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RYE FORAGE YIELDS AT OVERTON FOR 2000-2001 AND THREE-YEAR MEANS

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Background. Rye is an important winter annual forage crop in East Texas. Rye has advantages over other small grains in that it will produce more forage in cold weather than wheat, oats, or ryegrass. It is the most winter hardy of the small grains and will almost never winter-kill. Rye will also grow-off rapidly after seeding into a prepared seedbed and produce forage more rapidly than wheat, oats, or ryegrass. A disadvantage is that rye matures earlier in the spring with forage quality being lower (digestibility and protein content) during April and little or no production in May. There are significant differences between varieties and over years. Some varieties may produce more forage in the fall while others produce higher yields in the winter or spring.

Research Findings. A rye forage variety test is conducted annually at the TAMU Agricultural Research and Extension Center at Overton. Commercial and experimental rye varieties were evaluated during the past three years. Fertilizer application rates and dates for the 2000-01 study are noted in Table 1. Planting dates were early September normally; however, in 1994 due to a dry September the planting date was 4 October. Seed were drilled into a prepared seedbed at a 1 inch depth at 110 lb/ac. Plot size was 4 x 12 ft with four replications. The plots were harvested with a Hege plot harvester at a cutting height of 2 inches on 2 February, 21 February, 9 March, 30 March, and 2 May, 2001. Yields were very low on the first harvest indicating low production due to a wet November and cool cloudy conditions during December and January. In the 2nd harvest on 21 February, production was improved with 'WREN 96' and 'Fayetteville' producing higher yields. On the 9 March harvest, 'Maton' produced the higher yield, however, it was closely followed by Fayetteville, 'Elbon' and several experimental lines. In the 2 May harvest, very high forage yields were produced, however, much of this production was stems and seed heads. Maton had the highest yield of 4035 lb/ac. For the total season yields, experimental XR9909, and Maton had higher yields, but were closely followed by several entries. The 3-year average yields indicate that 'Oklon', and 'Bates' produced a higher 3-year mean yield than Maton. Leaf rust has not been a problem during the past three years at Overton. No winter kill or freeze injury was noted in this trial.

Application. Data presented from these trials should be useful in selecting rye varieties for your ranch. Depending on variety availability, compare forage yields to determine which variety you want to plant. Rye-ryegrass mixtures are often more productive than rye alone. Rye will produce good forage yields during the early fall, winter, and early spring. Ryegrass will produce

more forage in the spring to late spring and improve overall forage quality especially during the late spring.

Table 2. Rye forage variety test at Overton, Texas for 2000-2001 and 3-year mean yields.

Variety	Harvest 1 Feb 2	Harvest 2 Feb 21	Harvest 3 Mar 9	Harvest 4 Mar 30	Harvest 5 May 2	Total DMY	3-Year Mean Yield
	-----pounds of dry matter per acre-----						
XR9909*	0	642	837	2633	3398	7510	- ^a
Maton	26	293	914	1031	4035	6299	4346
XR9903*	216	511	639	1166	3424	5956	-
NF 65*	133	768	896	971	2736	5504	-
Fayetteville	99	642	731	1220	2746	5438	-
WREN 96	243	731	615	969	2763	5321	-
SPI Rye	84	542	891	1040	2604	5161	-
Oklon	101	514	475	1290	2610	4990	4920
Elbon	119	453	782	1159	2429	4942	4551
NF 1*	279	684	751	1149	1878	4741	-
XR9908*	150	426	701	1043	2403	4723	-
GA96RSI*	416	560	680	742	2031	4429	-
Wintergrazer 70	48	563	643	851	2273	4378	-
Bates	32	477	691	1068	2072	4340	4812
SYN-T*	225	395	476	723	2418	4237	-
Grand Mean	145	547	715	1137	2655	5199	-
CV	127	31	26	21	22	13	-
LSD	218	203	223	286	698	791	-

Planted October 4, 2000. Fertilization: Preplant 400 lb 10-26-26 ac. Topdressed with 40 lb N/ac on November 22, 2000, 40 lb N/ac on January 29, 2001, 40 lb N/ac on March 5, 2001 and 40 lb N on April 4, 2001. Applied Finesse at 1/3 oz ai/ac on November 16, 2000 for weed control.

*Experimental line, seed presently not available.

*Not tested over past 3 years.