

# **PUBLICATIONS**

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## RYE FORAGE YIELDS AT OVERTON FOR 1996-97 AND THREE-YEAR MEANS

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**Background.** Rye is an important winter annual forage crop in East Texas. Rye will produce more forage during cold weather than other small grains or ryegrass. Rye is also more winterhardy than wheat, oats, or ryegrass. There are significant differences between varieties for seasonal and total forage yield. Some varieties produce more forage in the fall while others produce a more balanced forage yield throughout the growing season. Growers should be aware of forage distribution when selecting which varieties they will purchase each fall.

**Research Findings.** A rye forage variety test is conducted annually at 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 are noted on Table 1. Tests were planted into a prepared seedbed. Planting dates were early September normally, however, in 1996 the planting date was 9 September. Seed were drilled into a prepared seedbed at an 1 inch depth at 110 lbs/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 6 December, 25 February, 14 March, 16 April. The rye forage was approximately 10 inches tall at the first harvest on 6 December. The rye entries demonstrating best seedling vigor and rapid fall growth were experimental Noble Foundation 94, Oklon, and Elbon. The 25 February harvest indicated average winter regrowth, however, the best yielding entry was Oklon and experimental NF 94 followed by Fayetteville and Bates. In the 14 March harvest, yields were quite low with little differences between entries. In the 16 April harvest, yields were very good and the top yield was produced by Maton followed by Fayetteville and Bates. For the total season forage yield, the best yield was produced by Maton, however, Fayetteville, Bates and Elbon were fairly close in average total seasonal yield. For the three year mean yields, four varieties, which were Maton, Bates, Elbon, and Oklon produced high yields. Differences in yield between entries of less than the LSD (note under each column) may be due to experimental error and should not be considered significant.

**Application.** Data presented from these trials should be useful in selecting rye varieties for your farm. 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 1996-97 and mean yield over 3 years.

Variety	Harvest 1 12-6	Harvest 2 2-25	Harvest 3 3-14	Harvest 4 4-16	Total Yield	3-Year Mean
	----- pounds of dry matter per acre -----					
Maton	345	934	1047	4220	6546	4967
Fayetteville	560	1146	866	3464	6036	--- <sup>a</sup>
Bates	432	1076	901	3431	5840	4490
Elbon	720	846	1035	2870	5471	4178
NF 94	931	1325	1127	1684	5067	---
Oklon	772	1332	721	1818	4643	4145
Mean	627	1110	950	2915	5602	---
LSD (0.10)	393	344	158	401	653	

Planted September 9, 1996. Fertilization: Preplant 500 lb 10-20-20/ac. Topdressed with 50 lb N/ac on October 18, 1996, 50 lb N/ac on January 15, 1997, 300 lb/ac of KMG (22% K<sub>2</sub>O, 11% Mg, and 23% sulfate) on February 10, 50 lb N/ac on February 17, and 25 lb N/ac on March 26.

Herbicide: Glean was applied at the two leaf stage at a rate of 0.3 oz/ac.

<sup>a</sup>Entry not tested over 3-year period.