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

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Background. Rye is an important winter annual forage crop in East Texas. Rye has advantages of other small grains in that it will produce more forage in cold weather than wheat, oats, or ryegrass. It is also more winter hardy than other small grains and will almost never winter-kill. Rye will also grow-off rapidly after seeding in 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 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 3 years. Fertilizer application rates and dates for the 1998-99 study are noted in Table 1. Planting dates were early September normally, however, in 1994 the planting date was 18 September. Seed were drilled into a prepared seedbed at an 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 8 December 1998, 27 January, 5 March, and 6 April 1999. 'Maton' and 'Bates' produced the higher forage yields on the 8 December harvest. On the 27 January harvest, 'Wintermore' produced the higher yield. In the 5 March harvest, Wintermore, 'Wren 96' and Maton were the higher yielding entries. In the last harvest on 6 April, Maton again produced the highest forage yield. 'Coker 9803' is a soft red winter wheat and was entered in this experiment to provide a check for comparison purposes. These data indicate that rye will normally produce higher forage yields than wheat in East Texas. The 3-year average yields indicate that Maton had the best yield over the past three years. Bates had a significantly lower yield than Maton and Elbon and Oklon produced less than Bates. The past three growing seasons have been above average in temperature and this may have affected the results. Leaf rust has not been a problem during the past three years at Overton. No winterkill 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 spring when rye has become mature.

Table 1. Rye forage variety test at Overton, Texas for 1998-99 and 3-year mean yields.

Variety	Harvest 1 Dec 8	Harvest 2 Jan 27	Harvest 3 Mar 5	Harvest 4 Apr 6	Total DMY	3 Year Average
	pounds of dry matter/acre					
Maton	703	284	1212	3196	5394	6711
Wren 96	582	407	1355	2690	5034	--[a]
Wintermore	601	503	1404	2257	4765	--
Bates	706	358	809	2417	4290	5744
Oklon	625	455	522	2442	4043	5380
TRT 2000	474	200	574	2687	3935	--
Coker 9803	514	195	450	2678	3836	--
Elbon	539	213	771	2280	3802	5497
Grand Mean	593	327	887	2581	4387	--
CV	40	33	19	11	11	--
LSD (0.10)	224	100	158	276	434	--

Planted September 18, 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.

[a]Not tested in all years.