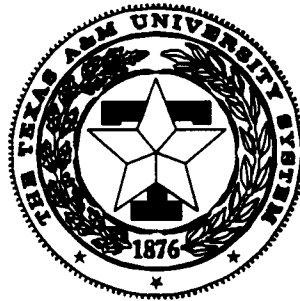


**FORAGE-LIVESTOCK  
FIELD DAY REPORT - 1998**

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

**Texas Agricultural Experiment Station  
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## OAT GRAIN VARIETY TESTS AT OVERTON FOR 1996-97 AND TWO-YEAR MEANS

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**Background.** Oat grain variety trials are planted annually at the TAMU Agricultural Research and Extension Center at Overton. These trials were planted to determine grain yield potential, adaptability, winter hardiness, and disease resistance of released varieties and experimental winter oat lines.

**Research Findings.** Oat varieties were planted on a prepared seedbed. The soil at the Overton site was a well drained sandy loam soil. Seeding rate was 90lbs/ac. A plot was 7 rows wide, with 6 inch row spacing, 10 ft in length. The test was planted on 7 October and harvested on 29 May 1997. Fertility application was 50 lbs N, 100 lbs P<sub>2</sub>O<sub>5</sub> and 100 lbs K<sub>2</sub>O/ac applied preplant. Nitrogen was applied at a rate of 75 lb/ac on 18 February as ammonium nitrate. Glean was applied at the two leaf stage of oats at 0.3 oz/ac. Good grain yields were obtained in this test in 1997 (Table 1). No winter killing occurred during the growing season. The highest yielding variety was Ozark which produced a yield of 115 bu/ac, however, its yield was not significantly different (LSD of 19.5 bu) than other varieties yielding higher than 96 bu/ac. Lower yielding varieties were Nora, 811, and TAMO 397. Several experimental lines also produced high yields, however, seed are presently not available to growers for those lines. For the two year mean, yields were higher than those produced in 1997, indicating a higher yield for 1996. Higher yielding released varieties were Ozark, 833, TAMO 386, Coronado, FLA 501, Big Mac, and Bob.

Test weights were very high for oats in 1997. A standard test weight is 32 lbs/bu. Most entries had tests weights surpassing this standard. Plant heights were somewhat high, however, no lodging occurred. Crown rust is often a problem on oats grown in south Texas, however, crown rust may also be a serious disease in northeast Texas. Disease ratings 4 or higher indicate that line is moderately susceptible to crown rust. Only very low ratings of stem rust were observed on this study in 1997.

**Application.** These data indicate that oats have very good grain yielding potential in northeast Texas. The data also indicates which varieties have best grain yield potential for east Texas. Oats are subject to winterkill and only the most winter hardy varieties should be planted. TAMO 386 should not be planted north of Waco, Texas as winterkill may occur during severe freezes. Oat forage yields are presented elsewhere in this publication.

Table 1. Uniform oat variety test, Overton, Texas 1996-97.

Variety	Yield bu/ac	2 Year Mean	Test Weight lb/bu	Heading Date	Height inches	Crown Rust (0-9)	Stem Rust (0-9)
Ozark	115.3	121	33	4-11	40	3	0
TX93C7236	113.5	-- <sup>a</sup>	33	4-10	45	2	0
TX93D5764	113.5	--	32	4-10	42	4	0
833	109.0	118	34	4-7	41	2	0
TAMO 386	107.1	116	33	4-16	44	1	0
TX93D5800	107.0	--	32	4-10	41	3	0
TX94D081	106.5	--	38	4-8	30	4	0
TX95C3222	106.2	--	35	4-17	42	0	0
Coronado	105.7	107	32	4-10	40	3	0
TX92M1028	104.0	--	31	4-8	39	0	1
TX93D5855	103.7	--	34	4-18	33	1	0
FLA 501	103.1	106	34	4-4	41	2	0
Big Mac	103.0	103	34	4-8	40	1	0
Mitchell	102.3	99	33	4-3	31	2	0
Bob	102.3	104	33	4-7	33	1	0
Buckshot HG76-30	101.4	97	34	4-7	41	5	0
Harrison	101.3	99	33	4-7	37	1	1
TX94D084	100.4	--	34	4-6	35	3	0
TX93D5852	99.7	--	34	4-17	39	2	0
Chapman	99.5	--	32	4-6	32	1	0
TX94D006	98.9	--	38	4-6	38	3	0
TX95B1250	98.2	--	33	4-15	43	0	0
TX83AB2923	97.7	--	32	4-16	40	0	0
TX94D107	97.5	--	32	4-18	34	2	0
TX93AB715	92.4	--	31	4-17	39	0	0
TX92M1048	91.3	--	35	4-15	41	0	0
Nora	89.1	102	31	4-11	37	2	0
TX95B1213	86.9	--	34	4-15	41	0	0
811	86.6	85	33	4-1	37	6	1
TX94D037	85.9	--	36	4-6	37	3	0
TX95B1328	85.8	--	31	4-5	37	0	0
TX95B1033	82.4	--	34	4-7	44	1	0
TX92M1596	82.4	--	29	4-3	36	0	0
TX89B1980	80.8	--	32	4-2	38	1	0
TX95B1111	80.8	--	33	4-17	39	0	0
TX95C3046	79.7	--	32	4-7	39	0	0
TX93C7691	77.2	--	32	4-8	44	0	0
TX94D117	76.8	--	34	4-16	27	0	0
TAMO 397	69.6	--	30	4-2	33	0	0
Mean	95.8	--	33	--	38	2	0
LSD (0.05)	19.5						
CV	12.6						

Planting date October 7, 1996. Harvested: May 29, 1997. Fertilizer application rate: Preplant 500 lb of 10-20-20/ac. Topdressed with 75 lb of N/ac on February 18, 1997. Glean applied at 2-leaf stage at 0.3 oz/ac. Disease ratings were on a scale of 0-9, where 0 = no disease and 9 = dead plants. <sup>a</sup>Not tested over last 2 years.