

***Performance of
COOL-SEASON ANNUAL FORAGE CROPS
in Louisiana, 2003-2004***

LAES Research Summary No. 160

LOUISIANA STATE UNIVERSITY AGRICULTURAL CENTER
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Performance of Cool-season Annual Forage Crops in Louisiana, 2003-2004

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Introduction

Winter annual forages are recommended for grazing, green chop, hay and silage production in Louisiana. Each year scientists of the Louisiana State University Agricultural Center conduct performance trials to evaluate the forage production of annual ryegrass, cereal rye, oat and wheat varieties. Trials are conducted at various LSU Agricultural Center research stations throughout the state to provide information on the performance of varieties under varying soil and climatic conditions.

Information provided by these trials is used by the LSU AgCenter scientists to develop a list of varieties recommended for use by Louisiana forage producers. To be included on the recommended list of a crop for which several varieties are available, a commercial variety must be tested for three consecutive years and have an average yield not less than 90% of the three-year mean of the top three yielding varieties. A variety will be listed as 'Promising' if, following two consecutive years of testing, it has shown acceptable agronomic performance and has yielded at least 90% of the average of the top three varieties. A variety will be dropped from the recommended list if it fails to perform satisfactorily or if it is no longer available to the producers.

Testing Procedures

The cool-season annual forage variety testing program is open to all commercially available varieties and advanced experimental lines of annual ryegrass, cereal rye, and oats developed by either public or private plant breeding programs. The trials are managed using production practices recommended by the Louisiana Cooperative Extension Service (LCES) for each species, with soil amendments applied as indicated by soil test and herbicides used as appropriate.

Data on the cumulative forage yield and seasonal distribution of forage yield are collected for each trial to evaluate the adaptation of varieties to specific geographic regions of the state. The trials are conducted in randomized complete-block designs with three to four replications. Plots of each species are cut to a 2- to 4-inch stubble height when 8 to 12 inches tall. Cumulative forage yield data are combined across locations and years and analyzed by analysis of variance procedures to evaluate variety yields. The least significant difference (LSD) value represents the minimum amount

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by which variety yields must differ to be considered statistically different from one another. If differences are not detected among varieties, the LSD value is not presented.

ANNUAL RYEGRASS

Annual ryegrass (*Lolium multiflorum*) is recommended for use as a high quality winter grazing, hay or silage crop on most soils. Annual ryegrass should be planted at rates of 30 lbs/acre if seeded alone or 20 lbs/acre if seeded with clover. Recommended seeding dates for annual ryegrass are between September 20 and October 15 if planted into a prepared seedbed and approximately October 15 if planted into an existing sod.

Annual ryegrass variety tests were conducted at four LSU AgCenter research stations and at McNeese State University during the 2003-04 growing season (Table 1). Plots at all locations were seeded at the rate of 30 lbs/acre into a prepared seedbed. Phosphorus (P) and potassium (K) fertilizer was applied at all locations according to soil test recommendations made by the Louisiana Cooperative Extension Service. Total nitrogen (N) applied was 250 lbs/acre in multiple applications at planting and after second and fourth harvests. Submitting agencies for annual ryegrass varieties evaluated for forage yield are listed in Appendix A.

Table 1. Planting dates and soil types of locations cooperating in the 2003-04 annual ryegrass variety tests.

Research Station	Location	Planting Date	Soil Type
Southeast	Franklinton	October 14, 2003	Tangi silt loam
Iberia	Jeanerette	October 21, 2003	Iberia silty-clay loam
McNeese State University*	Lake Charles	October 7, 2003	Midland silty clay loam
Rosepine	Rosepine	October 2, 2003	Bowie fine-sandy loam
Macon Ridge	Winnsboro	October 15, 2003	Gigger silt loam

*McNeese State University is not an LSU AgCenter research station.

Results of annual ryegrass trials

Annual ryegrass entry, location and statewide yield means for 1, 2 and 3 years are presented in Tables 2, 3 and 4. Dry forage production from annual ryegrass entries through the 2003-04 growing season at each location are presented in Tables 5 through 9. Recommended varieties for 2004 are Gulf, Jackson, Marshall, Passerel Plus, TAM 90, Beefbuilder III, Prine, Brigadier and Ed. Diamond T and WD-40 are promising varieties for 2004.

Table 2. Dry forage production from annual ryegrass entries grown at five locations in Louisiana during the 2003-2004 growing season.

Brand/Variety	Trial Locations					2003-04 Mean
	Franklinton	Jeanerette	Lake Charles	Rosepine	Winnsboro	
	----- Dry forage, lbs./acre -----					
Beefbuilder III	8435	8231	8697	5862	8746	7994
Graze-n-Gro	7534	8725	7820	6526	8369	7795
Prine	8288	8655	6963	6433	8486	7765
Gulf	8029	8451	7797	5339	9176	7758
FL/OK 2001(New1) LRCT	7307	8150	7470	6561	9129	7723
Ed	7474	8071	7643	6642	8701	7706
Marshall	8184	8423	6552	5998	9298	7691
Wax ME94	7818	8396	7357	6290	8411	7654
Dyna Gain	8322	8153	7080	6196	8428	7636
Tam 90	7862	8755	7015	5409	9027	7614
Passerel Plus	8058	8371	7180	5309	9111	7606
King	7769	8593	7253	5592	8728	7587
FLX2002(new2)LRCT	7639	8092	7790	5318	8989	7566
Abundant	7615	8444	7850	5554	8187	7530
Jackson	7675	8423	6927	5746	8797	7514
Diamond T	7945	8375	6590	5477	9164	7510
4X	8306	8967	5893	5787	8541	7499
Stampede	8389	8007	7050	5717	8256	7484
WD-40	8279	7978	6953	5909	8071	7438
Brigadier	7236	7606	7903	5978	8373	7419
FL/NE X2003 (4X) LRCT	7616	7945	6330	6492	8454	7367
Rio	7869	8538	5660	6183	8278	7306
Bar 9 Tam	8089	8546	5243	5164	7872	6983
WMN97	7661	7295	5920	4841	9038	6951
Ducado	6085	8094	6660	5033	7906	6756
FL X2003 (New 2) ER	6114	7678	7112	5161	7299	6673
Shiwasuaoba	5996	6798	5257	3505	6255	5562
Mean	7689	8213	6962	5705	8485	7411
CV%	7	9	9	12	7	8
LSD (0.05)	849	998	1063	1090	905	436

Table 3. Dry forage production from annual ryegrass entries at four locations in Louisiana during two growing seasons, 2002-2004.

Brand/Variety	Trial Locations				2-Year Mean
	Franklinton	Jeanerette	Rosepine	Winnsboro	
	----- Dry forage, lbs./acre -----				
Beefbuilder III	9359	7277	4869	8296	7450
Prine	8004	7568	5131	8632	7334
Passerel Plus	8257	7389	4677	8897	7305
Marshall	7978	7329	5059	8734	7275
Bar 9 Tam	9631	7139	4578	7623	7243
Wax ME94	8272	7390	5061	8064	7197
Ed	7696	7195	5471	8210	7143
Brigadier	8063	7154	5157	8086	7115
Diamond T	7655	7293	4770	8561	7070
Tam 90	7799	7443	4538	8301	7020
FLX2002(new2)LRCT	7752	7148	4574	8274	6937
Jackson	6986	7281	4757	8461	6872
Gulf	7386	7109	4614	8332	6860
WD-40	7402	6939	4788	7800	6732
WMN97	6802	6592	4372	8440	6552
Mean	7936	7216	4828	8314	7074
CV%	12	9	12	6	11
LSD (0.05)	1108	NS	NS	610	415

Table 4. Dry forage production from annual ryegrass entries at four locations in Louisiana during three growing seasons, 2001-2004.

Brand/Variety	Trial Locations				3-Year Mean
	Franklinton	Jeanerette	Rosepine	Winnsboro	
	----- Dry forage, lbs./acre -----				
Prine	7925	7663	5714	8086	7347
Beefbuilder III	8821	7426	5081	8006	7333
Marshall	7960	7618	5431	8291	7325
Passerel Plus	7902	7548	5126	8480	7264
Wax ME94	7826	7478	5520	7878	7175
Ed	7633	7374	5517	7681	7051
Brigadier	7791	7277	5199	7674	6985
Gulf	7743	7239	5021	7759	6940
Tam 90	7337	7506	4782	7726	6838
Jackson	6767	7503	4842	7914	6757
WMN97	6586	6983	4982	7898	6612
Mean	7663	7420	5201	7945	7057
CV%	12	9	15	6	11
LSD (0.05)	882	NS	NS	480	362

Table 5. Dry forage production from annual ryegrass entries during the 2003-2004 growing season at Southeast Research Station, Franklinton, Louisiana.

Brand/Variety	Harvest Dates					2003-04
	12/16/03	1/23/04	3/11/04	4/9/04	5/24/04	Total
	----- Dry forage, lbs./acre -----					
Beefbuilder III	524	448	1774	3577	2112	8435
Stampede	932	753	2057	3215	1432	8389
Dyna Gain	554	770	2265	3452	1280	8322
4X	439	588	1949	4256	1073	8306
Prine	475	533	1804	4292	1185	8288
WD-40	631	804	2495	3516	834	8279
Marshall	335	435	2135	4330	950	8184
Bar 9 Tam	518	476	1892	3903	1300	8089
Passerel Plus	599	594	1708	3542	1615	8058
Gulf	594	470	1775	4300	890	8029
Diamond T	421	572	1931	3528	1494	7945
Rio	659	601	1950	3289	1370	7869
Tam 90	758	809	2276	3078	940	7862
Wax ME94	487	434	1791	4070	1036	7818
King	535	513	2676	2726	1319	7769
Jackson	526	427	1658	3742	1323	7675
WMN97	496	439	1695	4014	1017	7661
FLX2002(new2)LRCT	402	410	2085	3331	1410	7639
FL/NE X2003 (4X) LRCT	259	402	2263	3297	1395	7616
Abundant	421	485	1732	3849	1128	7615
Graze-n-Gro	580	453	1650	3493	1358	7534
Ed	495	444	2034	3137	1363	7474
FL/OK 2001(New1) LRCT	275	431	2032	3285	1285	7307
Brigadier	390	429	2065	3058	1293	7236
FL X2003 (New 2) ER	285	486	3010	1644	688	6114
Ducado	406	539	2111	2280	749	6085
Shiwasuaoba	686	1264	2594	1292	160	5996
Mean	507	556	2052	3389	1185	7689
CV%	43	28	13	6	13	7
LSD (0.05)	NS	256	428	360	259	849

Table 6. Dry forage production from annual ryegrass entries during the 2003-2004 growing season at Iberia Research Station, Jeanerette, Louisiana.

Brand/Variety	Harvest Dates				2003-04
	1/7/04	2/19/04	3/12/04	4/21/04	Total
	----- Dry forage, lbs./acre -----				
4X	2099	891	1567	4411	8967
Tam 90	2149	834	1251	4522	8755
Graze-n-Gro	1978	798	1401	4548	8725
Prine	2206	922	1501	4027	8655
King	1734	797	1732	4331	8593
Bar 9 Tam	2182	854	1380	4131	8546
Rio	2398	873	1385	3883	8538
Gulf	2023	869	1573	3987	8451
Abundant	1701	750	1324	4669	8444
Marshall	2017	867	1422	4118	8423
Jackson	1534	710	1714	4464	8423
Wax ME94	1686	850	1393	4468	8396
Diamond T	2045	909	1561	3860	8375
Passerel Plus	1762	828	1347	4435	8371
Beefbuilder III	1507	888	1615	4222	8231
Dyna Gain	1792	786	1437	4139	8153
FL/OK 2001(New1) LRCT	1782	1034	1586	3747	8150
Ducado	1914	884	1739	3558	8094
FLX2002(new2)LRCT	1339	935	1446	4373	8092
Ed	2011	845	1433	3781	8071
Stampede	1946	859	1322	3880	8007
WD-40	1772	798	1511	3898	7978
FL/NE X2003 (4X) LRCT	1160	1000	1471	4315	7945
FL X2003 (New 2) ER	1392	863	1787	3636	7678
Brigadier	1705	833	1587	3481	7606
WMN97	1728	738	1168	3662	7295
Shiwasuaoba	2381	683	1320	2413	6798
Mean	1850	848	1480	4036	8213
CV%	22	18	12	16	9
LSD (0.05)	575	NS	244	931	998

Table 7. Dry forage production of annual ryegrass entries during the 2003-2004 growing season at McNeese State University, Lake Charles, Louisiana.

Brand/Variety	Harvest Dates					2003-04
	1/13/04	2/10/04	3/4/04	4/5/04	5/4/04	Total
	----- Dry forage, lbs./acre -----					
Beefbuilder III	1800	1100	2283	2063	1450	8697
Brigadier	1373	1430	2017	1827	1257	7903
Abundant	1867	1330	1890	1800	963	7850
Graze-n-Gro	1557	1223	2030	1903	1107	7820
Gulf	1600	1180	2040	1893	1083	7797
FLX2002(new2)LRCT	1483	1310	2063	1783	1150	7790
Ed	1600	1110	2010	1763	1160	7643
FL/OK 2001(New1) LRCT	1507	1350	1870	1697	1047	7470
Wax ME94	1457	1233	2083	1590	993	7357
King	1533	1143	2013	1523	1040	7253
Passerel Plus	1393	943	2117	1637	1090	7180
FL X2003 (New 2) ER	1400	1287	1645	1683	1097	7112
Dyna Gain	1530	1120	2030	1557	843	7080
Stampede	1600	1263	1930	1350	907	7050
Tam 90	1440	1247	1962	1470	897	7015
Prine	1687	973	1993	1393	917	6963
WD-40	1317	1100	1933	1453	1150	6953
Jackson	1613	973	1980	1360	1000	6927
Ducado	1247	970	1650	1540	1253	6660
Diamond T	1277	1020	1783	1567	943	6590
Marshall	1403	745	1970	1507	927	6552
FL/NE X2003 (4X) LRCT	1663	1127	1837	990	713	6330
WMN97	1427	867	1960	1133	533	5920
4X	1557	703	1670	1143	820	5893
Rio	1040	1013	1560	1250	797	5660
Shiwasuaoba	1443	1270	1027	1000	517	5257
Bar 9 Tam	1007	783	1617	1093	743	5243
Mean	1475	1104	1888	1517	978	6962
CV%	18	21	13	18	17	9
LSD (0.05)	NS	377	391	445	269	1063

Table 8. Dry forage production of annual ryegrass entries during the 2003-2004 growing season at Rosepine Research Station, Rosepine, Louisiana.

Brand/Variety	Harvest Dates					2003-04
	1/12/04	3/4/04	3/25/04	4/14/04	5/10/04	Total
	----- Dry forage, lbs./acre -----					
Ed	1246	2473	1036	779	1109	6642
FL/OK 2001(New1) LRCT	1066	2195	1252	708	1340	6561
Graze-n-Gro	980	2093	1336	855	1263	6526
FL/NE X2003 (4X) LRCT	955	2109	1404	736	1287	6492
Prine	1149	2005	1336	631	1312	6433
Wax ME94	853	1989	1428	787	1233	6290
Dyna Gain	990	1973	1370	648	1214	6196
Rio	1154	2091	1103	739	1097	6183
Marshall	712	1728	1532	666	1360	5998
Brigadier	787	2346	1035	725	1085	5978
WD-40	1024	2170	1291	491	934	5909
Beefbuilder III	722	1808	1356	675	1300	5862
4X	801	1601	1341	747	1297	5787
Jackson	862	2054	1154	629	1048	5746
Stampede	732	1727	1295	783	1181	5717
King	479	2190	1019	761	1144	5592
Abundant	713	1560	1287	763	1230	5554
Diamond T	695	1543	1109	888	1242	5477
Tam 90	938	1976	972	603	921	5409
Gulf	562	1568	1299	739	1171	5339
FLX2002(new2)LRCT	466	1624	1284	668	1276	5318
Passerel Plus	601	1540	1192	718	1257	5309
Bar 9 Tam	629	1657	1178	566	1134	5164
FL X2003 (New 2) ER	894	2210	643	754	660	5161
Ducado	627	1804	923	702	977	5033
WMN97	348	1338	1357	711	1088	4841
Shiwasuaoba	626	1506	508	441	424	3505
Mean	800	1884	1187	700	1133	5705
CV%	32	13	18	21	19	12
LSD (0.05)	418	408	342	NS	356	1090

Table 9. Dry forage production of annual ryegrass entries during the 2003-2004 growing season at Macon Ridge Research Station, Winnsboro, Louisiana.

Brand/Variety	Harvest Dates					2003-04
	1/7/04	2/4/04	3/8/04	4/2/04	5/4/04	Total
	----- Dry forage, lbs./acre -----					
Marshall	1750	687	1619	3108	2135	9298
Gulf	2009	681	1583	2584	2319	9176
Diamond T	1693	777	1541	2662	2490	9164
FL/OK 2001(New1) LRCT	1987	760	1729	2408	2246	9129
Passerel Plus	1769	717	1626	2549	2449	9111
WMN97	1342	589	1768	2973	2367	9038
Tam 90	2276	658	1361	2698	2035	9027
FLX2002(new2)LRCT	1974	701	1832	2453	2029	8989
Jackson	1950	699	1665	2673	1810	8797
Beefbuilder III	1620	661	1320	2771	2374	8746
King	2058	703	1696	2240	2030	8728
Ed	1865	677	1559	2293	2307	8701
4X	1628	642	1345	2817	2109	8541
Prine	1237	819	1506	2594	2330	8486
FL/NE X2003 (4X) LRCT	1607	667	1456	2403	2321	8454
Dyna Gain	1836	622	1368	2674	1928	8428
Wax ME94	1797	590	1582	2322	2120	8411
Brigadier	1944	601	1676	2227	1925	8373
Graze-n-Gro	1591	735	1586	2475	1982	8369
Rio	2052	624	1251	2253	2099	8278
Stampede	1733	560	1596	2387	1979	8256
Abundant	1405	695	1401	2315	2372	8187
WD-40	1971	510	1191	2551	1848	8071
Ducado	1674	615	1653	2309	1656	7906
Bar 9 Tam	1638	629	1436	2393	1775	7872
FL X2003 (New 2) ER	1761	681	1259	1961	1636	7299
Shiwasuaoba	2327	119	856	1625	1328	6255
Mean	1796	645	1499	2471	2074	8485
CV%	15	18	15	13	9	7
LSD (0.05)	436	190	359	541	295	905

CEREAL RYE

Cereal rye (*Secale cereale*) is more cold tolerant and generally produces more forage during late fall and early winter than does annual ryegrass. Cereal rye is recommended either alone or in mixtures with annual ryegrass for use as a winter grazing and/or spring hay crop on most soils and is more tolerant of soil acidity than ryegrass or other small-grain species. It is recommended that cereal rye be planted at rates of 90 lbs/acre if seeded alone or 60 lbs/acre if seeded with annual ryegrass (which should be seeded at 20 lbs/acre). Cereal rye should be planted between September 20 and October 15 if planted into a prepared seedbed and approximately October 15 if planted into an existing sod.

The cereal rye variety test was conducted at two LSU AgCenter research stations during the 2003-04 growing season (Table 10). Plots at these locations were seeded as pure stands at the rate of 90 lb/acre into a prepared seedbed. Phosphorus (P) and potassium (K) fertilizer was applied at all locations according to soil test recommendations made by the Louisiana Cooperative Extension Service. Total nitrogen (N) applied was 250 lbs/acre in multiple applications at planting and post harvest. Submitting agencies for cereal rye varieties are listed in Appendix A.

Table 10. Planting dates and soil types of locations cooperating in the 2002-03 cereal rye variety test.

Research Station	Location	Planting Date	Soil Type
Southeast	Franklinton	October 14, 2003	Tangi silt loam
Rosepine	Rosepine	October 2, 2003	Bowie fine-sandy loam

Results of cereal rye trials

Cereal rye entry location and statewide yield means for 1, 2 and 3 years are presented in Tables 11, 12 and 13. Dry forage production from cereal rye entries through the 2003-04 growing season at each location are presented in Tables 14 and 15. Recommended varieties for 2004 are Bates, Elbon, Maton, Oklon and Wintergrazer 70.

Table 11. Dry forage production from cereal rye entries grown at two locations in Louisiana during the 2003-2004 growing season.

Brand/Variety	Trial Locations		2003-04
	Franklinton	Rosepine	Mean
	----- Dry forage, lbs./acre -----		
Oklon	4935	2934	3935
WR 2001	5001	2702	3852
Elbon	5086	2487	3787
Wintermore	4907	2655	3781
Wintergrazer 70	4565	2868	3717
Noble Foundation NF65	4453	2753	3603
Maton	4903	2248	3576
NF 109	4687	2250	3469
Mean	4817	2612	3715
CV%	8	8	8
LSD (0.05)	NS	363	NS

Table 12. Dry forage production from cereal rye entries at two locations in Louisiana during two growing seasons, 2002-2004.

Brand/Variety	Trial Locations		2-Year
	Franklinton	Rosepine	Mean
	----- Dry forage, lbs./acre -----		
Noble Foundation NF65	4732	2777	3755
Bates	4678	2781	3729
Elbon	4798	2480	3639
Oklon	4583	2684	3633
Maton	4487	2508	3498
Wintergrazer 70	4641	2040	3340
Mean	4653	2545	3599
CV%	17	18	20
LSD (0.05)	NS	NS	NS

Table 13. Dry forage production from cereal rye entries at two locations in Louisiana during three growing seasons, 2001-2004.

Brand/Variety	Trial Locations		3-Year
	Franklinton	Rosepine	Mean
	----- Dry forage, lbs./acre -----		
Elbon	5036	2907	3972
Noble Foundation NF65	4988	2828	3908
Bates	4899	2874	3887
Wintergrazer 70	4862	2598	3730
Maton	4588	2868	3728
Oklon	4526	2869	3697
Mean	4817	2824	3820
CV%	14	17	17
LSD (0.05)	NS	NS	NS

Table 14. Dry forage production from cereal rye entries during the 2003-2004 growing season at Southeast Research Station, Franklinton, Louisiana.

Brand/Variety	Harvest Dates				2003-04
	12/19/2004	1/23/2004	3/11/2004	4/9/2004	Total
	----- Dry forage, lbs./acre -----				
Elbon	285	221	1963	2618	5086
WR 2001	448	401	2782	1370	5001
Oklon	506	446	2733	1251	4935
Wintermore	485	397	2501	1525	4907
Maton	278	190	2382	2052	4903
NF 109	229	203	2091	2165	4687
Wintergrazer 70	483	352	2349	1382	4565
Noble Foundation NF65	523	425	2885	621	4453
Mean	405	329	2461	1623	4817
CV%	20	20	9	12	8
LSD (0.05)	144	113	381	344	NS

Table 15. Dry forage production from cereal rye entries during the 2003-2004 growing season at Rosepine Research Station, Rosepine, Louisiana.

Brand/Variety	Harvest Dates			2003-04
	1/22/2004	3/1/2004	3/18/2004	Total
	----- Dry forage, lbs./acre -----			
Oklon	1210	1316	409	2934
Wintergrazer 70	967	1396	505	2868
Noble Foundation NF65	1010	1406	337	2753
WR 2001	953	1363	387	2702
Wintermore	983	1181	490	2655
Elbon	688	938	861	2487
NF 109	675	883	692	2250
Maton	562	809	878	2248
Mean	881	1162	570	2612
CV%	18	15	24	8
LSD (0.05)	276	305	238	363

OATS

Oats (*Avena sativa*) produce high quality forage during the early winter season. Oats should be seeded at rates of 100 lbs/acre if planted alone or 60 lbs/acre if planted with annual ryegrass (which should be planted at 20 lbs/acre). Oats should be planted between September 1 and October 15 in northern Louisiana and between September 15 and October 15 in southern Louisiana if planted into a prepared seedbed and approximately October 15 if planted into an existing sod. Plots at all locations were planted as pure stands at the rate of 100 lbs/acre into a prepared seedbed. Phosphorus (P) and potassium (K) fertilizer was applied at all locations according to soil test recommendations made by the Louisiana Cooperative Extension Service. Total nitrogen (N) applied was 250 lbs/acre in multiple applications at planting and post harvest.

The oat variety tests were conducted at two LSU AgCenter research stations during the 2003-04 growing season (Table 16). Originating agencies for oat varieties evaluated in the forage variety test during the 2003-04 growing season are listed in Appendix A.

Table 16. Planting dates and soil types of locations cooperating in the 2002-03 cereal rye variety test.

Research Station	Location	Planting Date	Soil Type
Southeast	Franklinton	October 14, 2003	Tangi silt loam
Rosepine	Rosepine	October 2, 2003	Bowie fine-sandy loam

Results of oat trials

Oat entry location and statewide yield means for 1, 2 and 3 years are presented in Tables 17, 18 and 19. Recommended varieties for 2004 are LA 9339 and Horizon 314. Plantation Seed Horizon 474 is a promising variety for 2004.

Table 17. Dry forage production from oat entries grown at two locations in Louisiana during the 2003-2004 growing season.

Brand/Variety	Harvest Dates		2003-04
	Franklinton	Rosepine	Mean
	----- Dry forage, lbs./acre -----		
LA 9339	6628	4621	5625
Plantation Seed Horizon 474	6001	5134	5568
FL9708-P37 exp.	6458	4308	5383
LSUAGCTR LA976GBS-22-B-S2	5692	4358	5025
LSUAGCTR LA989SBS-49-B-S1	4993	4817	4905
LSUAGCTR LA9533D63-1-C-S3	4802	4816	4809
LSUAGCTR LA9810SBS-58	5146	4457	4802
Horizon 314	4980	4208	4594
LSUAGCTR LA966BSB119-1	5314	3434	4374
Magnum 2000	3967	3987	3977
Mean	5398	4414	4906
CV%	8	20	14
LSD (0.05)	700	NS	817

Table 18. Dry forage production from oat entries at two locations in Louisiana during two growing seasons, 2002-2004.

Brand/Variety	Trial Locations		2-Year
	Franklinton	Rosepine	Mean
	----- Dry forage, lbs./acre -----		
Plantation Seed Horizon 474	5561	4381	4971
FL9708-P37 exp.	5478	3925	4702
LA 9339	5173	4043	4608
LSUAGCTR LA9810SBS-58	4931	4140	4536
Horizon 314	4602	3640	4121
LSUAGCTR LA966BSB119-1	4704	3433	4069
Mean	5075	3927	4501
CV%	10	23	18
LSD (0.05)	606	NS	NS

Table 19. Dry forage production from oat entries at Franklinton, Louisiana, during three growing seasons, 2001-2004.

Brand/Variety	3-Year Mean
	Dry forage, lbs./acre
LA 9339	4208
Horizon 314	3698
Mean	3953
CV%	16
LSD (0.05)	NS

Table 20. Dry forage production from oat entries during the 2003-2004 growing season at Southeast Research Station, Franklinton, Louisiana.

Brand/Variety	Harvest Dates				2003-04
	12/16/2003	1/23/2004	3/11/2004	4/9/2004	Total
	----- Dry forage, lbs./acre -----				
LA 9339	592	513	1836	3688	6628
FL9708-P37 exp.	513	354	2215	3376	6458
Plantation Seed Horizon 474	709	529	2719	2045	6001
LSUAGCTR LA976GBS-22-B-S2	383	357	2076	2876	5692
LSUAGCTR LA966BSB119-1	514	539	1613	2647	5314
LSUAGCTR LA9810SBS-58	626	647	1885	1988	5146
LSUAGCTR LA989SBS-49-B-S1	189	406	1928	2470	4993
Horizon 314	424	383	1626	2546	4980
LSUAGCTR LA9533D63-1-C-S3	528	478	1557	2238	4802
Magnum 2000	1105	778	861	1222	3967
Mean	558	498	1832	2510	5398
CV%	22	20	18	6	8
LSD (0.05)	210	173	553	277	700

Table 21. Dry forage production from oat entries during the 2003-2004 growing season at Rosepine Research Station, Rosepine, Louisiana.

Brand/Variety	Harvest Dates			2003-04
	12/18/2003	3/3/2004	3/31/2001	Total
	----- Dry forage, lbs./acre -----			
Plantation Seed Horizon 474	1200	2660	1273	5134
LSUAGCTR LA989SBS-49-B-S1	558	2354	1904	4817
LSUAGCTR LA9533D63-1-C-S3	1128	2044	1643	4816
LA 9339	856	2139	1625	4621
LSUAGCTR LA9810SBS-58	724	2566	1167	4457
LSUAGCTR LA976GBS-22-B-S2	615	2168	1574	4358
FL9708-P37 exp.	850	1871	1586	4308
Horizon 314	604	2104	1500	4208
Magnum 2000	1397	1693	897	3987
LSUAGCTR LA966BSB119-1	844	1507	1083	3434
Mean	878	2111	1425	4414
CV%	35	18	38	20
LSD (0.05)	522	635	NS	NS

Appendix A. Originating Agencies for Annual Ryegrass Varieties Entered in 2003-2004 Variety Tests.

Brand/Variety	Originating Agency
Abundant	DLF International Seeds, P.O. Box 229, Halsey, OR 97348
BAR9TAM	Texas A & M Research and Extension Center, P. O. Box 200, Overton, TX 75684
Beefbuilder III	Forbes Seed & Grain, Inc., P.O. Box 85, Junction City, OR 97448
Brigadier, Prine	Ragan and Massey, 100 Ponchatoula Parkway, Ponchatoula, LA 70454
Diamond T, 4X, WD-40	Oregro Seeds, Inc., P.O. Box 10, Shedd, OR 97377
Ducado, Passerel Plus, Shiwasuaoba	Pennington Seed, Inc., P. O. Box 290, Madison, GA 30650
Dyan Gain	UAP MidSouth, 57 Germantown Court, Suite 200, Cordova, TN 38018
Ed	Smith Seed Services, P.O. Box 288, Halsey, OR 97348
FL/NE X2002(New 2) LRCT, FL X2003 (New 2) ER, FL/NE X2003 (4X) LRCT	University of Florida, P.O. Box 110500, 304 Newell Hall, Gainesville, FL 32611-0500
Graze-N-Gro, FL/OK 2001(New1) LRCT	Seed Research of Oregon, 27630 Llewellyn Rd., Corvallis, OR 97333
Gulf	Acquired locally
Jackson, Marshall, ME94, WMN 97	The Wax Company, LLC, P.O. Box 60, Amory, MS 38821
King	Lewis Seed Co., 33820 Linn West Drive, Shedd, OR 97377
Rio, Stampede	Pro Seeds Marketing, 13963 Westside Lane S, Jefferson, OR 97352
TAM 90	East Texas Seeds, P.O. Box 569, Tyler, TX 75710

Appendix B. Originating Agencies for Cereal Rye Varieties Entered in 2003-2004 Variety Tests.

Brand/Variety	Originating Agency
Bates, Elbon, Maton, NF65, Oklon	The Samuel Roberts Noble Foundation, Inc., P.O. Box 2180, Ardmore, OK 73402
Wintergrazer 70	Pennington Seed, Inc., P.O. Box 290, Madison, GA 30650
Wintermore, WR 2001	Seed Resource, P.O. Box 326, Tulia, TX 79088

Appendix C. Originating Agencies for Oat Varieties Entered in 2003-2004 Variety Tests.

Brand/Variety	Originating Agency
FL 9708-P37, Horizon 314, Horizon 474	North Florida Research & Educ. Center, University of Florida, 155 Research Rd, Quincy, FL 32351
LA 9339	Ragan and Massey, 100 Ponchatoula Parkway, Ponchatoula, LA 70454
LA976GBS-22-B-S2, LA989SBS-49-B-S1, LA9810SBS-58, LA9533D63-1-C-S3, LA966BSB119-1	Agronomy Department, LSU AgCenter, Baton Rouge, LA 70803
Magnum 2000	Pennington Seed, Inc., P.O. Box 290, Madison, GA 30650