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RYE FORAGE YIELDS AT OVERTON FOR 2004-2005 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 different 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 test is conducted annually at the TAMU Center at Overton. Commercial and experimental rye varieties were evaluated during the past three years. Fertilizer application rates and dates for the 2004-05 study are noted in Table 1. Planting dates were early September normally and in 2004 the planting date was 22 Sept. Seed were drilled into a prepared seedbed at a 1 inch depth at 110 lb/ac. Seed were drilled in 7 rows spaced 6 inches apart. Plot size was 4 x 12 ft with four replications. The plots were harvested with a Swift forage plot harvester at a cutting height of 2 inches on 8 Nov., 11 Jan., 28 Feb., 24 Mar., and 15 Apr. Rainfall was below average in Sept., adequate in the late fall and winter; however, moisture was very limiting in Mar., Apr., and May. Yields were good in the first harvest indicating early fall forage production. Higher yielding commercial varieties were Bates and Wintermore. Forage production was very low in the 2nd or 11 Jan. harvest. Highest yielding commercial variety was Wintermore. In the Feb. harvest yields were good. Higher yields were produced by experimental NF 65 and varieties Wintermore, Bates, WR2001, and Oklon. In the Mar. harvest, all entries produced high forage yields. Best commercial entries were Maton and Elbon, closely followed by Wintergrazer 70. In the 15 Apr. harvest, all entries produced good yields; however, much of this production was stems and of lower quality. Higher yielding varieties were Wintergrazer 70, Maton, and WR2001. For the total season yields, Wintermore produced the higher yield; however, it was not significantly higher than several other entries. The 3-year average yields indicate that of the varieties tested over that period, Bates, Wintermore, and Elbon were the higher producing commercial entries. 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 1. Rye forage variety test at Overton, Texas for 2004-2005.

Variety	Harvest 1 Nov. 8	Harvest 2 Jan. 11	Harvest 3 Feb. 28	Harvest 4 Mar. 24	Harvest 5 Apr. 15	Total DMY	3 Yr. Mean
	----------pounds of dry matter per acre----------						
NF 65*	762	574	1547	1356	1218	5457	6207
Wintermore	928	629	1175	1517	1157	5406	6530
Maton	779	463	954	1725	1338	5259	6287
Bates	958	428	1140	1430	1297	5253	6633
WR2001	901	558	1140	1344	1304	5247	6312
Oklon	793	489	1022	1352	1271	4927	6265
Wintergrazer 70	795	371	822	1522	1357	4867	–**
Elbon	670	390	795	1707	1168	4730	6401
Grand Mean	823	488	1074	1494	1264	5143	6140
LSD	107	110	140	147	137	440	675
CV	14	24	14	11	12	9	12

Planted September 22, 2004. Fertilization: Preplant 75 lb N, 0 lb P_2O_5, and 100 lb K_2O/ac, respectively. Topdressed with 40 lb N/ac on January 12, 20 lb/N/ac on March 4, 50 lb N/ac on March 25 and 60 lb K_2O/ac on March 25, 2005. Herbicide applied postemergence at 2 leaf stage: 0.4 oz/ac Finesse on October 5, 2004.

*Experimental line, seed presently not available.

**Entry not tested over past 3 years.