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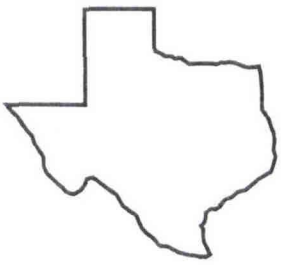

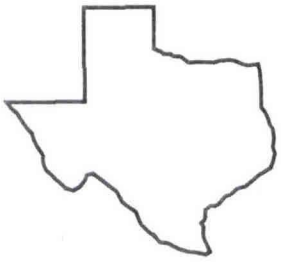

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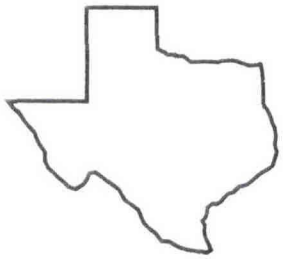

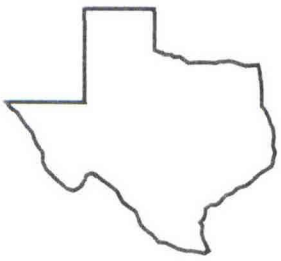

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OAT GRAIN VARIETY TESTS AT MT. PLEASANT FOR 1992-93 AND THREE-YEAR MEAN YIELDS

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

Background. Oat grain variety trials were planted in northeast Texas at Mt. Pleasant. These trials were planted to compare grain yield potential, local adaptation, winterhardiness, and disease resistance of released varieties of winter oats. Oat variety tests were planted on prepared seedbeds. The soil near the Mt. Pleasant site was a poorly drained clay on the Carl Snyder farm. Seeding rate was 90 lbs/ac. A plot was 7 rows with 6 inch row spacing, 10 ft in length. The test was planted on October 9 and harvested on June 4, 1993. Fertility application was 12 lbs of N, 30 lbs P_2O_5, and 39 lbs K_2O/ac applied preplant. The oats were topdressed with 85 lbs/ac of actual N as ammonium nitrate on March 15, 1993.

Research Findings. The 1992-93 growing season was wet in the fall and winter. While these conditions favored disease buildup on wheat, oats were not affected. Grain yields were good at Mt. Pleasant (Table 1). The highest yielding varieties at Mt. Pleasant were Ozark, Nora, H 833, and Buckshot 76-30. TAM-O-386R and TX89D7613 are experimental lines and seed is not available. Yields shown for 1990-91 were much lower than during the next two years. The three year means shown in table 1 indicate the type of oat grain yields that farmers should expect in north Texas. Test weight, average heading date, plant height, and lodging are from the 1993 data. The standard test weight for oats is 32 lbs/bu. In these studies, test weights were near normal. Plant height was above average for all of the varieties. The fairly high N application rate in March may have contributed to the unusually tall plant height. Lodging was quite low for oats on entries with the exception of H 833. Winterkill on oats is a serious problem most years in north Texas. No winterkill occurred in 1992-93. Crown rust on oats in northeast Texas was not observed in this test in 1993.

Application. These data should be useful in determining which varieties have the best potential for grain yield in northeast Texas. Oats are subject to winterkill and only the most winterhardy varieties should be planted. Oat grain and forage yields from other variety trials at the Texas A&M University Agricultural Research and Extension Center at Overton are presented elsewhere in this publication.

Table 1. Uniform oat variety grain test for 1992-93 and 3-yr means at Mt. Pleasant, Texas.

Variety	Year			3 Yr Mean	Test Wt. lbs/bu*	Height (in.)*	Lodging %
	1992-93	91-92	90-91				
TAM-0-386R**	141	-	-	-	31	43	0
Ozark	128	138	-	-	32	44	0
TX89D7613**	125	-	-	-	29	43	5
Nora	115	112	58	95	31	46	0
H 833	114	123	88	108	34	44	15
Buckshot H.F. 76-30	99	-	-	-	29	44	0
TX83Ab2923**	90	-	-	-	24	45	0
Bob	68	122	82	91	27	42	0
Mean	110	124	76	98	30	44	3
LSD (0.05)	30						
CV	16						

Planting date October 9, 1992. Harvest date June 4, 1993.

Fertilizer application rate: Preplant 12 lb N, 30 lb P_2O_5 and 39 lb of K_2O/ac. Topdressed with 85 lb/ac N as ammonium nitrate on March 15, 1993.

Disease ratings were on a scale of 0-9, where 0 = no disease and 9 = dead plants.
*1992-93 data.
**Experimental, seed not available.