

**FORAGE-LIVESTOCK
FIELD DAY REPORT - 1998**

**TEXAS A&M UNIVERSITY AGRICULTURAL
RESEARCH and EXTENSION CENTER
at OVERTON**

**Texas Agricultural Experiment Station
Texas Agricultural Extension Service**



April 16, 1998

Research Center Technical Report 98-1

All programs and information of the Texas Agricultural Experiment Station and Texas Agricultural Extension Service are available to everyone without regard to race, color, religion, sex, age, or national origin.

Mention of trademark or a proprietary product does not constitute a guarantee or a warranty of the product by the Texas Agricultural Experiment Station or Texas Agricultural Extension Service and does not imply its approval to the exclusion of other products that also may be suitable.

OAT FORAGE YIELDS AT OVERTON FOR 1996-97 AND TWO-YEAR MEANS

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

Background. Oats are an important winter 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.

Research Findings. An oat forage variety experiment is conducted annually at Overton. Many available commercial and experimental oat varieties were evaluated during the past 2 years. Fertilizer application rates and dates for 1996-97 are noted in Table 1. All tests were planted into a prepared seedbed. Planting dates were early September normally, however, in 1996 the planting date was 9 September. 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 6 December. The commercial varieties demonstrating best seedling vigor and rapid fall growth were Buckshot HG, Coker 227, and Chapman. The experimentals TX92M1596, TX90D2457, and TX92M1048 also produced high forage yields. The second harvest date was 2 February, indicating little forage production in January. Higher yields were produced by Buckshot HG and Dallas. The third harvest was on 20 March with best forage yields produced by Coker 227, Coker 719 and 833. There were several experimentals which produced similar yields. The fourth harvest was 9 April, however, there were little differences between entries for this harvest date. The last harvest was on 6 May. The best yielding varieties were Dallas, TAMO 397, Nora, and the two Coker lines. Several experimentals also produced high late season forage yields. The highest total season yield was produced by experimentals TX92M1596, TX90D2457 and TX92M1048 and the highest yielding varieties were Buckshot HG, Dallas, Coker 227, Coker 719, and Nora. Differences in forage yields of less than the LSD (note under each column) may be due to experimental error and should not be considered significant. A two-year mean is presented for those varieties tested over this period. There were large differences between varieties. The highest yielding entry was Dallas followed by Buckshot HG, 833, and Ozark. Differences in yield between varieties are often a result of their winterhardiness, however, we have not had any winterkill on oats over the past two years.

Application. The data from these trials should be useful in selecting varieties for your farm. Depending on variety availability, compare forage yields to determine which variety you want to plant.

Table 1. Oat forage variety test at Overton, Texas for 1996-97 and mean yield over 2 years.

Variety	Harvest 1 12-6	Harvest 2 2-27	Harvest 3 3-20	Harvest 4 4-9	Harvest 5 5-6	Total DMY	2-Year Mean
	-----pounds of dry matter per acre-----						
TX92M1596*	1516	809	576	524	1677	5102	--- ^a
Buckshot H.G	1649	1204	682	442	1063	5040	4351
TX90D2457*	1511	1154	670	277	1361	4973	---
TX92M1048*	1490	790	603	410	1480	4773	---
Dallas	862	1019	747	398	1736	4762	4467
Coker 227	1325	771	949	459	1254	4758	---
Coker 719	1082	851	788	572	1432	4725	---
Nora	1661	522	532	439	1515	4669	---
NF 188	1021	994	842	388	1400	4645	---
TX95C3123*	1124	973	690	423	1198	4408	---
TX95B1111*	821	762	697	446	1545	4271	---
TX95C3046*	1398	316	508	603	1439	4264	---
833	890	868	810	433	1232	4233	4288
TX89D7073*	1434	1038	724	200	753	4149	---
811	948	718	757	586	1135	4143	3700
Bob	1065	621	615	446	1319	4066	3711
TX89D7073	1035	1004	653	208	1153	4053	---
NF 55*	1133	819	646	244	1102	3944	---
TAMO 397	1091	230	296	534	1778	3929	2850
TX92M1028*	958	780	675	412	1067	3892	---
Ozark	808	836	741	394	1013	3792	4031
Chapman	1304	762	572	226	899	3762	---
TX95B1213*	813	601	678	299	1240	3631	---
TX95C3222*	1026	522	524	322	1182	3576	---
Mean	1165	790	665	404	1291	4315	
LSD (0.10)	493	241	180	222	449	1175	

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% K₂O, 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.

^aEntry not tested in each of the last 2 years.