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Mississippi Forage Crop Variety Trials, 1999

Information Bulletin 356 -- August 1999

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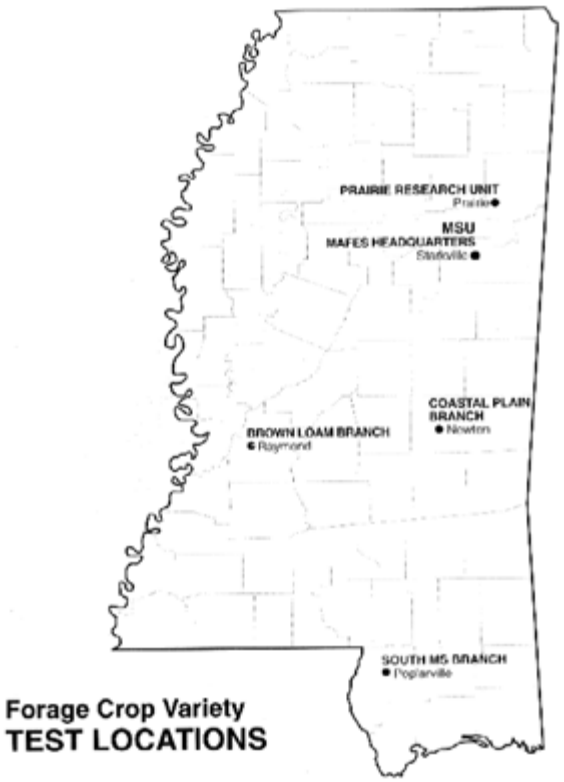
Contents

Notice to User

This Mississippi Agricultural and Forestry Experiment Station Information bulletin is a summary of forage research conducted at locations shown on the map and is intended for colleagues, cooperators, and sponsors. The interpretation of dat a 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 Agricultura l and Forestry Experiment Station.

This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station and USDA-ARS Forage Research Unit research program. Joint sponsorship by the organizations listed under seed sources is gratefully acknowledged.

Commercial and public varieties tested in this research project (trade names, experimental code names or numbers, etc.) and sources of seeds may be found under seed sources.



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 1998-99 on the performance of annual ryegrass, cool-season peren nial grasses, bermudagrass, and clovers. 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 vari ed by location because of different planting dates and growing conditions.

Performance of Ryegrass

Thirty-three ryegrass varieties were planted at three locations. At Newton, the test was harvested five times. The highest-yielding variety was Passerel with a total dry matter yield of 7,199 pounds per acre. Marshall, Rio, Stampede, and Typhoon produced yields that were not significantly different from the highest-producing variety (Table 1). The highest 4-year average yields were produced by Marshall (6,915), Rio (6,486), and Surrey (6,545)(Table 2).

Because of a relatively dry fall and winter, the test at Raymond was harvested only three times. February, April,

and May were extremely dry with about 6 inches of total rainfall. Total yields were less than normal, and there was no significant difference among the varieties evaluated in 1998-99 (Table 3). The highest 4-year average yields were produced by TAM 90 (7,429), Rust Master (7,332) and Marshall (7,236) (Table 4).

The test at Poplarville was harvested five times and had an average yield of 5,647 pounds per acre (Table 5). The highest yield was produced by an experimental variety from Florida, FLX 1998 (NEW) 4N LATE, with 6,944 pounds per ac re. Beef Builder, Big Daddy, FLX 1997 (G)4N, Hercules, Tetragold, and WVPB - AR-98-L produced yields that were not significantly different from the highest-yielding variety.

Performance of Cool-Season Perennial Grasses

A study was established in 1996 to evaluate selected varieties of four species of cool-season perennial grasses. Fescue is considered the best adapted cool-season perennial grass for Mississippi. Earlier varieties of orchard grass have not been persistent under Mississippi conditions. Little is known about tall oat grass. Prairie brome is being promoted as a perennial, but under Mississippi environmental conditions, it will respond as a reseeding annual.

The test at Prairie was harvested three times, and the highest yield was produced by Georgia 5 fescue, with a yield of 3,399 pounds per acre (Table 6). The yields produced by Kentucky 31 and WVPBTF B-3 were not significantly diffe rent from the highest-producing variety (Table 6).

At Newton, the test was harvested twice, and the highest yield was produced by Jessup Minus tall fescue (Table 7). Five other varieties produced yields that were not significantly different from the highest-yielding variety. The highest three-year average yield (3,626 pounds per acre) was produced by WVPB TF B-16 tall fescue. A new experiment to evaluate cool-season grasses established at Mississippi State included eight perennial ryegrass varieties. Perennial ryegrass varieties were included in this test to see how they would compare with annual ryegrass and other cool-season perennial grasses. The test was harvested four times and the highest yield (4,636 pounds per acre) was produced by Gulf annual ryegrass (Table 8). Two other annual ryegrasses, Jackson and Marshall, produced yields that were not significantly different from the highest-producing variety. The perennial ryegrass with the highest yield was Yatsyn with a yield of 3,543 pounds per acre.

Performance of Warm-Season Perennial 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 with 4,194 pounds per acre (Table 9). Kanlow switchgrass an d Eastern gammagrass produced yields of 3,662 and 3,264 pounds per acre, respectively, but these yields were not significantly different from the highest yield.

Performance of Clovers

Twelve white clovers were evaluated at Poplarville. The highest yield (2,030 pounds per acre) was produced by Canopy Ladino (Table 10). Four other varieties produced yields that were not significantly different from the highest-y ielding variety.

Twelve varieties of red clover were evaluated at Poplarville. The highest yield (3,050 pounds per acre) was produced by Cherokee (Table 11). Arlington and FLMR 7 produced yields that were not significantly different from the high est-yielding variety.

Four varieties of crimson, two varieties of berseem, and two arrowleaf varieties were evaluated at Poplarville. The highest yields were produced by the crimson varieties, with Dixie producing 3,674 pounds per acre (Table 12).

Performance of Bermudagrass

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

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

At Prairie, Tifton 44 was the highest yielding of the 12 varieties evaluated with a yield of 4,521 pounds per acre, compared with 3,468 for the average of all varieties (Table 13). The yields produced by Coastal and Tifton 85 wer e not significantly different from the highest-producing variety. At Raymond, Tifton 78 WH produced the highest yield (9,012 pounds per acre), which was not significantly different from the yields produced by Tifton 9, Pensacola, Tifton 44, Tifton 78, Coa stal, and Alicia (Table 14). The highest 4-year average yield (8,719 pounds per acre) was produced by Tifton 85.

At Newton, Tifton 85 produced the highest yield (9,580 pounds per acre), which was not significantly different from Tifton 78 WH, Tifton 78, Tifton 44, Coastal, and Alicia bermudagrass (Table 15). The highest 4-year average (9,14 2 pounds per acre) was produced by Tifton 78.

At Mississippi State, in a comparison of 11 varieties planted in 1993, Sumrall 007 produced the highest yield, which was not significantly different from the yield produced by Russell and McDonald (Table 16). In a test of six varieties planted in 1996, the highest yields were produced by Sumrall 007, Tifton 85 and Coastal (Table 17).

Seed Sources

Annual Ryegrass

Barmultra	Barenbrug	**Passerel Plus**	Pennington Seed, Inc.
Barverdi	Barenbrug	**Ribeye**	Barenbrug
Beef Builder	Forbes Seed and Grain, Inc.	**Rio**	Olsen-Fennell Seed, Inc.
Big Daddy	Smith Seed Services	**Rust Master**	DLF Trifolium, Inc.
Blizzard	Plainview Seed	**Sirloin**	Barenbrug
FL4N	International Seed	**Southern Star**	Forbes Seed and Grain, Inc.
FLX1997 (G) 4N	University of Florida	**Stampede**	Olsen-Fennell Seed, Inc.

FLX1998 (SII) LR	University of Florida	**Surrey**	University of Florida
FLX1997 (New) 2NLR	University of Florida	**TAM 90**	Texas A&M
FLX1998 (New) 4NLate	University of Florida	**Tetragold**	Barenbrug
Gulf (certified)	Mid Valley Ag. Products	**TXR 96-3**	Texas A&M
Hercules	Barenbrug	**TXR 97-3**	Texas A&M
Hurricane	Plainview Seed	**Typhoon**	Plainview Seed
Jackson	Wax Seed Company	**WVPB-AR-93-101**	Willamette Valley Plant Breeders
Marshall	Wax Seed Company	**WVPB-AR-98-L**	Willamette Valley Plant Breeders
ME-94	Wax Seed Company	**WVPB-AR-R-3**	Willamette Valley Plant Breeders
OFI-A94	Olsen-Fennell Seed, Inc.	**WVPB-F-11**	Willamette Valley Plant Breeders
Passerel	Pennington Seed, Inc.		

Perennial Ryegrass

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

Tall Fescue

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

Orchardgrass

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

Tall Oat Grass

564692	Plant Material Center

Prairie Brome

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

Clovers

All clovers were obtained from the USDA-ARS Regional Plant Introduction Station in Griffin, GA.

Table 1. Dry matter yield of ryegrass varieties, Coastal Plain Branch, Newton, MS, 1998-99.

Variety	Harvest Dates					Total
	11/30/98	1/28/99	3/2/99	4/16/99	5/19/99	
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Beef Builder	1321	933	1280	1308	741	5583
Big Daddy	1281	994	1334	1330	574	5512
Blizzard	1330	1060	1427	1298	671	5787
FL4N	1101	1062	1504	1167	455	5288
FLX1997 (G) 4N	1049	1136	1571	1252	957	5966
FLX1988 (SII) LR	1389	1262	1490	1384	815	6340
FLX1997 (New) 2NLR	1217	1256	1459	1045	796	5774
FLX1998 (New) 4NLate	1410	1181	1443	1047	861	5943
Gulf (Certified)	1235	983	1583	1514	588	5904
Hercules	1436	1122	1393	1125	736	5811
Hurricane	1594	1165	1481	1351	729	6319
Jackson	1448	1249	1700	863	709	5969
Marshall	1690	1317	1618	1271	758	6654
ME-94	1526	1212	1649	1258	672	6317
OFI-A94	1445	1080	1515	1457	727	6224
Passerel	1419	1388	1744	1697	952	7199
Passerel Plus	1255	1294	1759	1187	788	6284
Ribeye	917	1328	1714	1488	717	6163
Rio	1315	1014	1689	1330	1164	6512
Rust Master	1387	1023	1655	1250	487	5801
Sirloin	959	1225	1586	1213	804	5787
Southern Star	1435	1219	1647	1299	535	6134
Stampede	1052	1227	1834	1607	831	6550
Surrey	1485	1111	1524	1135	658	5914
TAM 90	1414	966	1601	1340	698	6018
Tetragold	1440	1191	1091	1264	732	5717
TXR 96-3	1285	942	1520	1524	709	5981
TXR 97-3	1174	1148	1637	1266	824	6049
Typhoon	1603	1211	1585	1373	876	6648
WVPB-AR-93-101	1364	1229	1714	1279	814	6400
WVPB-AR-98-L	924	1047	1622	1463	963	6019
WVPB-AR-R-3	1459	1091	1535	1392	716	6193
WVPB-F-11	1121	852	1260	1137	553	4923
Mean	1318	1137	1550	1300	746	6051
LSD (0.05)	232	234	273	478	280	760
CV%	11	13	11	23	23	8
Planting date: 10/22/98						
Fertilization: 10/24/98 - 68-0-60						

01/29/99 - 68-0-0

12/17/98 - 34-0-0

04/16/99 - 34-0-0

Table 2. Dry matter yield of ryegrass varieties, Coastal Plain Branch, Newton, MS, 1995-99.

Variety	1995-96	1996-97	1997-98	1998-99	Mean
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Gulf	5054	6082	5733	5904	5693
Jackson	6416	7168	5409	5969	6241
Marshall	7930	7022	6054	6654	6915
Rio	6714	6595	6123	6512	6486
Rust Master	6351	6079	5824	5801	6014
Surrey	6741	7341	6184	5914	6545
TAM 90	5909	5727	5879	6018	5883
Mean	6321	6573	5886	6110	6254

Table 3. Dry matter yield of ryegrass varieties, Brown Loam Branch Station, Raymond, MS, 1998-99.

Variety	Harvest Dates			Total
	12/15/98	2/26/99	4/14/99	
	lb/A	*lb/A*	*lb/A*	*lb/A*
Beef Builder	804	667	3957	5428
BigDaddy	769	669	3324	4762
Blizzard	1013	447	2931	4392
FL4N	1156	451	3299	4907
FLX1997 (G) 4N	893	486	3482	4861
FLX1998 (SII) LR	922	655	3154	4732
FLX1997 (New) 2NLR	823	633	3182	4638
FLX1998 (New) 4NLate	829	472	2982	4283
Gulf	1048	446	3209	4702
Hercules	921	621	3055	4598
Hurricane	935	532	2916	4383
Jackson	1066	369	2728	4163
Marshall	996	396	3390	4782
ME-94	1117	517	3518	5152
OFI-A94	1138	340	3199	4677
Prassell	1005	417	2863	4284
Prassell Plus	1144	520	3904	5567
Ribeye	970	651	3694	5314
Rio	1182	509	2390	4080
Rust Master	1037	365	3257	4659
Sirloin	1105	507	3425	5037
Southern Star	986	612	2753	4351
Stampede	1002	626	2657	4284
Surrey	966	360	3062	4387
TAM 90	1042	446	3433	4921
Tetragold	973	496	3086	4555
TRX96-3	909	366	3103	4372
TRX97-3	1151	438	3418	5006
Typhoon	1077	521	3081	4679
WVPB-AR-93-101	995	461	3220	4676
WVPB-AR-98-L	893	723	3458	5074
WVPB-AR-R-3	1076	429	3705	5209
WVPB-F-11	966	681	2970	4617

Mean	997	510	3206	4713
LSD (0.05)	NS	214	NS	NS
CV%	18	30	22	15
Planting date: 9/29/98				
Fertilization: 9/28/98 - 0-30-0	10/13/98 - 60-0-0	2/26/99 - 100-0-0		

Table 4. Dry matter yield of ryegrass varieties, Brown Loam Branch, Raymond, MS, 1995-99.

Variety	1995-96	1996-97	1997-98	1998-99	Mean
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Gulf	7175	8885	7180	4702	6986
Jackson	6195	9684	7784	4163	6957
Marshall	7243	9807	7112	4782	7236
Rio	7530	9130	6873	4080	6903
Rust Master	7150	9726	7793	4659	7332
Surrey	6605	9343	7604	4387	6985
TAM 90	7844	9266	7686	4921	7429
Mean	7178	9406	7433	4528	7118

Table 5. Dry matter yield of ryegrass varieties, South Mississippi Branch Station, Poplarville, MS, 1998-99.

Variety	Harvest Dates					Total
	11/30/98	12/15/98	2/10/99	3/8/99	4/8/99	
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Beef Builder	2187	1116	1058	1240	653	6254
Big Daddy	1884	1216	1061	1460	687	6308
Blizzard	1679	921	888	1095	712	5295
FL4N	1245	962	845	925	368	4346
FLX1997 (G) 4N	1821	1527	1469	1195	692	6703
FLX1998 (SII) LR	1746	1070	1101	1025	513	5455
FLX1997 (NEW) 2N LR	1884	1050	989	1170	836	5929
FLX1998 (NEW) 4N Late	2002	1402	1249	1369	936	6958
Gulf (Certified)	1439	938	1101	1203	767	5447
Hercules	2250	1406	1173	1427	687	6944
Hurricane	1387	1058	964	979	592	4980
Jackson	1636	1228	1021	1265	553	5703
Marshall	1710	1000	982	1066	558	5316
ME-94	1655	1128	1047	1178	702	5711
OFI-A94	1513	962	1054	1041	667	5238
Passerel	1774	1104	873	1083	383	5217
Passerel Plus	1655	1108	1112	1074	652	5601
Ribeye	1876	983	1029	1282	463	5633
Rio	1880	1099	848	1041	428	5297
Rust Master	1624	1070	780	1170	752	5395
Sirloin	1273	1008	1234	1216	1075	5806
Southern Star	2002	983	805	1104	553	5446
Stampede	1458	938	1141	1079	642	5257
Surrey	1837	1174	902	992	587	5492
TAM 90	1817	962	812	1012	503	5106
Tetragold	2057	1203	1267	1369	742	6638
TXR96-3	1549	875	881	1153	687	5145
TXR97-3	1923	992	870	1149	632	5566
Typhoon	1864	942	913	1137	443	5299
WVPB-AR-93-101	1738	1112	805	1203	553	5410
WVPB-AR-98-L	1923	1415	1332	1406	498	6574
WVPB-AR-R-3	1734	938	808	1091	612	5184
WVPB-F-11	1549	1157	1213	1228	553	5700
Mean	1745	1092	1018	1164	627	5647
LSD (0.05)	521	230	NS	241	337	809
CV%	21	15	30	15	38	10

Planting date: 10/5/98
Fertilization: 9/20/98 - 0-96-96 10/10/98 - 68-0-0 02/01/99 - 102-0-0

Table 6. Dry matter yield of cool-season perennial grasses, Prairie Research Unit, Prairie, MS, 1999.

Variety	Harvest Dates			Total	3-Year Average
	4/13/99	5/3/99	5/27/99		
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Tall Fescue					
Bull	1219	897	604	2721	3246
CAFA 401	1271	926	733	2390	3306
Georgia 5	1716	911	771	3399	3813
Jesup (EF)	1069	793	662	2485	3180
Kentucky 31	1378	993	804	3176	3808
PRO-B6	1064	965	800	2831	3462
WVPBTF B-3	1414	1022	862	3299	3485
WVPBTF B-5	1107	996	719	2823	3011
Mean	1307	947	740	2996	3414
LSD (0.05)	371	146	176	445	
CV%	19	10	16	12	

Planting date: 10/8/96
Fertilization: 180-0-0

Table 7. Dry matter yield of cool-season perennial grasses, Coastal Plain Branch, Newton, MS, 1998-99.

Variety	Harvest Dates		Total	3-Year Average
	4/16/99	5/19/99		
	lb/A	*lb/A*	*lb/A*	*lb/A*
Tall Fescue				
Bull	2488	647	3136	3171
CAFA 401	2839	659	3498	3300
Georgia 5	2833	786	3619	3517
Jessup Minus (EF)	3107	726	3833	3440
Kentucky 31	2032	555	2588	2911
PRO-B6	2324	800	3123	3095
WVPB TF B-3	2099	937	3036	3163
WVPB TF B-5	2252	528	2780	2521
WVPB TF B-16	2710	962	3671	3626
Orchardgrass				
MoTol 85II	--	856	856	2051
9007238	--	679	679	1926
Mean	2520	740	2801	2975
LSD (0.05)	701	297	744	
CV%	16	23	16	

Seeding rate: Fescue 20 lb/A Orchardgrass 15 lb/A
Planting date: 10/8/96
Fertilization: 10/22/98 - 65-65-65 4/16/99 - 34-0-0 1/29/99 - 68-0-0

Table 8. Dry matter yield of cool-season perennial grasses at Mississippi State, MS, 1998-99.

Variety	Harvest Dates				Total Yield	Heading 5/18/99
	12/3/98	3/8/99	4/8/99	5/18/99		
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*%*
Annual Ryegrass						
Barmultra	1103	544	1066	1453	4167	98
Barverdi	866	618	1152	1326	3963	95
Gulf	1255	1258	1345	1078	4936	100
Jackson	1161	889	1328	1159	4537	98
Marshall	1127	1077	1202	1346	4751	96
Perennial Ryegrass						
BG-14	619	251	622	1286	2777	65
BG-34	482	293	639	1065	2479	40
Grasslands	897	672	677	804	3049	20
Lafayette	451	544	550	643	2187	2
Lane	654	149	458	643	1904	0
Moy	614	346	643	1105	2709	79
Tetra	436	164	520	710	1830	0
Yatsyn	782	778	764	1219	3543	61
GD3251	362	293	668	1534	2857	80
Brome						
Gala	331	357	699	1306	2694	93
Stocker	778	565	782	1400	3525	100
Orchardgrass						
Quantum	133	197	485	1105	1920	2
LSD (0.05)	124	263	198	258	534	15

Soil: Marrieta Loam
Planting date: 9/10/98
Fertilization: 10/13/98 - 60-20-0
Herbicide: Weedmaster at 1 pt/A on 10/11/98 3/10/99 - 51-0-0

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		
La 514678	2599	3215
Lometa	3089	3642
Big Bluestem		
Kaw	2815	3525
PMC	2697	3070
Little Blue Stem	2171	2708
Mean	3033	3680
LDS (0.05)	1042	
CV%	24	

Planting date: 05/12/95
Fertilization: 60-0-0

Table 10. Dry matter yield of white clover, South Mississippi Branch Station, Poplarville, MS, 1998-99.

Variety	**Harvest Date** **6/18/99**
	lb/A
Canopy Ladino	2030
GA-21157	1307
GA-43	1481
GA-21156	810
GA-21158	950
Jumbo Ladino	1869
Osceola	1477
Prestige	1080
Regal	1564
Shasta Ladino	1681
T2	1716
Will	1734
Mean	1475
LSD (0.05)	446
CV%	21

Table 11. Dry matter yield of red clover, South Mississippi Branch Station, Poplarville, MS, 1998-99.

Variety	Harvest Dates		Total
	3/10/99	4/8/99	
	lb/A	*lb/A*	*lb/A*
Acclaim	875	1361	2236
Arlington	1033	1470	2503
Cherokee	1618	1432	3050
Cinnamon	987	1443	2430
Concorde	494	1537	2031
FLMR 7	1341	1304	2645
GA-981 RC	967	1400	2367
Kenstar	788	1199	1987
Marathon	788	1323	2111
Red Baron	758	1463	2221
Scarlett	967	1439	2406
Wildcat	847	1481	2328
Mean	955	1404	2359
LSD (.05)	473	NS	578
CV%	34	18	17

Table 12. Dry matter yield of annual clover, South Mississippi Branch Station, Poplarville, MS 1998-99.

Variety	Harvest Dates		Total
	2/24/99	4/8/99	
	lb/A	*lb/A*	*lb/A*
Crimson			
AU Sunrise	1307	1400	2707
Chief	1620	1809	3429
Dixie	1759	1915	3674
Tibbee	1238	1830	3068
Berseem			
Bigbee	604	1650	2254
Joe Burton	441	1425	1866
Arrowleaf			
Meechee	26	1872	1899
Yuchi	601	2250	2850
Mean	950	1769	2718
LSD (0.05)	428	487	600
CV%	30.6	18.7	15.0

Table 13. Dry matter yield of bermudagrass varieties at Prairie Research Unit, Prairie, MS, 1998.

Variety	Harvest Dates				Total
	5/12/98	6/8/98	7/22/98	8/26/98	
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Coastal	342	1966	1064	829	4199
Grazer	197	1143	867	618	2824
Hardie	440	1309	830	697	3384
Lancaster	69	658	993	460	2163
Murphy	421	1292	1016	670	3399
Poplarville	57	1486	1360	634	3587
Prairie I	365	1490	869	467	3190
Prairie II	407	1280	937	798	3411
Prairie III	152	1281	1108	669	3210
Russell	412	1242	1242	881	3777
Tifton 44	508	1582	1582	738	4521
Tifton 85	774	1174	1174	734	3855
Mean	338	1339	1086	687	3468
LDS(0.05)	231	312	223	216	673
CV%	46	14	14	22	13

Established: 5/8/95
Fertilization: 150 lb N

Table 14. Dry matter yield of bermudagrass varieties at the Brown Loam Branch Station, Raymond, MS, 1998.

Variety	Harvest Dates				Total	4-Year Average
	6/2/98	7/10/98	8/18/98	10/9/98		
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Alicia	2841	1861	2343	1028	8074	7959
Coastal	2243	2095	2310	1188	7837	7418
Common	2013	1647	1998	592	6250	5957
Grazer	2795	897	1180	464	5336	4548
Hardie	1469	1615	1417	687	5187	4664
Landcaster	1921	773	1173	329	4197	3280
Murphy I	3086	1342	1846	961	7235	5899
Murphy II	2221	822	952	521	4516	4551
Poplarville	2752	823	1909	727	6211	5588
Tifton 85	1591	2274	2272	1283	7420	8719
Tifton 78	2291	2660	2525	1513	8988	8223
Tifton 78 WH	2330	2456	2470	1756	9012	7771
Tifton 44	3064	1839	2611	989	8503	6913
Pensacola Bahia	2555	2339	1697	1243	7834	7413
Tifton 9 Bahia	2877	2091	1810	1392	8170	8024
Mean	2403	1702	1901	978	6985	6462
LSD (0.05)	772	496	593	347	1338	
CV%	22	20	22	25	13	

Planting date: April 1994
Fertilization: 5/7/98 - 80-0-0

Table 15. Dry matter yield of bermudagrass varieties, Coastal Plain Branch, Newton, MS 1998.

Variety	Harvest Dates				Total	4-Year Average
	6/9/98	7/9/98	8/19/98	8/21/98		
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Alicia	3603	2573	2519	581	9276	8485
Coastal	2957	2665	2459	650	8731	8222
Common	1081	1867	1948	232	5127	5591
Grazer	756	1774	2080	130	4739	4700
Hardie	1879	1713	1905	228	5724	5834
Landcaster	791	2031	1277	342	4440	4468
Lott	1816	1681	2202	1060	6760	&emdash;
Murphy	2331	2282	2440	325	7377	7506
Poplarville	1925	2088	1734	84	5831	5692
Sumrall 007	2350	2341	2802	968	8461	&emdash;
Tifton 85	2748	2662	3051	969	9580	8496
Tifton 78 WH	2905	2422	2474	994	8795	8921
Tifton 78	2799	2307	2439	1302	8847	9142
Tifton 44	3245	2334	2787	523	9288	9072
Mean	2231	2224	2294	599	7348	7177
LSD (0.05)	498	526	417	343	989	--
CV %	16	17	13	40	9	--

Planting date: 4/19/94 (Lot and Sumrall were not planted until 1996.)

Fertilization: 4/2/98 - 1 ton lime/A 6/10/98 - 68-0-0 4/17/98 - 65-65-65 7/9/98 - 34-0-0

Table 16. Dry matter yield and stand of experimental bermudagrasses, Mississippi State, MS, 1998.

Variety/Line	Harvest Dates								Total Yield
	5/25/98		6/29/98		7/30/98		9/19/98		
	Yield	Stand	Yield	Stand	Yield	Stand	Yield	Stand	Yield
	lb/A	*pct*	*lb/A*	*pct*	*lb/A*	*pct*	*lb/A*	*pct*	*lb/A*
Alicia	859	60	1469	83	1260	100	2313	91	5900
Coastal	899	84	1751	96	1199	100	2809	98	6657
Murphy	221	31	490	58	826	90	654	40	2191
McDonald	1531	84	1619	94	1260	100	1982	77	6342
Russell	1186	74	1350	90	1269	100	2337	92	6142
Sumrall 007	1675	96	1710	99	1266	100	2619	99	7270
Tanberg	1131	59	561	34	405	35	1737	59	3834
Tifton 44	654	66	1384	93	1261	100	1950	87	5249
Tifton 78	183	20	608	46	894	75	640	34	2325
Tifton 78 WH	378	31	967	61	887	75	1359	56	3591
Tifton 85	28	11	244	19	560	60	217	20	1349
Mean	795	56	1105	70	1003	85	1720	68	4623
LSD (0.05)	677	28	658	21	397	34	815	27	2025
CV%	59	35	41	21	27	28	33	27	30

Planting date: 6/7/93
Fertilization: 4/6/98 - 75-25-50 6/30/98 - 60-20-40 8/6/98 - 50-0-0 10/2/98 - 1 ton lime/A lime 10/2/98 - 0-0-90
Herbicides: 0.2 oz/A Ally on 4/8/98

Table 17. Dry matter yield and stand of experimental bermudagrasses, Mississippi State, MS, 1998.

Variety/Line	Harvest Dates								Total Yield
	5/28/98		6/24/98		7/22/98		8/19/98		
	Yield	Stand	Yield	Stand	Yield	Stand	Yield	Stand	
	lb/A	*pct*	*lb/A*	*pct*	*lb/A*	*pct*	*lb/A*	*pct*	*lb/A*
Coastal	1553	79	1835	94	2564	90	1689	82	7640
Lott	1424	81	1220	84	1832	98	1763	80	6239
Poplarville	1028	90	1183	97	1956	100	1440	99	5607
Sumrall 007	2460	97	1592	99	2514	99	2138	99	8703
Tifton 44	1354	66	1413	81	1763	85	1262	53	5792
Tifton 85	1592	75	1872	89	2468	95	1966	97	7898
Mean	1568	81	1518	91	2183	94	1710	83	6980
LSD(0.05)	693	18	525	15	875	12	597	21	2064
CV%	29	15	23	11	27	8	23	17	20

Established: 6/4/96
Fertilization:
4/16/98 - 75-25-50 6/30/98 - 60-20-40 7/24/98 - 50-0-0 8/24/98 - 28-84-84 10/1/98 - 1 ton line/A 10/2/98 - 0-0-90
Herbicide: 0.2 oz/A Ally on 4/8/98