95
Tall Fescue	Barcel	2467	942	2044	1297	6750	23	98
	R 4663	2773	2383	2671	686	8513	1	95
	Q 4508	3212	1028	3519	1544	9303	2	99
Mean		1172	1199	2405	1126	5902	22	83
CV %		54	42	24	18	21	40	14
LSD (0.05)		949	744	867	301	1876	13	18
Soil: Marietta Loam								
Planted: 10/23/00								
Fertilizer: 400 lb/A 15-5-10 — 9/12/01 200 lb/A 32-0-0 (N-Sol) — 12/12/01 200 lb/A 34-0-0 — 2/18/02 and 4/22/02								
Herbicide: 2-4D at 1 pt/A — 12/12/01 (with N-Sol)								

Table 9. Dry matter yield of bermudagrass varieties, Brown Loam Branch, Raymond, MS, 2001.

Variety	Harvest date			Total yield
	7/31/01	8/28/01	10/10/01	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Alicia	2488	3455	4077	10020
Callie	3710	4954	3822	12486
Coastal	2429	3801	4539	10769
Common	1887	3248	3115	8250
Meriwether	2211	3184	3896	9291
Lott	2642	3205	3689	9536
McDonald	2945	2567	3508	9020
Russell	2594	2902	3625	9121
Sumrall 007	3939	3487	4242	11667
Tanberg	2961	4167	2982	10110
Tifton 44	2849	3779	5145	11774
Tifton 78	1823	3790	3992	9605
Tifton 78WH	1478	4173	2987	8638
Tifton 85	2594	2838	4205	9637
World Feeder	2434	4284	3630	10349
Mean	2599	3589	3830	10018
CV %	26	17	17	12
LSD (0.05)	952	883	925	1755
Soil:	Loring Silt Loam			
Planted:	5/21/01			
Fertilizer:	350 lb/A 17-17-17 — April 175 lb/A 34-0-0 — July and August			
Herbicide:	None			
Yield =	Bermudagrass; weeds hand separated at harvest.			

Table 10. Dry matter yield of bermudagrass, Coastal Plain Branch, Newton, MS, 2001.

Variety	Harvest date				Total yield	7- year average ¹
	5/1/01	6/12/01	7/30/01	9/26/01		
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Alicia	1280	2700	3820	4783	12583	9038
Coastal	701	2828	3615	3913	11057	8353
Common	0	2385	2672	2520	7577	5652
Grazer	263	2310	2392	3996	8960	5143
Hardie	472	2515	2280	4542	9809	5930
Lancaster	0	1961	2065	3210	7294	4855
Lott	456	2399	2320	4208	9382	7243
Murphy	678	2797	3233	4141	10848	7582
Poplarville	0	2724	2536	4858	10118	6256
Sumrall 007	962	3053	2710	4162	10887	8463
Tifton 85	893	3364	3655	4094	12005	9110
Tifton 78 WH	1074	2442	3084	3847	10447	8905
Tifton 78	1112	2903	3345	4095	11454	9133
Tifton 44	1323	3040	3839	4446	12648	9607
Mean	658	2673	2969	4062	10362	7519
CV %	34	9	14	8	13	—
LSD (0.05)	512	433	705	643	905	—
¹ Four-year averages are presented for Lott and Sumrall 007; these forages were not planted until April 1997.						
Soil:	Prentiss Fine Sandy Loam					
Planted:	4/19/94					
Fertilizer:	500 lb/A 13-13-13 — 4/12/01 200 lb/A 34-0-0 — 5/17/01, 6/29/01, and 8/6/01					
Herbicide:	Diuron @ 1qt/A — 5/17/01					
Yield =	Bermudagrass; weed control was excellent. Other grasses and broadleaf weeds subtracted out.					

Table 11. Dry matter yield of bermudagrass at Mississippi State, MS, 2001.

Variety	Harvest date				Total yield	Stand 5/23/01	Stand 9/19/01
	5/23/01	6/19/01	7/23/01	9/5/01			
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	%	%
Alicia	2115	2962	4450	3370	12897	98	100
Coastal	1368	2542	3961	3336	11207	95	96
McDonald	1728	3156	4522	3091	12497	96	100
Murphy	1081	1387	2292	456	5216	78	68
Russell	2257	2928	4504	3165	12855	91	100
Sumrall 007	1912	3506	4862	3556	13835	96	100
Tanberg	2010	3078	4564	3471	13122	99	100
Tifton 44	1450	2445	3558	2981	10434	90	97
Tifton 78	1035	1944	2924	2982	8884	64	80
Tifton 78WH	1009	2256	3096	2610	8972	68	85
Tifton 85	500	3122	2658	2937	9017	38	55
Common	1025	2508	3197	1990	8742	75	99
Mean	1372	2653	3716	2812	10638	82	90
CV %	31	16	18	22	16	19	12
LSD (0.05)	656	607	980	878	2431	22	15

Planted: Russell, 4/27/95; Sumrall 007, 6/17/96; Tanberg, Tifton 85, and McDonald, 6/19/97; Common, Volunteered; and all others, 6/7/93
 Soil: Marietta Loam
 Fertilizer: 350 lb/A 15-5-10 — 4/16/01 150 lb/A 34-0-0 — 6/19/01 and 7/24/01 400 lb/A 15-5-10 Rainbow — 9/10/01
 Herbicide: None
 Yield = Bermudagrass with other grasses subtracted out. See Table 12.

Table 12. Dry matter yield of other grasses in bermudagrass at Mississippi State, MS, 2001.

Variety	Harvest date				Total yield
	5/23/01	6/19/01	7/23/01	9/5/01	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Alicia	368	124	359	229	1256
Coastal	252	204	403	471	1408
McDonald	435	166	184	262	1056
Murphy	944	478	1609	3091	7850
Russell	428	188	441	240	1606
Sumrall 007	251	101	135	95	562
Tanberg	228	199	74	98	477
Tifton 44	607	359	1046	625	3062
Tifton 78	873	284	1046	669	4092
Tifton 78WH	696	464	874	1085	3904
Tifton 85	1024	731	1877	1263	4366
Common	445	435	773	1110	2652
Mean	546	640	735	770	2691
CV %	62	73	78	84	61
LSD (0.05)	483	672	951	934	2361

Planted: Russell, 4/27/95; Sumrall 007, 6/17/96; Tanberg, Tifton 85, and McDonald, 6/19/97; Common, Volunteered; and all others, 6/7/93
 Soil: Marietta Loam
 Fertilizer: 350 lb/A 15-5-10 — 4/16/01 150 lb/A 34-0-0 — 6/19/01 and 7/24/01 400 lb/A 15-5-10 Rainbow — 9/10/01
 Herbicide: None

Table 13. Dry matter yield of experimental bermudagrasses, Mississippi State, MS, 2001.

Variety	Harvest date			Total yield	Stand 6/8/01	Stand 9/7/01
	6/8/01	7/30/01	9/7/01			
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	%	%
Coastal	1342	2282	4467	8091	88	98
Lott	217	1284	1735	3235	24	46
Poplarville	1033	4263	2690	7986	83	88
Sumrall 007	1163	4475	4547	10185	80	100
Tifton 44	1460	4742	5128	11328	81	97
Tifton 85	860	4449	4482	9791	61	90
Mean	1012	3582	3841	8436	69	87
CV %	25	42	20	21	13	9
LSD (0.05)	380	2275	1145	2623	13	12
Planted: 6/4/96 Soil: Marietta Loam Fertilizer: 350 lb/A 15-5-10 — 4/16/01 150 lb/A 34-0-0 — 6/11/01 and 8/2/01 400 lb/A 15-5-10 — 9/10/01 Herbicide: None Yield = Bermudagrass; minimal weeds. Other grasses and broadleaf weeds subtracted out.						

Table 14. Dry matter yield of bermudagrass started from green clippings, Mississippi State, MS, 2001.

Variety	Harvest date		Total yield	Stand 8/3/01	Stand 9/13/01
	8/3/01	9/13/01			
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	%	%
BY 101	3403	4173	7576	93	95
Dixie I	3026	3508	6535	80	89
Dixie II	1102	4144	5246	53	92
Sumrall 007	1937	3558	5495	65	90
Tifton 44	275	476	751	18	21
World Feeder	38	1030	1068	14	40
Mean	1409	2421	3830	54	71
CV %	48	37	33	26	21
LSD (0.05)	1062	1447	2014	21	23
Soil: Marietta Loam Planted: 6/10/2001 Fertilizer: 150 lb/A 34-0-0 — 6/20/01 150 lb/A 34-0-0 — 7/11/01 400 lb/A 15-5-10 Rainbow — 8/10/01 Irrigation: 1 acre-inch at planting Herbicide: None Yield = Bermudagrass; other grasses and broadleaf weeds subtracted out. See Table 15.					

Table 15. Dry matter yield of other grasses and broadleaf weeds in bermudagrass started from green clippings, Mississippi State, MS, 2001.

Variety	Harvest date		Total yield
	8/3/01	9/13/01	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
BY 101	597	378	975
Dixie I	1298	474	1772
Dixie II	2005	647	2652
Sumrall 007	1628	425	2052
Tifton 44	2441	2328	4768
World Feeder	2153	1987	4140
Mean	1687	1040	2727
CV %	49	63	43
LSD (0.05)	1235	982	1769
Soil: Marietta Loam Planted: 6/10/2001 Fertilizer: 150 lb/A 34-0-0 — 6/20/01 150 lb/A 34-0-0 — 7/11/01 400 lb/A 15-5-10 Rainbow — 8/10/01 Herbicide: None			

Table 16. Dry matter yield of seeded bermudagrass , Mississippi State, MS, 2001.

Variety	Harvest date			Total yield	Stand		
	7/10/01	8/7/01	9/13/01		7/10/01	8/3/01	9/13/01
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	%	%	%
Cheyenne	610	2617	3557	6857	83	80	95
Common-K	497	3037	3236	6770	88	91	98
Common-S	599	3561	2832	6991	80	90	89
DLF-BERI	4	64	1374	1442	3	6	46
Gaicho	528	3151	3083	6762	85	93	94
Giant	865	3749	2818	7431	91	95	100
Pasto Rico	981	3856	3582	8418	78	86	99
Sungraze	123	2231	2796	5150	49	79	88
Texas Tough	1221	4717	3550	9488	95	91	100
Tierra Verde	987	3780	3047	7814	86	88	99
Mean	649	3076	2988	6712	67	74	83
CV %	45	26	31	25	15	15	20
LSD (0.05)	428	1151	1359	2393	14	15	23

Planted: 5/30/01
 Soil: Marietta Loam
 Irrigation: 0.5 inches of water to germinate seed
 Fertilizer: 150 lb/A 34-0-0 — 6/20/01 and 7/11/01 400 lb/A 15-5-10 — 8/10/01
 Herbicide: None
 Yield = Bermudagrass; other grasses and broadleaf weeds subtracted out. See Table 17.

Table 17. Yield of weedy grasses in seeded bermudagrass, Mississippi State, MS, 2001.

Variety	Harvest date			Total yield	Grass weeds and BLW		
	7/10/01	8/7/01	9/13/01		7/10/01	8/3/01	9/13/01
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	%	%	%
Cheyenne	683	600	242	1452	41	22	12
Common-K	523	461	539	1523	52	14	14
Common-S	425	649	609	1683	44	16	23
DLF-BERI	1024	2766	1172	4962	87	97	78
Gaicho	540	471	326	1337	49	14	15
Giant	122	154	81	357	16	5	6
Pasto Rico	279	504	80	862	21	12	7
Sungraze	1059	1004	399	2461	81	35	22
Texas Tough	123	240	86	449	9	6	6
Tierra Verde	214	307	199	719	20	10	11
Mean	492	716	373	1580	42	23	19
CV %	59	70	94	57	58	49	74
LSD (0.05)	419	731	511	1310	35	16	21

Planted: 5/30/01
 Soil: Marietta
 Fertilizer: 150 lb/A 34-0-0 — 6/20/01 and 7/11/01 400 lb/A 15-5-10 — 8/10/01
 Herbicide: None
 Other grasses = barnyardgrass, crabgrass; BLW = pigweed as percent composition.

Table 18. Dry matter yield of bahiagrass at Mississippi State, MS, 2001.

Variety	Harvest date					Total yield
	5/14/01	6/19/01	7/23/01	9/5/01	10/24/01	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Pensacola	1073	2658	3366	2694	1277	11068
Tifton 9	1340	3485	4705	2800	1394	13714
Mean	1206	3071	4035	2747	1330	12391
CV %	15	28	12	2	27	10
LSD (0.05)	414	1967	1048	102	804	2727
Planted: 5/25/94 Soil: Marietta Loam Fertilizer: 350 lb/A 15-5-10 — 4/18/01 150 lb/A 34-0-0 — 5/16/01, 6/19/01, and 7/24/01 Herbicide: None Yield = Bahiagrass; weed free.						

Table 19. Dry matter yield of eastern gamagrass selections at Mississippi State, MS, 2000.

Selection	Harvest date		Total yield
	6/8/00	8/6/00	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
9062680	8290	3319	11608
9058543	5304	2428	7732
9062708	3817	1849	5666
9062714	1741	2079	4820
Mean	5043	2445	7487
CV %	47	39	43
LSD (0.05)	2516	1003	3378
Planted: 2/25/94 Soil: Marietta Loam Fertilizer: 400 lb 15-5-10 — 4/19/00 150 lb 34-0-0 — 6/8/00 Herbicide: None			

Table 20. Dry matter yield of eastern gamagrass selections at Mississippi State, MS, 2001.

Selection	Harvest date			Total yield
	5/14/01	6/25/01	8/7/01	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
9062680	4621	3368	2782	10771
9058543	2573	4203	5774	12550
9062708	1890	4239	3906	10035
9062714	1340	4064	4605	10009
Mean	2611	3954	4301	10866
CV %	44	14	18	13
LSD (0.05)	1205	593	809	1492
Planted: 2/25/94 Soil: Marietta Loam Fertilizer: 350 lb 15-5-10 — 4/16/01 150 lb 34-0-0 — 5/22/01 150 lb 34-0-0 — 6/26/01 Herbicide: None				

Table 21. Dry matter yield of experimental dallisgrass lines at Prairie, MS, 2001.

Line	Harvest date		Total yield
	6/12/01	9/10/01	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
432	3589	11253	14842
458	4214	10478	14691
459	3469	10073	13542
460	3201	8848	12049
461	3229	10253	13482
554	3430	9539	12969
Common	3454	9510	12963
Mean	3512	9993	13507
CV %	18	5	7
LSD (0.05)	924	657	1395

Planted: April 2000
 Soil: Houston Clay
 Fertilizer: 100 lb 34-0-0 — April 2000 and 6/12/01
 Herbicide: None
 Yield = Dallisgrass; weed free.

Table 22. Dry matter production and forage quality of soybeans at Prairie, MS, 2001.

Variety	Seed rate	Yield at R3	Quality			
			CP	ADF	NDF	IVDMD
	<i>lb/A</i>	<i>lb/A</i>	%	%	%	%
Donegal	40	7235	17.7	38.8	50.1	77.4
Donegal	50	6721	17.8	39.6	51.5	75.5
Donegal	60	8385	15.1	40.8	52.3	72.8
Laredo	40	5606	18.0	35.6	46.7	77.2
Laredo	50	5734	16.4	40.5	51.9	72.0
Laredo	60	6034	17.2	34.8	45.4	77.1
Pioneer	40	6065	16.1	39.5	51.3	72.6
Pioneer	50	5552	17.2	38.3	50.5	75.1
Pioneer	60	5342	18.5	38.1	51.2	76.2
Tyrone	40	6576	15.8	40.4	40.4	74.0
Tyrone	50	6700	14.3	43.6	55.5	70.2
Tyrone	60	8057	13.7	45.8	57.9	68.5

Planted: 5/11/01
 Soil: Houston Clay
 Fertilizer: P & K according to soil test in April
 Herbicide: None

SEED SOURCES

Annual Ryegrass

01-Oretar	OregroSeed	Italian B4432	AgResearch	Rio	Pro Seeds
Abundant	DFL-Jenks	Jackson	Wax Seed	Rustmaster	DLF-Jenks
BB-Mex1	Barenburg	Jivet	DLF-Jenks	SCH-5	Oregro Seed
Big Daddy	Southern States	Jumbo	Smith Seed	Stampede	Pro Seeds
Bridgadier D	East Texas Seed	King	Lewis Seed	Tam 90	LR Nelson
EdArg	Smith Seed	Lonestar	Grassland Oregon	TxR2000-2	LR Nelson
FL10K2001	University of Florida	ME94	Wax Seed	TxR2001-10	LR Nelson
FLX2001new1	University of Florida	Marshall	Wax Seed	TxR2001-8	LR Nelson
FLine2001	University of Florida	Passerel Plus	Pennington	WMN97	Wax Seed
FLx2001new	University of Florida	P-1	Planview	Winterstar	Ampac Seed
Feast II	Ampac Seed	PrineTetra	East Texas Seed		
Italian B001	AgResearch	Ribeye	Barenburg		

Tall Fescue

AGRFA 103	AgResearch	Ga 003 542	University of Georgia	Kentucky 31	University of Georgia
AGRFA 110	AgResearch	GA 5 FI	University of Georgia	Q 4508	Wrightson Research
Barcel	Barenburg	Ga 5 Max Q	Pennington Seed/ University of Georgia	Quincy	University of Florida/ Willamette Valley Plant Breeders
BarFa1004	Barenburg	Hoedown	Jenks Seed Connections	R 4663	Wrightson Research
Bronson	Ampac Seed	Jesup Max Q	Pennington Seed/ University of Georgia	Stag	ProSeeds Marketing
CAS EA 79	Cascade International	Jesup FI	University of Georgia	WVPB 97-C-1	Willamette Valley Plant Breeders
Ga 001 542	University of Georgia			WVPB 99KSM	Willamette Valley Plant Breeders
Ga 002 542	University of Georgia				

Orchardgrass

Quantum Cascade International Seed Co.

Prairie Brome

AGR MW 101	AgResearch	G. Matua	AgResearch	Mutua	Commercial Seed Trade
D5633	Wrightson Research	Lupreme	Barenburg	Prairie0002	AgResearch
Gala	Barenburg	M 5632	Wrightson Research	Stocker	Barenburg

Reed Canarygrass

Agr PA 101 AgResearch

Seeded Bermudagrass

Common-S	Seeds West	Pasto Rico	KF Seeds	Sungrazer	KF Seeds
Common-K	KF Seeds	Texas Tough	East Texas Seed Co.	Cheyene	Pennington Seeds
Giant	Seeds West	Gaucha	Cebeco International Seeds	DLF-Beri	DLF-Jenks
Tierra Verde	Seeds West				

Sprigged Bermudagrass

(All plants are propagated by the MSU Department of Plant and Soil Sciences. Some are released varieties; others are ecotypes or "sports" collected by individuals.)

Alicia	Mr. Greer – Edna Texas	Lancaster	Mr. Lancaster – Rienzi, Mississippi	Sumrall 007	Mr. Sumrall – Monticello, Mississippi
BY 101	Mr. Pruitt – Eupora, Mississippi	Lott	Mr. Lott – Holcomb, Mississippi	Tanberg	Mr. Tanberg – Texas
Coastal	USDA – Tifton, Georgia	McDonald	Mr. McDonald – Carthage, Mississippi	Tifton 44	USDA – Tifton, Georgia
Common	Commercial Seed	Murphy	Mr. Murphy – Carthage, Mississippi	Tifton 85	USDA – Tifton, Georgia
Dixie I, Dixie II	Mr. McDonald – Carthage, Mississippi	Poplarville	MAFES South Mississippi Branch	Tifton 78 WH	MAFES/USDA – Tifton, Georgia
Grazer	USDA – Tifton, Georgia, and LSU	Russell	Auburn University	Tifton 78	USDA – Tifton, Georgia
Hardie	Oklahoma			World Feeder	Oklahoma

Bahiagrass

Pensacola Commercial Seed **Tifton 9** Pennington

Dallisgrass

Dallisgrass USDA - College Station, Texas

Eastern Gamagrass

Selections USDA - Coffeetown Plant Material Center

Soybeans

Soybeans Commercial Seed

Mississippi State UNIVERSITY



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