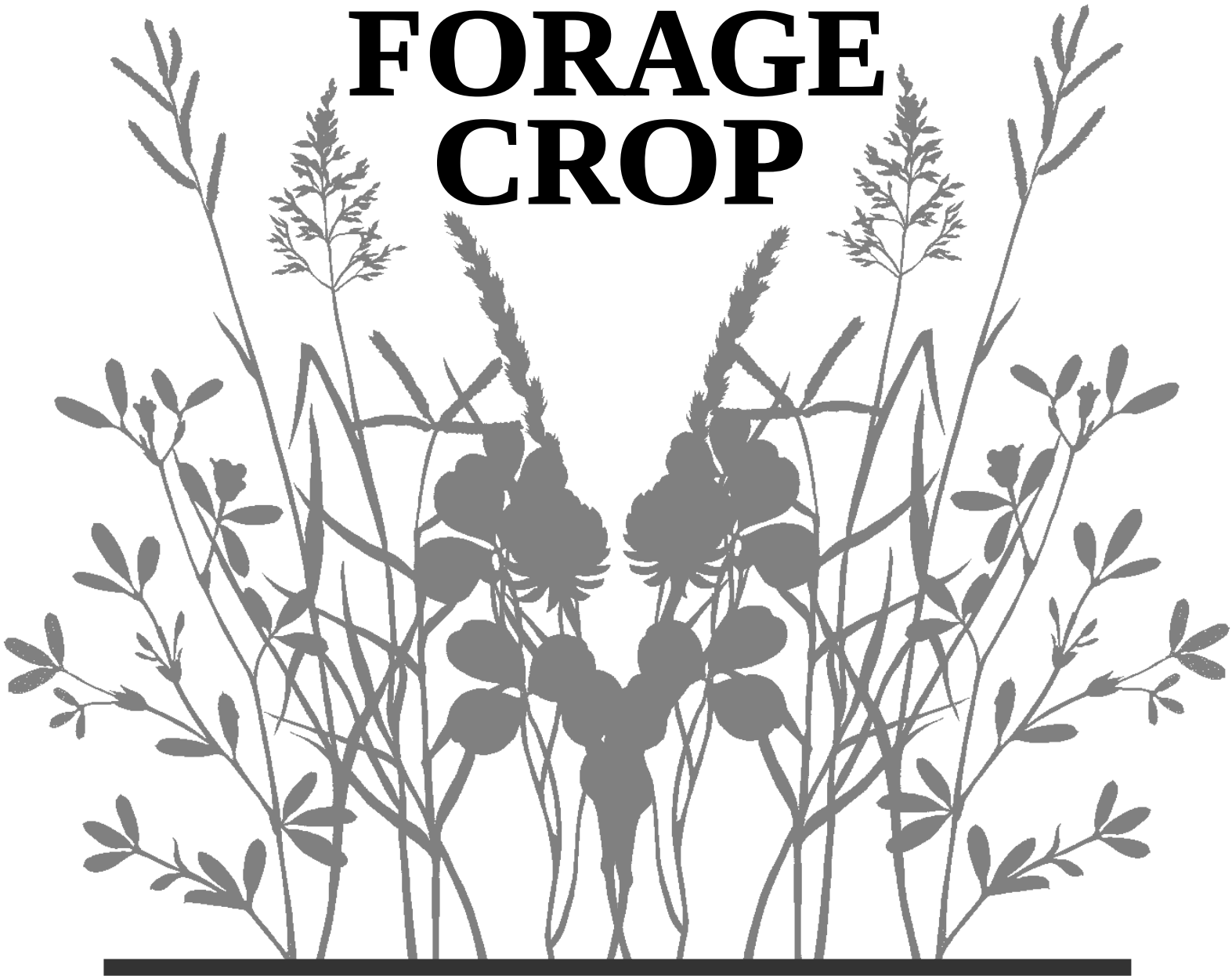
Information Bulletin 369 August 2000

Mississippi FORAGE CROP



VARIETY TRIALS 2000

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Mississippi Forage Crop Variety Trials, 2000

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This Mississippi Agricultural and Forestry Experiment Station Information Bulletin is a summary of forage research conducted at locations shown on the fourth page and is intended for the use of colleagues, cooperators, and sponsors. The interpretation of data presented herein may change after additional experimentation. Information included herein is not to be construed either as a recommendation for use or as an endorsement of a specific product by Mississippi State University or the Mississippi Agricultural and Forestry Experiment Station.

This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station. Joint sponsorship by the organizations listed on page 12 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 12.

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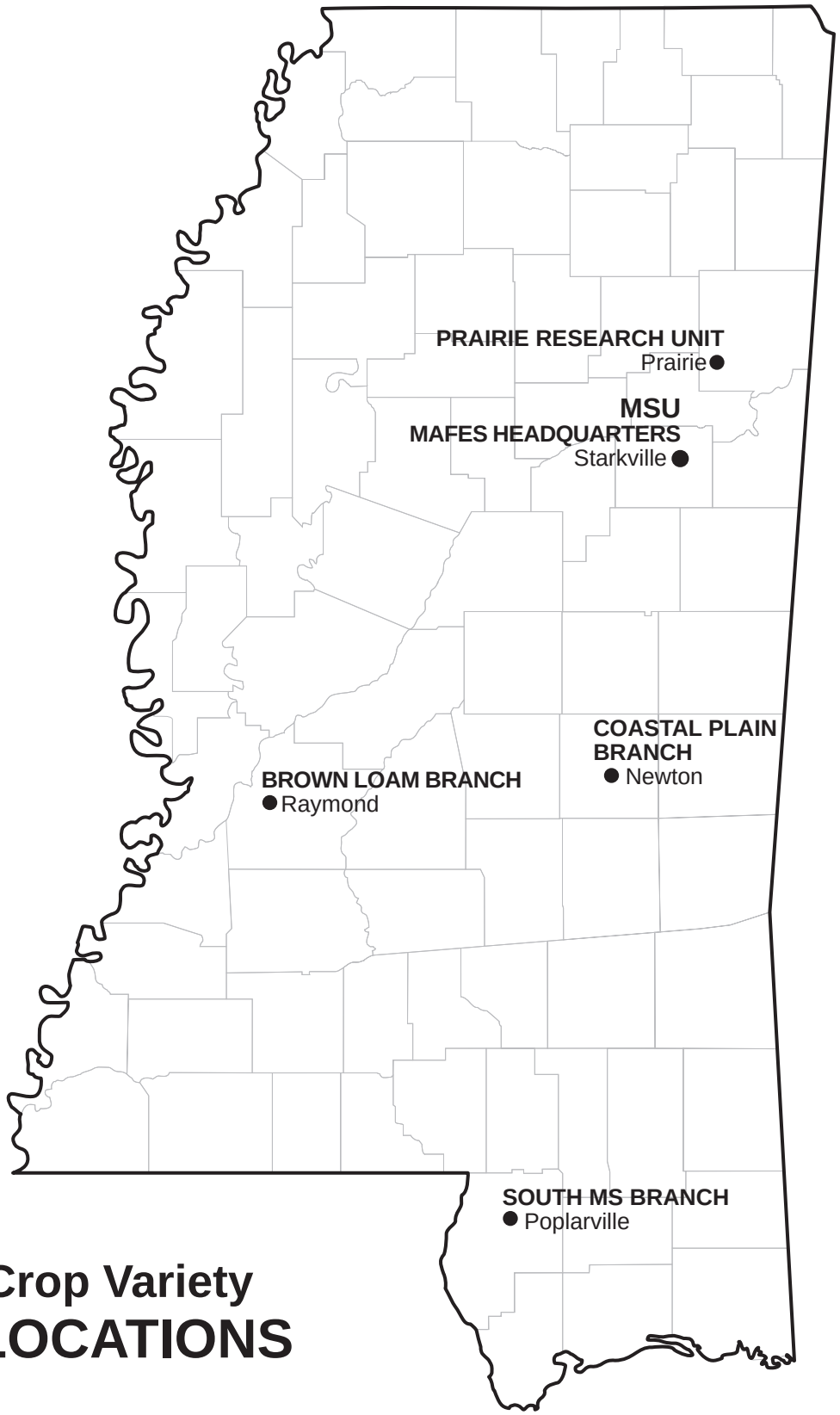

Forage Crop Variety
TEST LOCATIONS

Mississippi Forage Crop Variety Trials, 2000

Introduction

New, improved, and standard varieties of forage crops are evaluated in MAFES small-plot trials each year. Seeds obtained from commercial seed companies and state universities are tested at several 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 1999-00 on the performance of annual ryegrass, cool-season perennial grasses, and bermudagrass. A randomized complete block design with three to four replications, depending on location, was used. These data were analyzed within locations and within harvest dates. The number of harvests during the season varied by location because of different planting dates and growing conditions.

Performance of Ryegrass

Thirty-two ryegrass varieties were planted at four locations. Six additional varieties were received late and planted at Poplarville and Prairie. At **Prairie**, the test was harvested four times, and the average total yield of all varieties was 4,938 pounds per acre. The highest yielding variety was an experimental variety from Florida, FLX 1998 (SII)LR, with a yield of 5,683 pounds per acre. There were 20 other varieties producing yields not significantly different from the highest yielding variety (Table 1). At **Newton,** the test was harvested three times with an average total yield of 5,346 pounds per acre. The highest yielding variety was Marshall with a total dry matter yield of 6,065 pounds per acre. There were 12 other varieties producing yields not significantly different from the highest yielding variety (Table 2). The highest 4-year average yields were produced by Marshall (6,449), Rio (6,193), Jackson (5,924), and TAM 90 (5,873) (Table 3). The test at **Raymond** was harvested four times due to a relatively dry fall and winter. Total yields were less than normal, and there were no significant differences among the varieties evaluated in 1999-2000 (Table 4). The highest 4-year average yields were produced by Rustmaster (7,378), TAM 90 (7,326), and Marshall (7,234) (Table 5). The test at **Poplarville** was harvested four times and had an average yield of 6,191 pounds per acre (Table 6). The highest yield was produced by Domino with 7,212 pounds per acre. Four other varieties produced yields not significantly different from the highest yielding variety.

Table 1. Dry matter yield of ryegrass varieties, Prairie Research Unit, Prairie, MS, 2000.

Variety	Harvest Dates				Total
	2/23/00	3/10/00	4/7/00	5/4/00	Yield
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Abundant	849	924	1339	1636	4748
Andy	1579	1063	961	1626	5248
Avance	1321	870	1133	1499	4824
BAR 9 LOU	1149	1004	1348	1598	5100
BAR 9 TAM	1163	933	1044	1671	4812
Bestfor II	1235	845	1114	1804	4998
Big Daddy	1122	827	1154	1933	5037
Blizzard	1403	978	956	1408	4747
Dalita	1109	962	1121	1619	4812
Dominio	794	1027	1103	1684	4609
FL 1995 X 4 NLS	1231	920	1086	1582	4821
Florina	1209	1010	1135	1808	5164
FLX 1995 (GXS) MR	1166	1172	1006	1782	5127
FLX 1998 (SII) LR	1347	1035	1449	1850	5683
FLX 1999 (GA) LR	1095	966	1100	1666	4828
FLX 98 N 4 XLR	1128	953	1028	1843	4953
Gulf	1246	1104	1184	1576	5111
Hercules	1267	864	995	1806	4932
Hurricane	1018	894	1191	1827	4931
Jackson	1200	896	1204	1643	5033
Jumbo	903	864	1176	1764	4707
King	1513	1107	1254	1702	5576
Major	992	889	846	1653	4380
Marshall	856	855	1553	1878	5144
ME 94	945	965	1425	1953	5289
Polly	595	841	1161	1789	4387
Ribeye	1252	999	1103	1493	4848
Rio	1597	1063	961	1626	5248
Rustmaster	1347	919	1255	1514	5035
Sirloin	992	935	1152	1645	4724
Stampede	1362	992	1074	1675	5104
TAM 90	964	881	1296	1671	4812
Tetragold	1150	916	1340	1596	5003
TXR2000	886	940	1225	1761	4813
TXR2000-T1	646	872	1400	1830	4749
Typhoon	966	969	1119	1926	4981
WVPB-AR-99-7	794	837	1226	1824	4682
Zorro	1020	978	1457	1659	5115
Mean	1116	949	1176	1706	4950
LSD (0.05)	753	290	297	278	831
CV%	48.7	21.9	18	11.6	12.0

Planting date: 10/25/99
Fertilization: 2/11/00 - 60-0-0 2/23/00 - 30-0-0 3/10/00 - 30-0-0 4/7/00 - 30-0-0
Soil type: Houston clay

Table 2. Dry matter yield of ryegrass varieties, Coastal Plain Branch, Newton, MS, 1999-00.

Variety	Harvest Dates			Total
	1/21/00	3/14/00	4/25/00	Yield
	lb/A	*lb/A*	*lb/A*	*lb/A*
Abundant	1573	1607	2110	5290
Andy	1141	1385	1911	4436
Avance	1114	1403	2298	4815
BAR 9 LOU	1659	1822	2266	5747
BAR 9 TAM	1677	1766	2163	5606
Big Daddy	1626	1542	1997	5165
Dalita	1722	1530	2104	5356
Domino	1024	1055	2559	4638
FL 1995 X 4 NLS	1488	1406	2073	4966
Florina	1440	1919	2465	5824
FLX 1998 (SII) LR	1170	1517	2551	5237
FLX 1999 (GA) LR	1435	1623	2439	5496
Gulf	1908	1401	2143	5452
Hercules	1237	1392	2194	4824
Jackson	1160	1714	2274	5148
Jumbo	1415	1557	2361	5333
King	1671	2036	2330	6037
Major	1238	1739	1931	4908
Marshall	1320	2132	2613	6065
ME 94	1506	1802	2314	5622
Polly	1329	1531	2560	5420
Ribeye	1558	1626	2260	5440
Rio	1530	1478	2532	5542
Rustmaster	1608	1756	2300	5663
Sirloin	1814	1623	2196	5633
Stampede	1341	1652	2633	5625
TAM 90	1453	1837	2578	5868
Tertragold	1625	1593	2106	5324
TXR 2000-T1	1369	1952	2113	5433
TXR 2000	1278	1924	2079	5281
WVPB-AR-99-7	1252	1838	2488	5578
Zorro	729	1487	2548	4765
Mean	1419	1645	2297	5361
LSD(0.05)	377	366	375	542
CV%	16	14	10	6

Planting date: 9/28/99
Seeding rate: 35 lb
Fertilization: 1/7/99 - 65-65-65 12/16/99 - 68-0-0 3/24/00 - 68-0-0
Soil type: Prentiss fine sandy loam

Table 3. Dry matter yield of ryegrass varieties, Coastal Plain Branch, Newton, MS, 1996-00.

Variety	1996-97	1997-98	1998-99	1999-00	Mean
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Gulf	6082	5733	5904	5452	5793
Jackson	7168	5409	5969	5148	5924
Marshall	7022	6054	6654	6065	6449
Rio	6595	6123	6512	5542	6193
Rustmaster	6079	5824	5801	5663	5842
TAM 90	5727	5879	6018	5868	5873
Mean	6446	5837	6143	5623	6012

Table 4. Dry matter yield of ryegrass varieties, Brown Loam Branch, Raymond, MS, 1999-00.

Variety	Harvest Dates				Total
	12/16/99	2/3/00	2/17/00	3/30/00	Yield
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Abundant	869	1018	875	1275	4037
Andy	995	863	1086	1504	4448
Avance	789	1115	1138	1407	4448
BAR 9 LOU	1063	1115	1212	1509	4900
BAR 9 TAM	966	1189	955	1441	4551
Big Daddy	1012	1235	1166	1549	4963
Dalita	995	1058	898	1384	4334
Domino	760	983	989	1801	4534
FL 1995 x 4 NLS	852	961	943	1607	4362
FLX 1998 (SII) LR	858	1155	961	1464	4437
FLX 1999 (GA) LR	961	1006	915	1447	4328
Florlina	772	1235	1029	1555	4591
Gulf	921	1023	1001	1344	4288
Hercules	840	1001	995	1618	4454
Jackson	840	966	932	1595	4334
Jumbo	755	1309	1081	1458	4603
King	783	1235	1109	1572	4700
Major	995	1344	1149	1647	5134
Marshall	875	1063	995	1349	4282
ME 94	983	995	1069	1447	4494
Polly	823	1195	1149	1710	4877
Rio	846	1321	1081	1778	5026
Ribeye	840	1241	995	1452	4528
Rustmaster	840	1189	1006	1515	4551
Sirloin	989	1046	1121	1509	4665
Stampede	698	1001	909	1704	4311
TAM 90	726	1138	812	1670	4345
Tetragold	875	1001	966	1772	4614
TXR2000	932	921	949	1532	4334
TXR2000-T1	829	1195	1041	1532	4597
WVPB-AR-99-7	818	1121	1052	1401	4391
Zorro	1041	1115	966	1652	4774
Mean	879	1105	1017	1538	4539
LSD(0.05)	ns	ns	ns	ns	ns
CV%	26.0	24.9	16.9	18.2	11.8

Planting date: 9/30/99
Seeding rate: 35 lb/A
Fertilization: 9/30/99 - 60-0-0 2/4/00 - 30-0-0 3/7/00 - 30-0-0
Soil type: Loring silt loam

Table 5. Dry matter yield of ryegrass varieties, Brown Loam Branch, Raymond, MS, 1996-00.

Variety	1996-97	1997-98	1998-99	1999-00	Mean
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Gulf	8885	7180	4702	4288	6938
Jackson	9684	7784	4163	4334	7147
Marshall	9807	7112	4782	4282	7234
Rio	9130	6873	4080	5026	6277
Rustmaster	9726	7793	4659	4551	7378
TAM 90	9266	7686	4921	4345	7326
Mean	9417	7405	4551	4471	7050

Table 6. Dry matter yield of ryegrass varieties, South Mississippi Branch, Poplarville, MS, 1999-00.

Variety	Harvest Dates				Total
	1/18/00	2/18/00	3/21/00	4/18/00	Yield
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Abundant	1892	1023	1654	1452	6022
Andy	1474	1023	1868	1918	6283
Avance	1596	1137	1797	2164	6694
BAR 9 LOU	2050	1044	1720	1431	6245
BAR 9 TAM	2336	940	1815	1199	6289
Bestfor II	1658	1033	1886	1946	6523
Big Daddy	2091	1085	1529	1607	6313
Blizzard	1851	1116	1767	1452	6187
Dalita	1984	1023	1678	1347	6031
Domino	2142	1147	2005	1918	7212
FL 1995 X 4 NLS	1867	1126	1672	1403	6068
Florlina	1923	1002	1773	1248	5946
FLX 1995 (GXS) MR	2030	971	1702	1311	6014
FLX 1998 (SII) LR	1673	982	1720	1544	5918
FLX 1999 (GA) LR	1913	1044	1547	1551	6054
FLX 98 N 4 XLR	2035	1230	1684	1579	6528
Gulf	2106	982	1565	1347	5999
Hercules	1647	1147	1601	1777	6171
Hurricane	1734	992	1743	1537	6006
Jackson	1816	1013	1743	1459	6031
Jumbo	2004	1168	1601	1600	6373
King	1943	1023	1785	1445	6196
Major	1790	1209	1779	1191	5970
Marshall	1846	1044	1708	1375	5972
ME 94	1938	1054	1761	1459	6213
Polly	2122	1219	1618	1664	6623
Ribeye	2244	920	1392	1537	6093
Rio	1749	1023	1922	1502	6196
Rustmaster	2020	1033	1779	1191	6023
Sirloin	2071	1023	1601	1325	6020
Stampede	1867	1013	1720	1424	6023
TAM 90	1964	1033	1624	1403	6024
Tetragold	1739	1085	1659	1664	6147
TXR2000	1601	1033	1749	1227	5611
TXR2000-T1	1719	1002	1630	1389	5740
Typhoon	2111	889	1845	1206	6050
WVPB-AR-99-7	2025	1188	1702	1763	6677
Zorro	1515	1064	2124	1911	6614
Mean	1897	1055	1723	1512	6187
LSD(0.05)	520	170	330	390	649
CV%	16.8	9.9	11.7	15.9	6.4

Planting date: 10/14/1999
Fertilization: 11/1/99 - 100-0-0 2/18/00 - 64-0-0 3/22/00 - 34-0-0
Soil type: Ruston fine sandy loam

PERFORMANCE OF COOL-SEASON GRASSES

In 1996, a study was established to evaluate selected varieties of four species of cool-season perennial grasses. The cool-season species to be evaluated were fescue, orchardgrass, tall oat grass, and prairie bromegrass. Fescue is considered to be the best most adaptive cool-season perennial grass for Mississippi, while earlier varieties of orchardgrass have not been persistent under Mississippi conditions. Little is known about tall oat grass. Prairie brome is being promoted as being a perennial, but under Mississippi environmental conditions, it must be treated as a reseeding annual.

At **Newton**, the test was harvested three times, and the highest yield was produced by Georgia 5 tall fescue (Table 7). Five other varieties produced yields not significantly different from the highest yielding variety. The highest 4-year average yield (3,581 pounds per acre) was produced by PRO-B6 tall fescue. The prairie bromegrass and tall oat grass did not survive after 2 years.

An experiment to evaluate cool-season grasses established at **Mississippi State** included eight perennial ryegrass varieties planted in 1998. These perennial ryegrasses were evaluated for both persistence and yield compared with annual ryegrass and other cool-season perennial grasses. Second year survival was best with Yatsyn and Lafayette (88%). The annual ryegrass varieties were allowed to reseed. The test was harvested four times, and the highest yield (5,722 pounds per acre) was produced by Gulf annual ryegrass (Table 8). Yatsyn was the perennial ryegrass with the highest yield (4,819 pounds per acre).

Table 7. Dry matter yield of cool-season perennial grasses, Coastal Plain Branch, Newton, MS, 2000.

Variety	Harvest Dates			Total	4-Year
	3/21/00	4/25/00	5/10/00	Yield	Average
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Tall Fescue					
Bull	1613	2093	533	4239	3188
CAFA 401	1517	1959	643	4119	3201
Georgia 5	1396	2363	559	4317	3466
Jessup Minus (EF)	1340	2196	598	4135	3243
Kentucky 31	1389	1970	512	3872	3072
PRO-B6	1556	1934	547	4038	3581
WVPB TF B-3	1637	1768	586	3991	3227
WVPB TF B-5	1244	1268	485	2996	2392
WVPB TF B-16	1700	1775	664	4139	3603
Orchardgrass					
MoTol 85II	1219	1074	619	2912	2648
9007238	1340	1036	528	2903	2550
Mean	1450	1767	570	3787	3106
LSD (0.05)	261	396	273	583	
CV%	10	13	28	9	

Seeding rate: Fescue - 20 lb/A Orchardgrass - 15 lb/A
Bromegrass - 25 lb/A
Planting date: 10/8/96
Fertilization: 10/20/97 - 65-65-65 12/3/97 - 68-0-0 2/20/98 - 68-0-0 3/25/98 - 34-0-0
Soil type: Prentiss fine sandy loam

Table 8. Dry matter yield of cool-season annual and perennial grasses, Mississippi State, MS, 1999-00.

Variety	Stand	Harvest Dates			Total
	4/7/00	3/6/00	4/7/00	5/15/00	Yield
	%	lb/A	lb/A	lb/A	lb/A
Annual Ryegrass[1]					
Barmultra	11	0 (NH)	403	430	833
Barverdi	36	0 (NH)	969	1649	2618
Gulf	79	1210	2438	2074	5722
Jackson	89	1048	1622	2384	5053
Marshall	68	440	1918	2411	4768
Perennial Ryegrass					
BG-14	64	112	1320	1340	2773
BG-34	55	113	1116	1649	2879
Grasslands	85	1478	1555	1404	4426
Lafayette	88	520	1579	1640	3623
Lane	78	209	1142	1992	3343
Moy	75	366	1442	1797	3605
TetraPlus 34	73	62	1025	1430	2517
Yatsyn	88	955	2195	1669	4819
GD3251	54	108	1293	1282	2684
Bromegrass					
Gala	55	165	967	1025	2156
Stocker	99	1474	2147	1772	5393
Orchardgrass					
Quantum	92	1946	1664	1842	5648
Mean	70	627	1458	1368	3717
LSD(0.05)	23	472	694	735	1322
CV%	23.2	56.2	32.8	30.9	24.5

Planting date: 9/10/98
Fertilization: 10/11/99 - 400 lb 15-5-10 3/8/00 - 150 lb 34-0-0 4/8/00 - 150 lb 34-0-0
Soil type: Marietta Loam
Herbicide: 12/14/99 - Weedmaster at 1 pt/A

[1]Annual ryegrasses volunteered in 1999.

PERFORMANCE OF WARM-SEASON GRASSES

A study was initiated at the Prairie Research Unit to evaluate five species of native warm-season perennial grasses. Highest yield was produced by Alamo switchgrass at 4,194 pounds per acre (Table 9). Kanlow switchgrass and Eastern gamagrass produced yields of 3,662 and 3,264 pounds per acre, respectively, which were not significantly different from the highest yield.

Table 9. Dry matter yield of warm-season perennial grasses, Prairie Research Unit, Prairie, MS, 1999.

Variety	Harvest Date 6/30/99	2-Year Average
	lb/A	*lb/A*
Switchgrass		
Alamo	4194	5274
Cave-in-Rock	2805	3482
Kanlow	3662	4603
Eastern Gamagrass	3264	3600
Indiangrass		
514678	2599	3215
Lometa	3089	3642
Big Bluestem		
Kaw	2815	3525
PMC	2697	3070
Little Blue Stem	2171	2708
Mean	3033	3680
LSD(0.05)	1042	
CV%	24	

Planting date: 5/12/95
Fertilization: 60-0-0
Soil type: Houston clay

Performance of Bermudagrass

Several of the bermudagrasses evaluated are experimental lines and may not be available for distribution at this time. Some of these are local ecotypes and others may be "sports" from established varieties. Murphy was selected in Leake County, Mississippi. Poplarville is a selection by Dr. Carl Hovermale at the South Mississippi Branch Experiment Station. Lott is a selection made by Harry Lott of Grenada County. These lines were included in the test because they are potential improvements over currently available varieties.

The other bermudagrasses are established varieties and are generally available. Coastal is the oldest of the improved bermudagrasses. It was developed by Dr. Glenn Burton at Tifton, Georgia. He also developed and released Tifton 44, Tifton 78, and Tifton 85. He developed Grazer, which was released jointly with Louisiana State University. Alicia was selected from an introduction growing in Edna, Texas. Lancaster was selected from a field of Coastal in Alcorn County, Mississippi. Russell, named for Russell County, Alabama, where it was found in 1970, was released by Auburn University and Louisiana State University in 1995. Sumrall 007 was selected by Gerald Sumrall of Monticello in Lawrence County, Mississippi.

At **Prairie**, Tifton 44 was the highest yielding of the 12 varieties evaluated, with a yield of 6,084 pounds per acre compared with 4,269 for the average of all varieties (Table 10). At **Raymond**, the same varieties were compared to Pensacola and Tifton 9 bahiagrass, and the highest yield (10,362 pounds per acre) was produced by Alicia, which was not significantly different from the yields produced by Tifton 44, Tifton 78, Tifton 78WH, Tifton 85, and Coastal bermudagrass (Table 11). The highest 5-year average yield (8,727 pounds per acre) was produced by Tifton 85. At **Newton**, the highest yield (7,230 pounds per acre) was produced by Tifton 85 but was not significantly different from Tifton 78 WH, Tifton 78, Tifton 44, Coastal, and Sumrall 007 bermudagrass (Table 12). The highest 5-year average (8,633 pounds per acre) was produced by Tifton 78. At **Mississippi State**, in a comparison of six varieties planted in 1996, the highest yield was produced by Tifton 85 (Table 13). In a test of five seeded bermudagrass varieties planted in 1997, the highest yields were produced by Common and CD90160 (Table 14).

Table 10. Dry matter yield of bermudagrass varieties, Prairie Research Unit, Prairie, MS, 1999.

Variety	Harvest Dates				Total
	5/26/99	6/22/99	7/16/99	8/16/99	Yield
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Coastal	977	1882	945	1438	5242
Grazer	445	990	955	1069	3459
Hardie	529	903	1207	1032	3671
Lancaster	115	699	987	1253	3054
Murphy	880	1569	868	1456	4773
Poplarville	117	1527	769	1119	3532
Prairie I	553	1048	816	1076	3493
Prairie II	751	1240	1030	1395	4416
Prairie III	400	1230	888	1275	3793
Russell	861	1604	756	1359	4580
Sumrall	741	1534	994	1437	4706
Tifton 44	1486	1759	1321	1518	6084
Tifton 85	854	1457	1166	1207	4684
Mean	670	334	978	1279	4269
LSD(0.05)	409	1342	170	197	747
CV%	42.5	17.3	12.1	10.7	12.2

Established: 5/18/95
Fertilization: 150-0-0 split application
Soil type: Houston clay

Table 11. Dry matter yield of bermudagrass varieties, Brown Loam Branch, Raymond, MS, 1999.

Variety	Harvest Dates				Total	5-Year
	5/25/99	6/30/99	8/12/99	10/6/99	Yield	Average
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Tifton 85	2865	3407	1435	1052	8758	8727
Tifton 78	3309	3420	1554	1163	9446	8468
Tifton 78 WH	3108	2842	1623	1073	8647	7946
Tifton 44	2902	3588	1512	1017	9019	7334
Coastal	3673	3302	1560	752	9287	7792
Grazer	1651	1825	1031	334	4842	4607
Common	2331	1769	1003	641	5744	5914
Murphy I	2952	2661	1087	732	7432	6206
Alicia	3869	3462	1839	1191	10362	8440
Landcaster	1370	2104	1108	550	5131	3650
Hardie	2410	2410	989	550	6360	5003
Poplarville	2364	2703	1170	808	7046	5880
Pensacola Bahia	1230	1219	1630	1059	5138	6958
Tifton 9 Bahia	2381	1958	1435	669	6442	7708
Mean	2601	2619	1355	828	7404	6760
LSD(0.05)	787	958	NS	428	1726	
CV%	21.2	25.6	36.6	36.1	16.3	

Planting date: 4/94
Fertilization: 4/29/99 - 80-0-0
Soil type: Loring silt loam

Table 12. Dry matter yield of bermudagrass varieties, Coastal Plain Branch, Newton, MS 1999.

Variety	Harvest Dates			Total	5-Year
	6/17/99	7/20/99	9/2/99	Yield	Average
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Alicia	1765	3158	1407	6330	8054
Coastal	1216	3363	1568	6147	7807
Common	871	2559	827	4257	5324
Grazer	244	2198	592	3034	4367
Hardie	907	2381	410	3698	5407
Landcaster	205	2214	622	3041	4183
Lott	1456	2642	1612	5709	6235[1]
Murphy	1073	3070	959	5102	7025
Poplarville	403	2339	585	3331	5220
Sumrall 007	2027	3589	1580	7196	7829[1]
Tifton 85	1810	3609	1811	7230	8243
Tifton 78 WH	1755	3228	1940	6923	8521
Tifton 78	1743	2979	1874	6595	8633
Tifton 44	1272	3197	1852	6321	8522
Mean	1196	2895	1260	5351	6812
LSD(0.05)	361	332	610	912	—
CV%	21	8	34	12	—

Planting date: 4/19/94
Fertilization: 4/2/98 - 1 ton lime/A 4/13/99 - 65-65-65 6/17/99 - 34-0-0 7/20/99 - 68-0-0
Soil type: Prentiss fine sandy loam

[1]Because Lott and Sumrall 007 were not planted until 1996, this is a 3-year average.

Table 13. Dry matter yield of experimental bermudagrass varieties, Mississippi State, MS, 1999.

Variety/Line	Harvest Dates				Total
	5/20/99	7/2/99	7/26/99	10/20/99	Yield
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Coastal	2025	2949	3184	2720	10877
Lott	2035	2240	3369	2260	9902
Poplarville	1231	2764	2429	2033	8458
Sumrall 007	2009	2667	3427	2425	10528
Tifton 44	1658	2950	3172	2380	10160
Tifton 85	2145	3310	2899	2844	11198
Mean	1851	2813	3080	2444	10187
LSD(0.05)	523	463	NS	486	2060
CV%	19	11	26	13	13

Planted: 6/4/96
Fertilizer: 4/21/99 - 500 lb/A 15-5-10 Rainbow®; 6/2/99 - 400 lb/A 15-5-10 Rainbow®; 7/2/99 - 400 lb/A 15-5-10 Rainbow®; 7/28/99 - 300 lb/A 13-13-13 Super Rainbow®
Herbicide: 4/21/99 - 0.2 oz/A Ally + surfactant
Soil type: Marietta Loam

Table 14. Dry matter yield of seeded forage bermudagrass, Mississippi State, MS, 1999.

Variety/Line	Harvest Dates				Total	2-Year
	5/20/99	7/2/99	7/27/99	10/20/99	Yield	Average
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
CD90160	2051	2438	2218	1940	8647	6962
Common	1808	2108	2373	1646	7935	6831
ED-5	1155	2154	1858	1240	6407	5469
LD-3	1374	2476	1810	1225	6886	5993
Tierra Verde	2017	1971	2458	1878	8325	5762
Mean	1681	2229	2144	1586	7640	6203
LSD(0.05)	424	617	333	288	1229	1256
CV%	16.4	18.0	10.1	11.8	10.4	13.1

Established: 6/13/97
Fertilizer: 4/21/99 - 500 lb/A 15-5-10 Rainbow®; 6/2/99 - 400 lb/A 15-5-10 Rainbow®; 7/2/99 - 400 lb/A 15-5-10 Rainbow®; 7/28/99 - 300 lb/A 13-13-13 Super Rainbow®
Herbicide: 4/21/99 - 0.2 oz/A Ally + surfactant
Soil type: Marietta Loam

Seed Sources

Annual Ryegrass

Abundant	Jenks Seed Connection
Andy	DLF Trifolium, Inc
Avance	DLF Trifolium, Inc
BAR 9 LOU	Barenbrug
BAR 9 TAM	Barenbrug
Big Daddy	Southern States
Blizard	Plainview Seed
Bestfor II	Plainview Seed
Dalita	DLF Trifolium, Inc.
Domino	DLF Trifolium, Inc
FL 1995 X 4 NLS	Cebeco International
Florina	Proseeds Marketing, Inc.
FLX 1995 (GXS) MR	Advanda Seed Pacific
FLX 1998 (SII) LR	University of Florida
FLX 1999 (GA) LR	University of Florida
FLX 98 N 4 X LR	Advanda Seed Pacific
Gulf	Mid Valley Ag. Products
Hercules	Barenbrug
Hurricane	Plainview Seed
Jackson	Wax Company
Jumbo	University of Florida
King	Lewis Seed Company
Major	Cebeco International
Marshall	Wax Company
ME 94	Wax Company
Polly	DLF Trifolium, Inc.
Ribeye	Barenbrug
Rio	Pro Seed Marketing Inc.
Rustmaster	DLF Trifolium, Inc.
Sirloin	Barenbrug
Stampede	Pro Seed Marketing Inc.
TAM 90	Texas A & M
Tetragold	Barenbrug
TXR 2000	Texas A & M
TXR 2000-T1	Texas A & M
Typhoon	Plainview Seed
WVPB-AR-99-L	Willamette Valley Plant Breeders
Zorro	DLF Trifolium, Inc.

Perennial Ryegrass

BG-14	Barenbrug
BG-34	Barenbrug
Grasslands	Barenbrug
Layayette	Cascade International Seed Co.
Lane	Cascade International Seed Co.
Moy	Barenbrug
Tetra	Barenbrug
Yatsyn	Barenbrug
GD3251	Cascade International Seed Co.

Tall Fescue

Bull	DLF Trifolium
CAFA 401	Jenks Seed Connection
Georgia 5	University of Georgia
Jessup (EF)	Pennington Seed Company
Kentucky 31	International Seeds, Inc.
PRO-B6	Pro Seeds Marketing
WVPB TF B-3	Willamette Valley Plant Breeders
WVPB TF B-5	Willamette Valley Plant Breeders
WVPB TF B-16	Willamette Valley Plant Breeders

Orchardgrass

MoTol 85II	International Seed Inc.
Quantum	Cascade International Seed Co.
9007238	Plant Material Center

Prairie Brome

Gala	Cascade International Seed Co.
Muta	Commercial Seed Trade
Stocker	Cascade International Seed Co.

Switchgrass

Alamo	USDA - Plant Material Center
Cave-in-Rock	USDA - Plant Material Center
Kanlow	USDA - Plant Material Center
Eastern Gamagrass	USDA - Plant Material Center

Indiangrass

514678	USDA - Plant Material Center
Lometa	USDA - Plant Material Center

Big Bluestem

Kaw	USDA - Plant Material Center
PMC	USDA - Plant Material Center
Little Blue Stem	USDA - Plant Material Center

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