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WHEAT GRAIN VARIETY TEST FOR 1993-94 AND TWO YEAR MEANS AT MT. PLEASANT

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Background. Wheat grain yield variety performance trials were planted in northeast Texas at DeKalb and Mt. Pleasant. These trials were planted to compare yield potential, local adaptation, and disease resistance of released varieties as well as experimental soft red winter wheat lines. Wheat tests were planted on prepared seedbeds. The soil near the Mt. Pleasant site was a poorly drained clay on the Carl Snyder farm. A 12 inch rain after planting at DeKalb reduced stands and data will not be reported. The test at Mt. Pleasant was planted on October 28, 1993. Harvest was on May 24, 1994. Fertility application at Mt. Pleasant was 14 lbs of N, 35 lbs P₂O₅, and 45 lb of K₂O/ac applied preplant. The wheat was top-dressed with 43 lbs/ac of nitrogen on February 1 and topdressed again on February 28 with 43 lb N/ac applied as liquid fertilizer.

Research Findings. The 1993-94 growing season was fairly wet at Mt. Pleasant and quite warm during the fall and winter. Good stands were obtained at Mt. Pleasant. A dry May reduced buildup of septoria diseases and allowed above average grain yields. Varieties which averaged over 65 bu/ac were Pioneer 2580, Pioneer 2571, Coker 9543, and experimental lines TX82-50-1 and TX89D2148. These were followed closely by several other lines. The highest two year mean yield was produced by Caldwell (80 bu), with several entries producing two year mean yields in excess of 70 bu/ac. Test weight, heading date, plant height, and lodging are from the 1994 test. Test weights were below average for most varieties in 1994. Low test weight is a consistent problem with most wheat grown in East Texas. Entries which produced wheat grain with acceptable test weights in 1994 were Coker 9803, TX85-119, FFR 525, and Coker 68-15. Plant heights were above normal. Leaf rust or powdery mildew were not observed in this experiment in 1994. Plant lodging was not a problem in this test in 1994, however, some lodging did occur. Entries which did lodge may have been taller than desirable or have less than average straw strength.

Application. These data should be useful in determining which varieties have best potential for grain yield in northeast Texas. In selecting varieties, grain yield potential is important, however, test weight should also be considered to avoid dockage when selling grain. Disease rating on these same varieties is shown elsewhere in this publication.

Table 1. Uniform soft wheat elite test for 1993-94 and two year means at Mt. Pleasant, Texas.

Variety	Yield bu/ac	Mean bu/ac	Test Wt. lbs/ac	Heading Date	Height (in)	Lodging %
Pioneer 2580	73.2	--	55	4-7	38	0
Pioneer 2571	72.1	--	51	4-13	39	0
Coker 9543	67.1	70	55	4-13	35	0
TX82-50-1	66.7	--	51	4-17	42	15
TX89D2142	66.0	--	53	4-15	39	0
Caldwell	64.7	80	51	4-13	44	15
Sawyer	63.8	73	54	4-14	37	0
TX82-11	63.2	70	53	4-16	38	15
Coker 9134	63.2	70	56	4-13	39	0
Coker 9835	62.9	61	55	4-14	33	0
Coker 9803	62.8	62	58	4-13	36	0
TX85-119	62.0	--	59	4-16	41	0
Hickory	61.2	--	55	4-9	39	0
Coker 747	60.4	68	57	4-8	38	5
TX84-132-2	60.2	--	52	4-17	36	0
FFR 525	59.5	53	59	4-11	43	0
Mallard	58.4	73	53	4-15	38	10
TX89D2148	58.1	64	55	4-16	39	10
Pioneer 2551	58.1	73	52	4-16	38	0
Pioneer 2548	58.0	74	56	4-14	35	0
Coker 68-15	57.6	60	59	4-11	40	0
Saluda	57.5	63	54	4-14	38	10
Stoneville	56.8	--	55	4-15	38	0
Coker 9024	55.6	69	55	4-14	44	0
GA 100	55.1	--	53	4-9	36	0
Bayless	53.8	--	51	4-9	35	10
Cardinal	53.7	--	56	4-12	42	10
Magnum	50.4	64	55	4-16	42	5
Abe	50.2	60	56	4-16	40	15
Coker 762	49.6	47	49	4-12	36	5
Gore	49.3	44	56	4-9	38	0
FLA 304	49.0	51	55	4-8	39	5
TX89D6435	48.4	61	54	4-7	31	0
TX82-46 (5131-8)	45.0	--	52	4-16	39	5
FLA 302	44.5	58	52	4-12	40	0
Andy	29.7	35	53	4-7	38	5
Mean	57.4		54	--	38	4
CV	13.3					

Planting date: October 28, 1993. Harvest date: May 24, 1994. Fertilizer application rate: Preplant 14 lb N, 35 lb P₂O₅, and 45 lb of K₂O/ac. Topdressed with 43 lb N/ac as liquid fertilizer on February 1, 1994. This test was topdressed again on February 28, 1994 with 43 lb N/ac applied as liquid fertilizer.