RYEGRASS FORAGE YIELDS AT BEAUMONT FOR 1998-99 AND THREE-YEAR MEANS

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Background. The annual ryegrass forage crop is an important winter annual in southeast Texas. Ryegrass has advantages over small grains in that it will produce more forage in warm weather than wheat and rye. Ryegrass is also more disease resistant than small grains and is tolerant to water logged soils which often occur along the Gulf Coast. It also will normally produce a greater total season forage yield than oats, wheat, or rye. A disadvantage of ryegrass is that it is less productive than small grains in autumn and winter. Along the Gulf Coast, however, with warm winters, ryegrass forage should be available throughout the winter and spring months. Ryegrass forage is high in nutritive value and grazing animals can normally graze ryegrass until late May. Past research indicates that higher yielding varieties in southeast Texas are not the same as in North Texas. Therefore clipping data from Beaumont should be useful in selecting best varieties for southeast Texas.

Research Findings. An annual ryegrass forage variety test is conducted annually at the TAMU Center at Beaumont. Commercial and experimental varieties were evaluated during the past 3 years. Fertilizer application rates and dates for the 1998-99 season are noted in Table 1. The test site was on a Lake Charles clay soil. Rainfall was below normal during the entire growing season of 1998-1999. Planting dates were late September normally and in 1998 the planting date was 30 September. Seed were drilled into a prepared seedbed at an 1/4 inch depth at 30 lb/ac. Plot size was 4 x 12 ft with three replications. One replication was discarded due to poor stands. The entire plots were harvested at a cutting height of 2 inches on 25 November, 15 December, 26 January, 16 March, 8 April, and 14 May. In the 25 November harvest, 'Titan' produced the highest yield closely followed by several other lines. In the second and third harvests, all yields were low with little differences between entries. On 16 March all entries produced good yields with 'Big Daddy' leading the test. On the 8 April harvest yields of some lines were quite low because of early maturity while others were still productive. In the last harvest on 14 May, all yields were low and forage nutritive value would have been poor due to mainly stems being harvested. Total season yields and three-year mean yields provide the best indication of yield potential of these varieties in South Texas. Crown rust is often important along the Gulf Coast. Crown rust susceptible varieties such as Marshall should not be planted within 100 miles of the Gulf Coast.

Application. Higher yielding lines at Beaumont are often not the best varieties at Overton.

Data presented from these trials should be useful in selecting ryegrass varieties for the Gulf Coast Region. Depending on variety availability, compare forage yields and crown rust resistance to determine which variety you may want to plant on your ranch.

Table 1. Ryegrass forage variety test at Beaumont, Texas for 1998-99 (yield data are a mean of 2 replications).

Variety	HAR 1 Nov 25	HAR 2 Dec 15	HAR 3 Jan 26	HAR 4 Mar 16	HAR 5 Apr 8	HAR 6 May 14	Total Seasonal Yield	3-Year Mean	Crown Rust Rating
	pounds of dry matter per acre								
Natchez	1405	687	959	1449	1003	155	5659	6510	0.5*
Big Daddy	1444	658	641	1636	1110	137	5625	6010	1.5
FLX1998(SII)LR2X	1403	500	609	1276	1237	290	5314	–[a]	1.5
Avance	1440	529	920	1407	802	82	5179	–	4.0
Shoot	1520	659	887	1090	822	172	5150	–	1.5
Tetragold	1524	521	850	1278	848	121	5141	–	4.5
Sirloin	979	626	718	1536	1123	145	5128	–	1.5
Beefbuilder	1332	601	830	1331	896	121	5111	–	1.5
Titan	1696	582	762	1031	828	183	5082	–	0.0
WVPB-AR-98-L	1001	557	631	1315	1165	374	5034	–	1.0
Jumbo	1025	539	660	1211	1186	388	5008	–	0.0
Terrabana	1116	634	814	1275	945	177	4960	–	2.3
Abundant	992	379	699	1436	1232	205	4942	5900	2.0
Surrey	1170	447	589	1386	1031	184	4806	5313	0.5
WVPB-AR-R-3	1266	554	685	1125	985	147	4763	5378	1.5
Stampede	1142	455	507	1177	1126	292	4698	5547	2.5
Gulf	1054	382	797	1382	849	169	4631	5479	1.5
TXR07-T-1	1395	620	553	1026	900	100	4593	–	2.5
Bounty	939	467	639	1247	1187	105	4583	–	3.0
WVPB-AR-F11	1049	640	694	1089	893	190	4554	5624	5.0
Lafayette	1281	450	527	1159	1028	108	4553	5525	2.5
TXR96-1	1497	629	399	1011	946	60	4541	–	1.5
ME 94	1151	390	506	1181	1074	215	4518	5211	3.5
Jackson	866	364	488	1185	1223	302	4428	5493	2.5
FLX1998(New)4N Late	861	429	611	1218	1042	248	4409	–	1.0
LE 284	1215	543	662	1253	633	68	4373	–	2.0
TAM 90	821	505	633	1272	999	136	4365	5107	3.0
Zorro	956	497	629	1110	979	184	4354	–	0.5
FLX1998(New)2N LR	1051	368	531	1186	927	281	4344	–	2.0
Ribeye	852	342	558	1383	987	133	4255	–	2.0
Southern Star	981	393	557	1121	985	211	4248	5425	2.0
Cetus	762	364	689	1480	799	135	4229	–	1.5
TXR97-3	976	384	564	1154	1001	124	4202	–	2.0
Passerel Plus	758	365	479	1077	1115	377	4171	–	1.5
TXR96-3	612	340	552	1314	1171	99	4146	–	2.0
Hercules	1249	474	795	979	555	89	4140	5257	7.0
WVPB-AR-93-101	548	534	550	1095	980	118	4124	5183	3.5
Florida 4N	1009	582	587	945	765	235	4122	–	2.5
Rio	980	375	499	1165	854	217	4091	5113	3.0
Grazer	929	353	651	1581	485	71	4070	4887	4.0
TXR97-6	1143	465	488	932	872	67	3965	–	2.5
Marshall	1108	446	398	930	793	170	3844	4670	8.0
Podium	1146	488	621	792	614	100	3760	–	2.0
Passerel	891	474	470	948	786	158	3728	–	7.0
Mean	1110	492	634	1208	950	173	4567	–	
LSD	749	323	199	416	288	111			

Planted September 30, 1998. Fertilization: 200 lb/ac of 23-23-0. Topdressed with 40 lb N/ac on 29 Oct., 50 lb N/ac on 15 Dec., 50 lb on 9 Feb. and 50 lb on 17 Mar. 1999 as urea.

*Crown rust ratings were recorded on 31 Mar. 1999 on a 0 to 9 scale, where 0 = no disease and 9 = dead plants.

[a]Entry not tested over each of the last 3 years.