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

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Background. The annual ryegrass forage crop is an important winter annual in East and South Texas. Ryegrass has advantages over small grains in that it is later maturing and will produce more forage in warm weather than wheat, or rye. It also will normally produce a greater total season forage yield than oats, wheat or rye. Ryegrass can be overseeded onto warm season pastures greatly reducing the cost of preparing a seedbed. A disadvantage of ryegrass is that autumn and early winter forage production is less than small grains. If overseeded, forage may not be available until mid-February. Ryegrass forage is high in nutritive value and grazing animals can normally graze ryegrass until about June 1. Some varieties produce more forage in the fall while others produce higher yields in the winter or spring.

Research Findings. An annual ryegrass forage variety test is conducted annually at the TAMU Agricultural Research and Extension Center at Overton. Commercial and experimental varieties were evaluated during the past 3 years. Fertilizer application rates and dates are noted in Table 1. The test site was on a sandy soil. Heavy rainfall amounting to over 24 inches prior to December caused leaching of N and K (confirmed by soil test). Therefore additional N, P, and K were applied on 25 February. Planting dates were late September normally, and in 1998 the planting date was 21 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 four replications. The entire plots were harvested with a Hege plot harvester at a cutting height of 2 inches on 12 January, 17 February, 22 March, and 22 April 1999.

In the 12 January harvest, 'Gulf' produced the highest yield followed by 'Southern Star', 'TAM 90', 'Cetus', and 'Surrey'. In the second harvest on 17 February, all yields were low probably due to low soil fertility. On 22 March, all entries had responded to 25 February fertilization and warm temperatures to produce high yields. Higher yielding commercial entries were 'Big Daddy', 'Tetragold', 'Bounty', 'Hercules', 'Grazer', and 'Avance'. In the last harvest on 22 April, the highest yield of the season was harvested. Top yielding commercial varieties were 'Ribeye', TAM 90, 'Passerel', 'Passerel Plus', 'Marshall', 'Jackson', Southern Star and Tetragold. For the total season yield, the top 5 commercial entries were Southern Star, TAM 90, Tetragold, Gulf, and Ribeye. Over the last 3 years, higher yielding commercial varieties were 'Stampede', Southern Star, TAM 90, Grazer, Big Daddy and several others. No freeze injury was noted. Varieties such as Marshall and TAM 90 which have good winter hardiness could not express this important advantage in the warmer than normal growing season.

Application. Data presented from these trials should be useful in selecting ryegrass

varieties for your ranch. Depending on variety availability, compare forage yields to determine which variety you want to plant. Ryegrass will produce good forage yields in early spring and late spring but during cold weather little forage will be produced.

Table 1. Ryegrass forage variety test at Overton, Texas for 1998-99 and 3-year means.

Variety	Harvest 1 Jan 12	Harvest 2 Feb 17	Harvest 3 Mar 22	Harvest 4 Apr 22	Total DMY	Three Year Average
	pounds of dry matter per acre					
FLX1998 (SII) LR 2X*	1280	683	3461	3724	9147	–
Southern Star	1644	456	2245	3616	7961	6968
TAM 90	1589	660	1741	3965	7955	6877
Tetragold	855	669	2733	3626	7883	–
Gulf	2088	879	2262	2651	7878	6555
Waseaoba*	1565	776	2563	2817	7721	–
ME 94*	1404	438	2110	3724	7676	7092
Ribeye	804	484	2301	4076	7665	–
WVPB-AR-93-101*	1042	631	3098	2888	7659	6957
FLX1998 (New) 4N late*	1336	683	2698	2916	7632	–
Passerel	832	368	2629	3799	7628	–
Bounty	1350	709	2813	2752	7624	–
TXR96-3*	731	612	2654	3383	7380	–
Hercules	1309	500	2930	2601	7339	6065
Marshall	1004	607	2115	3546	7270	6589
Titan	1246	488	2522	2993	7249	–
Abundant	1310	659	2451	2821	7241	6490
Lafayette	1115	678	2257	3143	7193	6550
FLX1998 (New) 2N LR*	1076	494	2595	3020	7184	–
Grazer	911	669	2698	2834	7111	6786
Big Daddy	964	522	3212	2409	7106	6737
Cetus*	1675	592	1545	3290	7101	–
Avance	1133	641	2600	2695	7069	–
Passerel Plus	334	438	2181	4062	7015	–
Jackson	1397	333	1723	3561	7014	6035
WVPB-AR-F-11*	1302	299	2094	3267	6962	6469
WVPB-AR-R-3*	1070	466	2270	3054	6860	6210
Surrey	1532	473	2456	2377	6837	6552
Beefbuilder	1135	489	2036	3150	6811	–
Waseyutaka*	1461	709	2112	2422	6705	–
Stampede	329	282	2535	3545	6690	7000
Terrabana	1207	395	1786	3147	6534	–
Jumbo	347	425	2337	3394	6503	–
Florida 4N*	527	317	1823	3776	6444	–
Rio	1213	397	1784	2916	6309	6260
Natchez	589	416	2340	2948	6293	6554
WVPB-AR-98-L*	219	542	2138	3360	6259	–
Shoot	634	270	1937	2975	5815	–
Zorro	401	275	2553	2566	5795	–
Podium	282	203	1663	2407	4555	–
Grand Mean	1029	504	2300	3121	6954	
CV	51	50	28	18	19	
LSD (0.10)	479	230	580	500	1202	

Planted September 21, 1998. Fertilization: Preplant 500 lb 10-20-20/ac. Topdressed with 50 lb N/ac on November 2, 40 lb N/ac on December 18, 40 lb N/ac on January 15, 500 lb 13-13-13/ac on February 25, and 25 lb N/ac on March 24, 1999.

*Experimental line not available to growers.