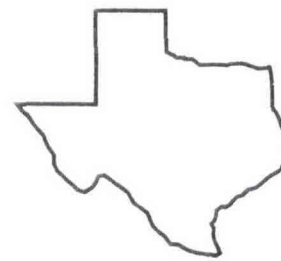
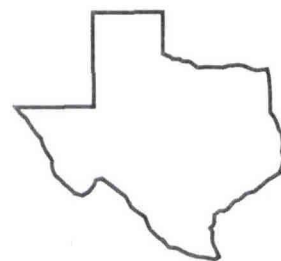
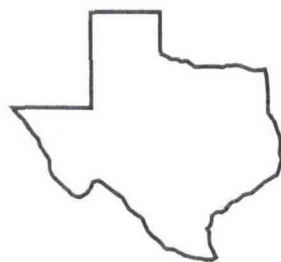
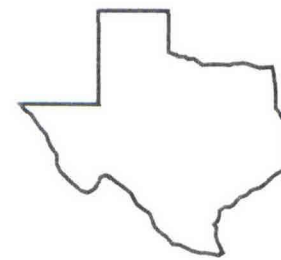




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WHEAT GRAIN VARIETY TESTS AT DEKALB AND MT. PLEASANT FOR 1992-93

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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. The test site near DeKalb was a well drained sandy loam soil on the Chris Moser farm. The tests were planted on October 9 and 23 at Mt. Pleasant and DeKalb, respectively. They were harvested on June 4 and 8 for the above mentioned two sites, respectively. Fertility application at Mt. Pleasant was 12 lbs of N, and 30 lbs P_2O_5 , and 39 lb of K_2O /ac applied preplant. The wheat was top-dressed with 85 lbs/ac of nitrogen as ammonium nitrate on March 15, 1993. At DeKalb, the test site had no preplant fertilizer. This test was top-dressed with 48 lbs N, 18 lb P_2O_5 and 36 lb of K_2O /ac on December 8, 1992.

Research Findings. The 1992-93 growing season was extremely wet and quite warm during the fall and winter. Wet conditions after planting at DeKalb resulted in poor stands, however, good stands were obtained at Mt. Pleasant. A fairly dry period during May resulted in a good growing and grain fill period, which resulted in high grain yields at Mt. Pleasant. Grain yields were above average at Mt. Pleasant but below average at DeKalb (Table 1). Varieties at Mt. Pleasant which averaged over 80 bu/ac were Caldwell, Pioneer 2548, Pioneer 2551, Mallard, Coker 9024, and Sawyer. These were followed closely by several other lines. The higher yielding varieties at DeKalb were Caldwell, Coker 9803, and experimental Tx 85-264. The two location mean yields were reduced by the low yields at DeKalb. Test weight and plant height are a mean from both tests. Lodging, frost damage, bird damage, leaf rust, stem rust, and septoria glume blotch ratings are from the Mt. Pleasant experiment. Test weights were average for most varieties in 1993. Plant heights were about normal. Entries which had a leaf or stem rust rating of 3 or higher were susceptible to these diseases. Septoria glume blotch is a fungus disease which causes the leaves to die and the heads to turn black under wet conditions. Yield losses often occur during years when the diseases are severe. Disease ratings of 5 or above indicate that these entries are quite susceptible and yields losses may occur.

Application. These data should be useful in determining which varieties have best potential for grain yield and disease resistance in northeast Texas.

Table 1. Uniform soft wheat elite test, Mt. Pleasant and DeKalb, Texas 1992-93.

Variety	Yield bu/ac		Two Location Mean	Test Weight lbs/bu*	Height (in) ^a	Lodging %*	Frost Damage %*	Bird Damage %*	Leaf Rust* (0-9) ¹	Stem Rust* (0-9) ¹	Septoria Nodorum* (0-9) ¹
	Mt. Pleasant	DeKalb									
Caldwell	94.0	44.4	69.2	60	39	0	1	0	1	1	2
Pioneer 2548	88.6	34.2	61.4	59	35	0	1	0	2	0	4
Pioneer 2551	88.2	24.0	56.1	58	37	0	1	0	4	0	4
Mallard	86.9	39.2	63.0	60	35	0	1	0	5	2	4
Coker 9024	81.8	24.0	52.9	56	38	0	4	5	0	0	4
Sawyer	81.2	35.1	52.5	57	36	0	1	0	2	3	3
Pioneer 2555	77.4	26.3	51.8	57	35	0	1	0	4	1	4
TX 82-11	76.9	32.5	54.7	55	34	0	1	0	0	1	3
Coker 9134	76.8	37.6	57.2	58	35	0	1	0	1	3	5
Magnum	76.5	37.4	57.0	59	36	0	1	0	2	1	4
Coker 747	75.2	37.5	56.3	60	33	0	1	0	1	0	5
TX89D6435	73.4	29.1	51.2	58	31	0	1	0	0	0	5
Coker 9543	72.0	32.9	52.4	58	33	0	1	0	2	2	4
FLA 302	70.4	33.4	51.9	55	38	0	3	3	0	4	5
Abe	69.8	32.8	51.3	61	40	0	1	0	1	1	4
TX89D2148	69.5	35.3	52.4	58	35	0	1	0	0	1	3
Saluda	67.9	35.7	51.8	59	35	0	1	0	5	1	5
Bradford	64.3	31.1	47.7	58	42	0	1	0	2	1	4
TX 86-106H	61.9	35.3	48.6	57	38	0	1	0	3	2	3
Coker 68-15	61.6	25.7	43.7	59	37	0	1	0	3	0	5
Coker 833	61.5	20.2	40.9	56	36	30	1	0	0	5	2
Coker 9803	61.4	40.6	51.0	60	30	0	1	10	0	5	4
Coker 9835	59.4	32.2	45.8	58	32	0	1	15	0	0	4
FLA 304	53.4	26.8	40.1	57	36	0	2	20	1	0	5
FFR 350	48.9	24.9	36.9	57	35	0	1	5	6	5	3
FFR 525W	45.8	27.7	36.8	59	34	0	1	40	5	2	4
TX85-264	44.9	44.4	44.7	54	35	0	2	65	4	5	5
Coker 762	42.9	34.3	38.6	54	34	0	1	20	0	1	6
Buckshot DS2368	40.3	36.1	38.2	56	35	0	4	60	1	0	6
Andy	39.5	35.9	37.7	56	34	0	5	50	2	0	5
Gore	38.9	32.0	35.5	56	37	0	2	65	1	0	4
AR264138	34.0	35.7	35.0	55	36	0	1	65	1	2	3
Mean	65.2	32.9	48.9	58	34	1	2	13	2	2	4
LSD (0.05)	8.8	13.9									
CV	8.2	25.9									

Planting dates October 9, 1992 (Mt. Pleasant) and October 23, 1992 (DeKalb). Harvest dates June 4 and 8, 1993 at Mt. Pleasant and DeKalb, respectively.

¹Disease ratings were on a scale of 0-9, where 0 = no disease and 9 = dead plants.

*Mean of both locations.

*These data are from Mt. Pleasant.