

RYE FORAGE YIELDS AT OVERTON FOR 2002-2003 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 2002-2003 study are noted in Table 1. Planting dates were early September normally; and in 2002 the planting date was 13 September. 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 Hege plot harvester at a cutting height of 2 inches on 16 November, 6 January, 11 February, 10 March, 4 April, and 13 May. Rainfall was adequate in the fall and winter; however, moisture was very limiting in March, April and early May. Yields were very good on the first harvest indicating early fall forage production. Higher yielding commercial varieties were Oklon, Wintergrazer 70, Bates, and Maton. In the 2nd harvest on 6 January, the production remained good. Higher yielding commercial varieties were produced by Bates, Wintergrazer 70, and Oklon. On the 11 February harvest, all yields were quite low indicating cold weather limited forage production. In the March harvest, best commercial entry was Elbon closely followed by Oklon, Maton, and other entries. In the 4 April harvest, all entries produced good yields, however, much of this production was stems and of lower quality. Higher yielding varieties were Elbon, Maton, Wintermore, and Oklon. In the 13 May harvest, low yields were produced and little real differences are apparent between entries. For the total season yields, Oklon was closely followed by Bates, Wintergrazer 70, and Maton. The 3-year average yields indicate that of the varieties tested over that period, Maton, Oklon, Elbon, and Bates 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 yields at Overton, Texas for 2002-2003.

Variety	Harvest 1	Harvest 2	Harvest 3	Harvest 4	Harvest 5	Harvest 6	Total DMY	3 Yr Mean	
	Nov. 16	Jan. 6	Feb. 11	Mar. 10	Apr. 4	May 13			
	-----pounds of dry matter per acre-----								
FL Bates Sel.*	2110	1511	580	791	1216	127	6335	--	
Oklon	1506	972	415	1046	2085	57	6080	5123	
NF 28*	1420	1565	423	976	1517	105	6006	--	
SPI Rye*	1365	1149	427	1007	1907	127	5982	--	
Bates	1465	1456	394	935	1620	40	5910	4843	
Wintergrazer 70	1591	1198	364	754	1857	81	5843	--	
Maton	1411	722	253	1028	2249	30	5693	5579	
FPL97P20*	1106	1738	296	1070	1237	176	5622	--	
Wintermore	1417	806	201	951	2168	32	5573	--	
WR 2001*	1278	819	123	1043	2185	47	5493	--	
Elbon	1112	603	174	1182	2319	34	5423	4932	
NF 65*	1256	1131	363	982	1503	96	5331	5331	
NF 1*	1248	1221	193	756	1681	122	5221	4992	
FLNF94 Sel.*	813	891	429	715	1526	103	4475	--	
Wintermaster II	932	22	66	587	1793	236	3636	--	
TX94VT509*	1039	331	69	673	1346	104	3561	--	
TX96UT633*	897	270	204	460	1471	237	3538	--	
TX89-55FW*	743	218	22	463	1599	325	3369	--	
Mean	1261	923	277	856	1738	115	5172	5064	
CV	22	33	57	17	13	83	18		
LSD	252	281	146	134	206	88	873		

Planted on 13 September 2002. Fertilizer: Preplant 91 lb N, P₂O₅ and K₂O/ac. Topdressed with 40 lb N on 12 November, 33 lb N/ac on 21 January. Forty lb/ac of N, P₂O₅ and K₂O on 6 March and 40 lb N/ac on 15 April 2003.

*Experimental line, seed presently not commercially available.