FIELD DAY REPORT - 1993

Texas A&M University Agricultural Research and Extension Center at Overton

Texas Agricultural Experiment Station
Texas Agricultural Extension Service

Overton, Texas

May 28, 1993

Research Center Technical Report 93-1

RYE FORAGE YIELDS AT OVERTON FOR 1991-92 AND 3 YEAR MEANS

Steve Ward, Jim Crowder, and L. R. Nelson

Background. Rye is an important winter annual forage crop in East Texas. Rye will produce more forage during cold weather than the other small grain 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 1991 the planting date was September 13. 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 December 4, February 7, March 2, March 23, and May 1. The rye forage was approximately 10 inches tall at the first harvest on December 4. The varieties demonstrating best seedling vigor and rapid fall growth were Bonel, Elbon, and Winter King. Several other lines produced similar yields. The second harvest indicated below average winter regrowth. FLA 402 produced a significantly higher yield than all other varieties. On the March 2 harvest, Noble Foundation 14, NF 73, and Elbon all produced yields in excess of 1000 lbs/ac. On the March 23 harvest, the top yield was produced by Maton rye. On the last harvest, the best yield was produced by FLA 402, but little differences are apparent between other entries. For the total season forage yield, the best yield was produced by NF 14, an experimental that is being increased for seed and possible release. Other high yielding varieties were Bonel, FLA 402, Elbon and Maton. 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 experiments 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 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 early spring to late spring, and improve overall forage quality especially during the late spring when rye has become mature.

Table 1. Rye Forage Variety Test at Overton, Texas 1991-92 and 3 year means.

Variety	Harvest Dates 12-4	2-7	3-2	3-23	5-1	Total Yield	3 Yr Means
	pounds dry matter per acre						
Noble Foundation 14*	1772	1129	1048	900	1408	6257	6454
Bonel	1834	1016	935	919	1223	5927	5888
Noble Foundation 73*	1747	1103	1005	723	1217	5795	5844
Fla 402	1173	1780	624	425	1726	5728	4727
Elbon	1819	895	1041	851	1018	5624	5472
Maton	1607	696	963	1185	1084	5535	5615
Winter King	1807	1268	882	459	1117	5533	---[a/]
Noble Foundation 125*	1692	1112	951	662	1069	5486	---
Mean	1681	1125	931	766	1233	5736	
LSD (0.10)	550	325	164	145	401	1144	

Planted September 13, 1991.
Fertilization: Preplant 50 lbs of N, P_2O_5, 100 lbs of K_2O, and 45 lbs of S/ac.
Topdressed: 40 lbs/ac N on January 7, 40 lbs/ac N on February 21, and 30 lbs/ac of N on March 21, applied as ammonium nitrate.

*Experimental, seed not available.

[a/]Variety was not tested over the past 3 years.