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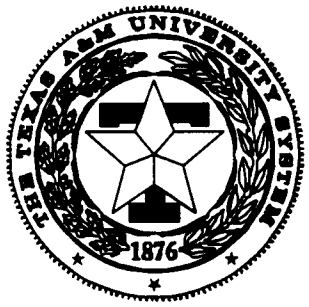

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WHEAT GRAIN VARIETY TESTS AT OVERTON, MT. PLEASANT, AND DEKALB FOR 1996-97 AND THREE-YEAR MEANS

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Background. Wheat grain variety trials are planted annually at the above locations. These trials are planted to determine grain yield potential, adaptation, winter hardiness, and disease resistance of released varieties as well as experimental soft red winter wheat lines. Climatic conditions in East Texas are favorable for several fungal diseases which often attack wheat. Therefore, Overton is an excellent location to evaluate wheat for resistance to leaf rust, powdery mildew, septoria glume blotch, while the other test sites are (in the soft winter wheat growing region) useful to determine grain yield potential. Wheat tests were planted on prepared seedbeds. A preplant fertilizer application according to soil test recommendations was applied at Overton and Mt. Pleasant. No fertilizer was applied at DeKalb. All tests were top-dressed with N at between 60 and 100 pounds N/ac. Tests were harvested near June 1, 1997.

Research Findings. Good stands were obtained at all locations. No winterkill occurred. The major diseases which occurred were leaf rust and septoria glume blotch. The highest yielding variety at Overton was Coker 9134 which produced a yield of 65 bu/ac (Table 1). Varieties with similar yields at Overton were Coker 9663, Morey, and Coker 9803. At Mt. Pleasant the highest yield was produced by Pioneer 2571 with a yield of 96 bu/ac. Other varieties which also produced good yields were Terra SR205, Dozier, Pioneer 2566 and Coker 9543. In the test at DeKalb, the highest yield was produced by Coker 9134 with a yield of 61 bu/ac and it was closely followed by Terra SR211, Jaypee, Pioneer 2684 and Pioneer 2580. For the three location mean, Pioneer 2571 produced the highest yield of 65 bu/ac. Dozier, Coker 9543 and Pioneer 2566 and several other varieties produced similar yields. Three year average yields for DeKalb indicate that high yields that have been obtained during this period. Pioneer 2571 has produced an excellent yield of 71 bu/ac. AgriPro Mallard, Pioneer 2684, and Pioneer 2580 have also produced consistently high yields. Varieties which demonstrated good leaf rust resistance at Overton in 1997 were Coker lines 9134, 9663, 9803, Pioneer 2571, Morey, Jaypee, Fla 304, Mallard, Mason, and Abe. Test weights were were quite low on most varietes. Varieties which had test weights at DeKalb of 57 lb/bu or higher were Jaypee, Pioneer 2684, Hickory, and Coker 9474. All other varieties produced wheat with test weights below 57 lb/bu.

Application. These data should be useful in determining which varieties have best potential for grain yield and disease resistance in northeast Texas. Wheat grain yields were high in 1997 due to the favorable growing conditions in April and May.

Table 1. Northeast Texas soft red winter wheat trials 1996-97 and three-year mean for DeKalb.

Source	Variety	Test Weight Average lbs/bu	Height Inches Avg.	Yield bu/ac			1996 Avg. Yield bu/ac	3 Yr. Avg. Yield bu/ac DeKalb
				Overton	Mt. Pleasant	DeKalb		
Pioneer	2571	56[1]	36	48.3	96.1	51.3	65.2	71.2
Univ. Of Georgia	Dozier	56	31	41.4	69.6	54.1	55.0	-
Novartis	Coker 9543	56	32	50.8	61.9	51.5	54.7	59.9
Pioneer	2566	55	33	44.6	67.7	51.2	54.5	61.2
Terra International	SR205	55	34	37.2	70.2	54.9	54.1	--
Novartis	Coker 9134	55	37	64.5	33.7	60.7	53.0	59.8
Pioneer	2580	55	34	44.2	55.2	55.9	51.8	64.5
Terra	SR211	54	35	37.5	57.0	59.1	51.2	--
AgriPro	Clemens	51	37	47.4	44.4	55.1	49.0	--
Novartis	Coker 9803	58	33	52.1	46.9	46.0	48.3	53.7
Novartis	Coker 9663	56	36	60.1	23.4	53.0	45.5	--
Univ. of Georgia	Morey	55	32	55.8	29.9	49.6	45.1	--
Pioneer	2684	58	33	48.5	29.3	56.5	44.8	63.7
Novartis	Coker 9474	59	34	37.6	44.8	50.7	44.4	--
Univ. of Florida	304	56	38	47.5	35.1	49.3	44.0	--
AgriPro	Mallard	55	33	47.4	31.3	53.4	44.0	65.3
Terra International	SR204	55	35	31.6	47.5	49.7	42.9	--
Virginia Tech	Jackson	53	35	38.8	50.7	39.1	42.9	58.5
Univ. of Arkansas	Jaypee	57	31	51.8	16.8	59.0	42.5	--
Cash River Valley	Dixie 911	55	33	33.2	42.5	47.8	41.2	--
Cash River Valley	Dixie 953	51	32	25.9	55.8	38.7	40.1	--
Novartis	Coker 9835	55	32	50.1	17.4	51.1	39.5	53.6
Purdue	Abe	56	36	27.7	41.6	48.0	39.1	51.4
Virginia Tech	Madison	56	34	48.7	12.8	52.7	38.1	49.0
AgriPro	Hickory	56	35	42.8	19.6	51.1	37.8	49.9
Coker	68-15	56	37	27.9	42.6	42.2	37.6	50.3
Stoneville Seed	FFR-525W	55	34	32.6	31.3	43.4	35.8	--
AgriPro	Mason	56	35	40.1	19.2	47.0	35.4	--
Univ. of Georgia	Stuckey	54	29	41.8	13.1	48.8	34.6	--

[1]Test weight and plant height data are the average for the Overton and DeKalb experiments for each variety.