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

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Background. Oats are an important winter annual forage crop in south central Texas. Oats can produce high yields of good quality forage. Oats are susceptible to winterkill, and only the most winterhardy varieties should be planted in northeast Texas. There are significant differences between varieties for winterhardiness and forage distribution during a growing season. Some varieties produce much of their forage yield in the fall, while others produce a more balanced yield throughout the growing season. Growers should be aware of forage yield potential and distribution when selecting which variety they will purchase each fall.

Research Findings. An oat forage variety experiment is conducted annually at Overton. Many available commercial and experimental oat varieties were evaluated during the past 3 years. Fertilizer application rates and dates for 1991-92 are noted on table 1. All tests were planted into a prepared seedbed. Planting dates were early September normally, however, in 1991 the planting date was September 13. Seeding rate was 110 lbs/ac and plot size was 4 x 12 ft. Seed was drilled into the seedbed approximately 1 inch deep. Entire plots were harvested on five dates with a Hege plot harvester at a cutting height of 2 inches. There were 4 replications. Oat forage was approximately 10-inches tall during the first harvest on December 4. The commercial varieties demonstrating best seedling vigor and rapid fall growth were Citation, TAM-O-386, Bob, and Mesquite 2. The experimentals TX 82M4964, and TX 87M1521 also produced high forage yields. The second harvest date was not until February 18, indicating poor winter production. Higher yields were produced by Citation, TAM-O-386, Bob, and Blizzard, followed closely by several other lines. The third harvest was on March 6, with best forage yields produced by H-833, Nora, and Blizzard. The fourth harvest was on March 31, in which the better varieties were Nora and Blizzard. The last harvest was on May 1. There were slight differences between varieties. Although the highest total season forage yield was produced by Citation, its yield was not significantly better than several other lines according to the LSD at the 10% level of probability. Differences in forage yield of less than the LSD (note under each column) may be due to experimental error and should not be considered significant. A three-year mean is presented for those varieties tested over this period. There were large differences between varieties. Experimental NF 170 and 188 produced highest 3 yr yields. Differences in yield between varieties are mainly a result of their winterhardiness.

Application. The data presented in these experiments should be useful in selecting oat varieties for your farm. Depending of variety availability, compare forage yields to determine which variety you want to plant.

Table 1. Oat forage variety test at Overton, Texas 1991-92 and 3 year means.

Variety	Harvest Dates					Total Yield	3 Yr Means
	12-4	2-18	3-6	3-31	5-1		
	pounds dry matter per acre						
Citation	2636	1743	1223	797	1111	7510	---[a]/
Noble Foundation 170	1494	895	1826	1508	1228	6951	7222
TAM-O-386	2243	1747	1226	688	1020	6924	5059
Nora	1894	1141	1460	1061	1305	6861	5746
TX 87B9451*	1871	2271	1068	454	1153	6817	----
Blizzard	1308	1658	1415	1070	1066	6517	----
Bob	2025	1730	1105	587	1020	6467	5521
Noble Foundation 188*	1366	1314	1609	695	1302	6286	6341
TX 82M4964*	2516	1501	712	518	885	6132	----
TX 89B1980*	1856	1732	950	575	896	6009	----
Mesquite 2	2165	1531	988	376	891	5951	----
H-833	1216	1321	1441	696	1139	5813	----
TX 83AB2923*	1592	1061	1199	955	960	5767	----
TX 87M1521*	2469	1276	714	395	709	5563	----
Mean	1904	1494	1210	741	1049	6397	
LSD (0.10)	851	595	255	161	235	1468	

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

*Experimental, seed not available.

[a]/Variety not tested over last 3 years.