Wheat and Oat Variety Performance Tests in Tennessee

2010

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Variety test results are posted on UT's website at:

http://varietytrials.tennessee.edu

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General Information

Research and Education Center Tests: The 2010 variety performance tests were conducted on 66 soft, red winter wheat varieties in each of the physiographic regions of the state. Tests were conducted at East TN (Knoxville), Plateau (Crossville), Highland Rim (Springfield), Middle TN (Spring Hill), Milan (Milan), and West TN (Jackson) Research and Education Centers.

All varieties were seeded at rates from 26 - 32 seed per square foot (Table 1). Plots were seeded with drills using 7–7.5 inch row spacings. The plot size was six, seven or ten rows, 25 to 30 feet in length depending on location equipment. Plots were replicated three times at each location. Seed of all varieties were treated with a fungicide.

County Standard Tests: The County Standard Wheat Test was conducted on 20 soft red winter wheat varieties across six counties in West Tennessee (Dyer, Franklin, Gibson, Henry, Lake, and Weakley). Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the overall average yield and in conducting the statistical analysis to determine significant differences. At each location, plots were planted, sprayed, fertilized, and harvested with the equipment used by the cooperating producer in their farming operation. The width and length of strip-plots were different in each county; however, within a location in a county, the strips were trimmed on the ends so that the lengths were the same for each variety, or if the lengths were different then the harvested length was measured for each variety and appropriate harvested area adjustments were made to determine the yield per acre.

Wheat and Oat Silage Tests: In order to evaluate the 2010 wheat and oat varieties for silage yield, duplicate tests with differing randomizations were planted at the Middle Tennessee Research and Education Center. These data will be presented in the UT Extension Silage Tests publication SP618 later this year.

Growing Season: Wet conditions during the fall of 2009 delayed harvesting of summer crops and postponed planting of small grains across much of the state, in some cases as late as mid-December. The winter temperatures were reasonably moderate with some freezing damage to plants at some locations. According to the Tennessee Agricultural Statistics Service (TASS), the crop tolerated the winter in good condition with 75 percent of the crop rated good to excellent in the spring. Record flooding occurred in Middle and Western Tennessee during the first week of May which caused moderate to severe damage to approximately 20 percent of producer fields. Wet and warm conditions April through June caused some foliar and grain disease development. Harvest was aided by hot, dry weather in the latter half of June with most of the crop harvested by the end of that month. Tennessee producers planted approximately 280,000 acres of wheat in the fall of 2009, a reduction of 33 percent from the previous year. Approximately 190,000 acres were harvested for grain in 2010 which is 150,000 acres less than the 2009 harvested acreage of 340,000. The 2010 total wheat production forecast for Tennessee is 10.1 million bushels, down 42 percent from last year. The predicted state average yield for wheat is 56 bu/a.

Interpretation of Data

The tables on the following pages have been prepared with the entries listed in order of performance, the highest-yielding entry being listed first. All yields presented have been adjusted to 13.5% moisture. At the bottom of the tables, **LSD** values stand for **Least Significant Difference**. The mean yields of any two varieties being compared must differ by at least the LSD amount shown to be considered different in yielding ability at the 5% level of probability of significance. For example, given that the LSD for a test is 8.0 bu/a and the mean yield of Variety A was 50 bu/a and the mean yield of Variety B was 55 bu/a, then the two varieties are not statistically different in yield because the difference of 5 bu/a is less than the minimum of 8 bu/a required for them to be significant. Similarly, if the average yield of Variety C was 63 bu/a then it is significantly higher yielding than both Variety B (63 - 55 = 8 bu/a = LSD of 8) and Variety A (63 - 50 = 13 bu/a > LSD of 8).

Also, the **coefficient of variation (C.V.)** values are shown at the bottom of each table. This value is a measure of the error variability found within each experiment. It is the percentage that the square root of error mean square is of the overall test mean yield at that location. For example, a C.V. of 10% indicates that the size of the error variation is about 10% of the size of the test mean. Similarly, a C.V. of 30% indicates that the size of the error variation is nearly one-third as large as the test mean. A goal in conducting each yield test is to keep the C.V. as low as possible, preferably below 20%.

---------- Wheat ----------

Results

Yield and Agronomic Traits: During 2010, 66 wheat varieties were evaluated in six research and education center (REC) tests, and 20 varieties were evaluated in six county standard tests (CST). Eighteen of the twenty varieties in the CST were also present in the REC tests (Table 5). Eleven companies and seven universities entered varieties into the tests this year. The average yield of the 66 varieties in the 2010 REC tests was 64 bu/a (range from 56 to 73 bu/a, Table 2). The varieties ranged in maturity from 211 to 218 days after planting (DAP) with most of the varieties clustering around 214. The test weight values ranged from 53.8 to 58.7 lbs/bu (Table 3). The average yield of the 20 varieties in the county tests was 68.1 bu/a with individual varieties ranging from 64.1 to 73.9 bu/a. The test weight values ranged from 54.2 to 58.0 lbs/bu (Table 4). The former brand name 'AgriPro Coker' has been changed to 'Syngenta' in all appropriate tables.

Table 1. Location information from research and education centers where the wheat variety tests were conducted in 2010.

Research and Education Center	Location	Planting Date	Harvest Date	Seeding Rate	Soil Type
Knoxville	Knoxville	11/4/2009	6/15/2010	28/ft^2	Huntington Silt Loam
Plateau	Crossville	11/5/2009	7/1/2010	28/ft^2	Lilly Silt Loam
Highland Rim	Springfield	11/6/2009	6/21/2010	28/ft^2	Dickson Silt Loam
Middle Tennessee	Spring Hill	11/5/2009	6/17/2010	26/ft^2	Maury Silt Loam
West Tennessee	Jackson	11/6/2009	6/9/2010	28/ft^2	Lexington Silt Loam
Milan	Milan	11/11/2009	6/17/2010	32/ft^2	Loring / Henry Silt Loam

Table 2. Mean yields† of 66 soft red winter wheat varieties evaluated at six locations in Tennessee during 2010.

Brand	Variety	Avg. Yield ± Std Err. (n=6)‡	Knoxville 11/4/09 §	Crossville 11/5/09	Springfield 11/6/09	Spring Hill 11/5/09	Jackson 11/6/09	Milan 11/11/09
		---bu/a---						
USG	3251	73 ± 1	106	61	72	50	70	78
Michigan Crop Improvement	Red Ruby	70 ± 1	94	67	71	49	63	77
Cache River Valley Seed	Dixie 454	70 ± 2	98	58	62	51	80	72
Pioneer	26R22	70 ± 2	103	57	64	57	65	74
Dyna-Gro	9012	70 ± 1	92	77	70	47	63	71
MO	Milton	69 ± 1	114	60	66	45	62	69
TN Exp.	TN 902	69 ± 2	99	60	70	47	64	72
Syngenta (AgriPro Coker)	W1566	68 ± 2	102	64	69	51	50	71
Armor	ARX 9304	68 ± 2	103	61	62	46	64	69
USG	3201	67 ± 1	103	56	68	47	60	72
Terral	TVX8861	67 ± 2	96	51	73	39	66	79
Terral	TVX8581	67 ± 2	100	56	59	42	70	76
Delta Grow	8300	67 ± 2	91	46	57	48	76	84
Syngenta (AgriPro Coker)	W1104	67 ± 2	93	60	69	42	65	71
Syngenta (AgriPro Coker)	Oakes	67 ± 2	104	54	65	39	67	70
USG	3438	67 ± 2	94	49	65	46	70	75
VA Exp.	VA05W-258	67 ± 2	94	64	66	47	57	70
TN Exp.	TN 1001	66 ± 2	100	57	60	49	60	73
USG	3120	66 ± 2	96	57	71	43	60	71
Croplan Genetics	8302	66 ± 2	94	59	59	51	65	69
Pioneer	26R20	66 ± 2	95	54	60	53	59	74
Cache River Valley Seed	Dixie 907	65 ± 1	94	50	68	45	64	71
Croplan Genetics	8925	65 ± 2	100	55	69	38	60	69
Delta Grow	5900	65 ± 1	91	61	59	45	62	73
USG	3770	65 ± 1	93	46	58	46	68	78
Croplan Genetics	8868	65 ± 2	94	62	60	44	58	72
Progeny	117	65 ± 2	97	58	59	38	65	74
Dyna-Gro	9922	65 ± 1	101	51	68	39	58	72
Pioneer	25R32	65 ± 2	92	49	62	51	61	75
Dyna-Gro	Shirley	65 ± 2	92	66	63	43	56	68
USG	3350	65 ± 1	101	42	70	40	64	71
Warren Seed	McKay 100	64 ± 2	95	47	64	44	64	71
Progeny	166	64 ± 1	96	45	64	43	64	73
USG	3555	64 ± 2	86	66	65	39	60	67
GA Exp.	GA-991336-6E9	64 ± 1	101	55	67	37	56	66
USG	3409	63 ± 2	95	57	62	37	53	77
Armor	Renegade	63 ± 2	103	44	70	33	64	66
Syngenta (AgriPro Coker)	SY 9978	63 ± 2	86	56	65	53	56	63

(continued)

Table 2. Mean yields† of 66 soft red winter wheat varieties evaluated at six locations in Tennessee during 2010.

Brand	Variety	Avg. Yield ± Std Err. (n=6)‡	Knoxville 11/4/09 §	Crossville 11/5/09	Springfield 11/6/09	Spring Hill 11/5/09	Jackson 11/6/09	Milan 11/11/09
		---bu/a---						
Terral	TV8558	63 ± 1	92	56	66	33	62	66
Progeny	125	62 ± 2	99	36	59	38	71	71
Progeny	185	62 ± 2	94	49	58	37	66	69
TN Exp.	TN 802	62 ± 1	90	48	65	40	57	72
VA	Merl	62 ± 2	90	48	64	35	64	68
USG	3209	62 ± 2	85	59	64	39	59	64
GA Exp.	GA-001170-7E26	62 ± 2	92	46	62	42	57	70
USG	3665	61 ± 2	88	55	62	32	56	76
Cache River Valley Seed	Dixie 940	61 ± 1	91	46	58	40	62	71
Syngenta (AgriPro Coker)	Branson	61 ± 2	84	51	54	40	66	71
Croplan Genetics	554W	61 ± 2	95	42	63	37	54	74
Dyna-Gro	V9710	60 ± 2	89	53	56	42	54	70
Delta Grow	5000	60 ± 2	93	43	55	34	65	72
GA Exp.	GA-031238-7E34	60 ± 2	92	54	63	31	62	59
Dyna-Gro	V9723	60 ± 1	87	38	59	36	60	77
Terral	LA821	60 ± 2	96	44	57	40	56	65
Pioneer	26R15	60 ± 2	89	43	58	40	60	67
Delta Grow	1600	60 ± 2	85	51	61	37	57	66
NC Exp.	NC04-20814	59 ± 2	89	54	54	32	55	68
Terral	TV8589	59 ± 1	84	46	54	39	57	72
Croplan Genetics	554W (FILL)	59 ± 2	83	44	54	37	63	70
MO	Bess	58 ± 2	98	39	58	38	53	62
NC Exp.	NC05-19684	58 ± 1	94	52	62	36	49	55
Syngenta (AgriPro Coker)	W1377	58 ± 2	93	33	61	31	59	68
MO	Truman	57 ± 1	85	48	57	34	63	58
OH	Malabar	57 ± 1	76	53	54	40	58	62
Cache River Valley Seed	Dixie 427	56 ± 2	85	45	49	36	54	69
VA	Jamestown	56 ± 2	89	43	56	36	49	63
Average (bu/a)		**64**	**94**	**54**	**62**	**41**	**61**	**70**
L.S.D.$_{.05}$ (bu/a)		**4**	**12**	**11**	**8**	**7**	**13**	**7**
C.V. (%)		**8.8**	**7.6**	**11.7**	**7.9**	**10.2**	**11.1**	**6.2**

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

§ Planting date

Table 3. Mean yields† and agronomic characteristics of 66 soft red winter wheat varieties evaluated at six locations in Tennessee during 2010.

Brand	Variety	Avg. Yield ± Std Err. (n=6)‡	Moisture (n=6)	Test Weight# (n=1)	Heading (n=1)	Maturity (n=4)	Height (n=6)	Lodging (n=4)	Protein* (n=1)	Septoria Leaf Blight (n=2)	Head Scab (n=1)
		bu/a	%	lbs/bu	DAP	DAP	in.	Score	%	Score	Score
USG	3251	73 ± 1	13.3	55.9	176	215	33	1.1	10.9	2.2	2.0
Michigan Crop Improvement	Red Ruby	70 ± 1	12.8	55.3	176	214	33	1.0	10.7	2.2	1.7
Cache River Valley Seed	Dixie 454	70 ± 2	13.4	58.6	176	216	33	1.1	11.5	2.7	1.3
Pioneer	26R22	70 ± 2	12.6	54.6	174	213	33	1.1	10.0	2.7	1.7
Dyna-Gro	9012	70 ± 1	13.6	57.0	178	213	31	1.1	11.2	3.0	2.0
MO	Milton	69 ± 1	13.3	56.6	177	213	33	1.1	12.1	2.8	2.0
TN Exp.	TN 902	69 ± 2	13.2	55.9	176	212	34	1.1	10.7	3.0	2.3
Syngenta (AgriPro Coker)	W1566	68 ± 2	13.3	54.7	180	214	35	1.1	10.5	3.3	2.0
Armor	ARX 9304	68 ± 2	13.0	54.4	181	212	29	1.1	10.8	2.7	2.0
USG	3201	67 ± 1	13.4	57.6	177	213	31	1.0	11.5	2.7	1.0
Terral	TVX8861	67 ± 2	13.7	57.0	175	216	31	1.1	10.7	2.3	2.3
Terral	TVX8581	67 ± 2	13.4	57.4	174	214	34	1.0	10.2	3.5	2.7
Delta Grow	8300	67 ± 2	13.2	55.7	178	214	32	1.1	10.9	2.3	2.3
Syngenta (AgriPro Coker)	W1104	67 ± 2	13.2	54.2	182	214	32	1.0	10.6	2.7	1.7
Syngenta (AgriPro Coker)	Oakes	67 ± 2	14.4	58.2	177	214	31	1.0	10.6	2.8	2.0
USG	3438	67 ± 2	12.7	53.8	175	212	30	1.0	10.9	2.7	3.0
VA Exp.	VA05W-258	67 ± 2	13.5	55.9	180	213	34	1.1	10.8	3.0	2.0
TN Exp.	TN 1001	66 ± 2	12.7	57.2	175	212	34	1.1	10.9	3.8	3.7
USG	3120	66 ± 2	13.1	57.8	174	214	34	1.1	10.9	3.2	2.7
Croplan Genetics	8302	66 ± 2	13.2	57.0	178	213	33	1.1	10.9	3.0	2.7
Pioneer	26R20	66 ± 2	12.8	56.2	181	214	33	1.0	10.3	2.7	2.0
Cache River Valley Seed	Dixie 907	65 ± 1	13.4	56.0	177	214	36	1.1	10.4	2.0	2.0
Croplan Genetics	8925	65 ± 2	12.9	57.6	181	216	33	1.0	10.6	2.3	2.0
Delta Grow	5900	65 ± 1	13.6	58.7	178	213	33	1.1	10.5	3.2	2.0
USG	3770	65 ± 1	13.2	57.4	174	214	34	1.0	10.4	4.2	2.0
Croplan Genetics	8868	65 ± 2	12.9	55.8	177	212	33	1.0	10.7	3.0	2.0
Progeny	117	65 ± 2	13.6	57.3	176	214	33	1.0	10.4	3.2	1.7
Dyna-Gro	9922	65 ± 1	12.9	56.8	181	216	34	1.1	10.3	2.7	2.3
Pioneer	25R32	65 ± 2	13.0	55.2	180	215	33	1.1	11.0	2.2	1.3
Dyna-Gro	Shirley	65 ± 2	13.0	55.4	181	215	30	1.1	11.1	2.3	2.7
USG	3350	65 ± 1	13.5	56.7	176	214	37	1.1	10.6	3.2	2.3
Warren Seed	McKay 100	64 ± 2	13.3	56.5	176	212	35	1.1	10.8	2.8	1.7
Progeny	166	64 ± 1	13.1	56.7	176	215	36	1.1	10.6	3.0	2.0
USG	3555	64 ± 2	13.5	55.6	176	214	29	1.1	12.0	2.3	1.7
GA Exp.	GA-991336-6E9	64 ± 1	13.2	58.1	175	216	33	1.0	12.0	2.7	1.7
USG	3409	63 ± 2	13.1	55.5	177	214	33	1.1	10.9	3.2	2.3
Armor	Renegade	63 ± 2	13.4	57.2	181	216	32	1.1	10.1	2.3	2.0
Syngenta (AgriPro Coker)	SY 9978	63 ± 2	13.1	55.2	176	213	34	1.1	10.3	3.2	2.7

(continued)

Table 3. Mean yields† and agronomic characteristics of 66 soft red winter wheat varieties evaluated at six locations in Tennessee during 2010.

Brand	Variety	Avg. Yield ± Std Err. (n=6)‡	Moisture (n=6)	Test Weight# (n=1)	Heading (n=1)	Maturity (n=4)	Height (n=6)	Lodging (n=4)	Protein* (n=1)	Septoria Leaf Blight (n=2)	Head Scab (n=1)
		bu/a	%	lbs/bu	DAP	DAP	in.	Score	%	Score	Score
Terral	TV8558	63 ± 1	12.6	55.0	177	212	33	1.1	10.7	3.3	2.0
Progeny	125	62 ± 2	12.4	54.9	177	211	29	1.0	10.7	4.2	2.7
Progeny	185	62 ± 2	12.8	56.2	176	216	32	1.1	10.6	3.0	2.0
TN Exp.	TN 802	62 ± 1	12.9	55.1	176	212	34	1.1	10.1	3.3	3.0
VA	Merl	62 ± 2	13.1	57.0	177	214	31	1.1	11.0	2.7	2.0
USG	3209	62 ± 2	13.6	54.9	178	214	30	1.1	10.8	2.7	2.3
GA Exp.	GA-001170-7E26	62 ± 2	12.9	58.5	176	214	32	1.0	11.4	2.3	2.0
USG	3665	61 ± 2	12.9	55.3	176	214	34	1.1	11.3	2.7	2.0
Cache River Valley Seed	Dixie 940	61 ± 1	13.0	55.9	176	213	35	1.0	10.1	3.3	2.3
Syngenta (AgriPro Coker)	Branson	61 ± 2	13.4	55.1	176	212	31	1.0	11.1	3.5	3.3
Croplan Genetics	554W	61 ± 2	13.0	56.1	180	214	31	1.1	11.1	3.0	2.0
Dyna-Gro	V9710	60 ± 2	12.7	55.8	178	211	29	1.0	11.3	3.5	2.3
Delta Grow	5000	60 ± 2	12.7	54.6	175	211	30	1.0	10.7	3.8	2.7
GA Exp.	GA-031238-7E34	60 ± 2	11.8	56.4	180	217	27	1.0	11.3	2.7	2.0
Dyna-Gro	V9723	60 ± 1	12.6	55.5	176	213	35	1.1	10.2	3.3	2.0
Terral	LA821	60 ± 2	13.3	57.1	176	215	35	1.0	11.3	3.7	3.0
Pioneer	26R15	60 ± 2	12.9	54.2	178	214	31	1.0	12.0	3.0	3.0
Delta Grow	1600	60 ± 2	12.4	55.2	177	213	33	1.1	10.8	2.8	2.3
NC Exp.	NC04-20814	59 ± 2	13.0	56.6	178	215	31	1.0	11.5	2.8	2.0
Terral	TV8589	59 ± 1	12.3	56.4	176	217	35	1.0	10.9	3.0	2.0
Croplan Genetics	554W (FILL)	59 ± 2	12.4	56.0	178	214	30	1.0	11.1	3.2	2.3
MO	Bess	58 ± 2	13.5	56.9	176	212	33	1.1	10.7	2.5	1.7
NC Exp.	NC05-19684	58 ± 1	13.3	57.5	178	216	29	1.1	11.9	2.5	2.0
Syngenta (AgriPro Coker)	W1377	58 ± 2	13.2	58.2	180	215	33	1.0	10.3	2.3	2.0
MO	Truman	57 ± 1	14.0	55.1	186	218	36	1.1	10.4	1.9	1.0
OH	Malabar	57 ± 1	13.9	55.6	186	217	38	1.0	10.9	2.3	1.0
Cache River Valley Seed	Dixie 427	56 ± 2	12.9	54.2	176	212	32	1.1	10.8	3.7	2.0
VA	Jamestown	56 ± 2	12.9	57.6	174	212	30	1.1	11.7	3.5	3.0
	Average	**64**	**13.1**	**56.2**	**177**	**214**	**33**	**1.1**	**10.9**	**2.9**	**2.1**

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

Official test weight of No. 2 wheat = 58 lbs/bu.

* Protein on dry weight basis.

Maturity (DAP) = Days after planting

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Septoria Leaf Blight, Head Scab = 1 to 5 scale; where 1 = no disease; 2.5 = ~50% plant tissue diseased; 5 = 95+% of plant tissue diseased.

Septoria Leaf Blight and Head Scab disease ratings taken at the Highland Rim (Springfield, TN) and West Tennessee (Jackson, TN) Research & Education Centers in 2010.

Table 4. Yields† of 20 soft red winter wheat varieties evaluated in six County Standard Tests in Tennessee during 2010.

MS	Brand/Variety	Avg. Yield	Moisture	Test Weight‡	Dyer	Franklin	Gibson	Henry	Lake	Weakley
		bu/a	%	lbs/bu	*11/12§*	*11/20*	*11/8*	*11/5*	*11/14*	*10/20*
A	USG 3201	73.9	11.4	58.0	72.3	65.6	80.1	66.8	84.6	74.1
AB	Pioneer 26R22	73.1	10.8	54.8	64.8	63.0	73.3	68.5	87.9	81.0
ABC	Syngenta (AgriPro Coker) Oakes	70.7	11.7	55.0	69.6	58.2	72.2	71.5	78.6	73.9
ABC	*Progeny 117	70.6	11.4	56.5	65.0	61.5	77.2	60.0	78.6	81.5
ABCD	*****Croplan 8302	70.3	10.9	55.7	66.5	57.8	73.0	62.2	80.8	81.6
ABCD	Syngenta (AgriPro Coker) W1104	70.2	10.7	54.3	70.6	54.5	75.7	61.1	81.5	77.7
BCDE	Warren Seed McKay 100	69.1	11.3	56.7	61.2	57.9	81.6	59.0	79.7	75.1
BCDEF	Pioneer 26R20	68.5	10.6	56.3	68.3	54.8	69.2	63.3	80.4	75.4
CDEF	***Pioneer 26R15	68.3	10.8	56.0	70.6	54.7	76.4	56.2	71.7	80.3
CDEF	CRV/Dixie 940	68.3	11.0	55.0	65.2	61.9	74.3	58.8	76.5	72.8
CDEF	Dyna-Gro V9510	67.9	10.3	55.2	62.5	58.7	77.0	61.3	76.9	71.0
CDEF	USG 3452	67.4	10.7	54.2	64.4	54.5	76.1	56.9	77.3	75.3
CDEF	Croplan 8868	67.3	10.8	54.7	65.2	49.7	71.7	66.1	77.7	73.3
CDEF	CRV/Dixie 454	66.2	11.4	57.3	63.1	55.5	68.7	58.0	80.3	71.9
CDEF	Progeny 185	66.2	11.2	56.8	63.0	57.4	72.1	59.3	77.2	67.9
DEF	Armor Renegade	65.7	10.9	57.0	65.6	53.4	76.3	58.3	67.4	73.0
EF	USG 3555	65.4	11.1	55.7	62.0	51.7	62.5	61.8	83.2	71.2
EF	Dyna-Gro 9922	64.7	11.0	57.2	66.3	46.6	73.5	61.1	67.3	73.4
F	*Dyna-Gro V9710	64.3	10.9	55.2	66.3	60.8	69.9	57.2	64.7	67.0
F	**Syngenta (AgriPro Coker) Branson	64.1	11.2	55.0	57.4	58.9	73.8	51.1	69.1	74.4
	Average	**68.1**	**11.0**	**55.8**	**65.5**	**56.9**	**73.7**	**60.9**	**77.1**	**74.6**

† Yields have been adjusted to 13.5% moisture. Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

‡ Official test weight of No. 2 wheat = 58 lbs/bu. - average of 6 locations

MS = Varieties that have any MS letter in common are not statistically different in yield at the 5% level of probability.

Varieties denoted with an asterisk (*), (**), (***), (****), or (*****) were in the top performing group in 2009, 2008, 2007, 2006 and/or 2005, respectively.. (Yields from freeze damaged 2007 crop not used to qualify for asterisk)

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and extension agents in counties shown above.

§ Planting date

Table 5. Yields† , moistures, and test weights of 18 soft red winter wheat varieties that were in common to both the County Standard (CST) Tests (n=6) and the Research and Education Center (REC) Tests (n=6) in Tennessee during 2010.

		Averages of CST & REC Tests			County Standard Tests			R E C Tests		
Brand	Variety	Avg. Yield	Moisture	Test Weight‡	Avg. Yield	Moisture	Test Weight	Avg. Yield	Moisture	Test Weight
					bu/a	%	lbs/bu	bu/a	%	lbs/bu
Pioneer	26R22	72	11.7	54.7	73	10.8	54.8	70	12.6	54.6
USG	3201	70	12.4	57.8	74	11.4	58.0	67	13.4	57.6
Syngenta (AgriPro Coker)	Oakes	69	13.1	56.6	71	11.7	55.0	67	14.4	58.2
Syngenta (AgriPro Coker)	W1104	69	11.9	54.3	70	10.7	54.3	67	13.2	54.2
Croplan Genetics	8302	68	12.0	56.4	70	10.9	55.7	66	13.2	57.0
Cache River Valley Seed	Dixie 454	68	12.4	58.0	66	11.4	57.3	70	13.4	58.6
Progeny	117	68	12.5	56.9	71	11.4	56.5	65	13.6	57.3
Pioneer	26R20	67	11.7	56.3	69	10.6	56.3	66	12.8	56.2
Warren Seed	McKay 100	67	12.3	56.6	69	11.3	56.7	64	13.3	56.5
Croplan Genetics	8868	66	11.9	55.2	67	10.8	54.7	65	12.9	55.8
Dyna-Gro	9922	65	12.0	57.0	65	11.0	57.2	65	12.9	56.8
USG	3555	65	12.3	55.7	65	11.1	55.7	64	13.5	55.6
Cache River Valley Seed	Dixie 940	65	12.0	55.4	68	11.0	55.0	61	13.0	55.9
Armor	Renegade	64	12.1	57.1	66	10.9	57.0	63	13.4	57.2
Pioneer	26R15	64	11.8	55.1	68	10.8	56.0	60	12.9	54.2
Progeny	185	64	12.0	56.5	66	11.2	56.8	62	12.8	56.2
Syngenta (AgriPro Coker)	Branson	63	12.3	55.1	64	11.2	55.0	61	13.4	55.1
Dyna-Gro	V9710	62	11.8	55.5	64	10.9	55.2	60	12.7	55.8
Average		**66**	**12.1**	**56.1**	**68**	**11.1**	**56.0**	**65**	**13.2**	**56.3**

† All yields are adjusted to 13.5% moisture.

‡ Official test weight of No. 2 wheat = 58 lbs/bu.

Table 6. Mean yields† of 37 soft red winter wheat varieties evaluated at six locations (n=12) in Tennessee for two years, 2009 and 2010.

Brand	Variety	Avg. Yield ± Std Err. (n=12)‡	Knoxville	Crossville	Springfield	Spring Hill	Jackson	Milan
					bu/a			
Pioneer	26R22	70 ± 1	102	66	60	47	78	68
Cache River Valley Seed	Dixie 454	69 ± 1	97	65	63	47	85	59
Croplan Genetics	8302	69 ± 1	96	67	61	47	79	65
Dyna-Gro	Shirley	69 ± 1	103	66	64	44	77	61
Michigan Crop Improvement	Red Ruby	69 ± 1	92	72	63	43	75	66
MO	Milton	68 ± 1	104	67	61	43	73	60
USG	3120	67 ± 1	100	63	65	40	73	62
Pioneer	26R20	67 ± 1	90	66	58	49	73	65
Pioneer	25R32	66 ± 1	92	63	56	48	75	64
Dyna-Gro	9922	66 ± 1	99	54	67	37	75	64
Progeny	117	65 ± 1	96	62	57	41	73	65
USG	3770	65 ± 1	96	57	56	41	74	67
Pioneer	26R15	64 ± 1	95	58	57	35	79	62
Warren Seed	McKay 100	64 ± 1	91	55	58	39	78	63
Armor	Renegade	64 ± 1	99	49	66	35	76	58
Cache River Valley Seed	Dixie 940	64 ± 1	97	55	57	38	72	62
Croplan Genetics	8868	63 ± 1	90	66	54	41	75	55
USG	3555	63 ± 1	94	67	59	36	73	50
GA Exp.	GA-991336-6E	63 ± 1	91	55	62	35	72	62
Progeny	166	63 ± 1	94	43	58	41	76	64
USG	3409	62 ± 1	89	66	55	35	68	61
Croplan Genetics	554W	62 ± 1	95	53	60	32	72	59
VA	Merl	62 ± 1	95	53	58	33	71	61
Progeny	185	62 ± 1	102	45	55	31	74	63
Syngenta (AgriPro Coker)	Oakes	62 ± 1	99	47	63	34	73	52
Dyna-Gro	V9710	61 ± 1	93	54	54	38	69	61
Dyna-Gro	V9723	61 ± 1	98	48	57	36	65	64
Syngenta (AgriPro Coker)	Branson	61 ± 1	98	47	56	33	68	62
TN Exp.	TN 802	61 ± 1	86	54	57	35	69	62
Delta Grow	1600	60 ± 1	84	52	55	37	73	58
USG	3665	60 ± 1	83	67	52	32	69	55
MO	Bess	59 ± 1	95	48	57	36	68	53
USG	3209	59 ± 1	80	51	58	35	73	60
Cache River Valley Seed	Dixie 427	59 ± 1	84	54	47	32	69	65
MO	Truman	58 ± 1	87	52	60	30	74	48
Syngenta (AgriPro Coker)	W1377	57 ± 1	80	40	56	37	70	57
VA	Jamestown	56 ± 1	88	41	54	34	63	57
Average (bu/a)		**63**	**93**	**57**	**58**	**38**	**73**	**60**
L.S.D.$_{.05}$ (bu/a)		**4**	**10**	**11**	**7**	**8**	**10**	**8**
C.V. (%)		**9.8**	**7.8**	**13.1**	**7.9**	**13.7**	**8.9**	**9.4**

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

Table 7. Mean yields† and agronomic characteristics of 37 soft red winter wheat varieties evaluated at six locations (n=12) in Tennessee for two years, 2009 and 2010.

Brand	Variety	Avg. Yield ± Std Err. (n=12)‡	Moisture (n=12)	Test Weight§ (n=2)	Heading (n=1)	Maturity (n=9)	Height (n=12)	Lodging (n=7)	Protein (n=2)	Septoria Leaf Blight (n=2)	Head Scab (n=1)
		bu/a	%	lbs/bu	DAP	DAP	in.	Score	%	Score	Score
Pioneer	26R22	70 ± 1	13.3	54.2	174	219	34	1.2	10.9	2.7	1.7
Cache River Valley Seed	Dixie 454	69 ± 1	14.0	57.2	176	221	34	1.3	12.2	2.7	1.3
Croplan Genetics	8302	69 ± 1	13.7	55.0	178	219	34	1.2	11.5	3.0	2.7
Dyna-Gro	Shirley	69 ± 1	13.3	54.0	181	220	31	1.1	11.3	2.3	2.7
Michigan Crop Improvement	Red Ruby	69 ± 1	13.2	52.9	176	220	34	1.1	11.6	2.2	1.7
MO	Milton	68 ± 1	13.6	55.5	177	219	35	1.3	12.4	2.8	2.0
USG	3120	67 ± 1	13.6	56.6	174	220	35	1.3	11.5	3.2	2.7
Pioneer	26R20	67 ± 1	13.3	55.0	181	220	33	1.3	11.0	2.7	2.0
Pioneer	25R32	66 ± 1	13.5	54.7	180	220	33	1.4	11.6	2.2	1.3
Dyna-Gro	9922	66 ± 1	13.6	54.5	181	221	34	1.1	10.8	2.7	2.3
Progeny	117	65 ± 1	14.0	55.6	176	219	34	1.2	11.2	3.2	1.7
USG	3770	65 ± 1	13.7	55.9	174	219	35	1.4	11.0	4.2	2.0
Pioneer	26R15	64 ± 1	13.3	52.9	178	220	33	1.1	12.4	3.0	3.0
Warren Seed	McKay 100	64 ± 1	13.5	53.4	176	219	36	1.1	11.1	2.8	1.7
Armor	Renegade	64 ± 1	13.7	55.6	181	221	33	1.0	10.5	2.3	2.0
Cache River Valley Seed	Dixie 940	64 ± 1	13.3	54.3	176	219	36	1.1	10.7	3.3	2.3
Croplan Genetics	8868	63 ± 1	13.3	54.2	177	218	34	1.1	11.7	3.0	2.0
USG	3555	63 ± 1	13.7	54.9	176	220	30	1.1	12.3	2.3	1.7
GA Exp.	GA-991336-6E9	63 ± 1	13.9	56.5	175	221	34	1.4	12.6	2.7	1.7
Progeny	166	63 ± 1	13.7	54.7	176	220	36	1.1	11.0	3.0	2.0
USG	3409	62 ± 1	13.4	54.2	177	219	34	1.2	11.8	3.2	2.3
Croplan Genetics	554W	62 ± 1	13.3	54.7	180	219	32	1.1	11.5	3.0	2.0
VA	Merl	62 ± 1	13.5	56.2	177	220	32	1.1	11.5	2.7	2.0
Progeny	185	62 ± 1	13.4	54.7	176	221	33	1.3	11.1	3.0	2.0
Syngenta (AgriPro Coker)	Oakes	62 ± 1	14.9	56.8	177	220	32	1.2	11.4	2.8	2.0
Dyna-Gro	V9710	61 ± 1	13.3	54.9	178	217	30	1.0	12.4	3.5	2.3
Dyna-Gro	V9723	61 ± 1	13.3	54.6	176	219	36	1.3	11.0	3.3	2.0
Syngenta (AgriPro Coker)	Branson	61 ± 1	14.0	54.5	176	219	32	1.1	11.1	3.5	3.3
TN Exp.	TN 802	61 ± 1	13.4	54.7	176	218	35	1.5	11.2	3.3	3.0
Delta Grow	1600	60 ± 1	13.1	52.3	177	219	35	1.1	11.1	2.8	2.3
USG	3665	60 ± 1	13.1	53.7	176	220	35	1.3	12.2	2.7	2.0
MO	Bess	59 ± 1	13.8	55.5	176	219	35	1.3	11.6	2.5	1.7
USG	3209	59 ± 1	13.9	53.1	178	219	31	1.5	11.3	2.7	2.3
Cache River Valley Seed	Dixie 427	59 ± 1	13.3	52.2	176	218	33	1.5	11.5	3.7	2.0
MO	Truman	58 ± 1	14.4	53.8	186	223	37	1.2	11.2	1.9	1.0
Syngenta (AgriPro Coker)	W1377	57 ± 1	14.1	56.5	180	220	34	1.4	11.5	2.3	2.0
VA	Jamestown	56 ± 1	13.3	56.9	174	218	31	1.1	12.1	3.5	3.0
	Average	**63**	**13.6**	**54.8**	**177**	**219**	**34**	**1.2**	**11.5**	**2.9**	**2.1**

† All yields are adjusted to 13.5% moisture. ‡ n = number of environments § Official test weight of No. 2 wheat = 58 lbs/bu. * Protein on a dry weight basis.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Septoria Leaf Blight, Head Scab = 1 to 5 scale; where 1 = no disease; 2.5 = ~50% plant tissue diseased; 5 = 95+% of plant tissue diseased. Maturity (DAP) = Days after planting

Septoria Leaf Blight and Head Scab disease ratings taken at the Highland Rim (Springfield, TN) and West Tennessee (Jackson, TN) Research & Education Centers in 2010.

Table 8. Mean yields† of 25 soft red winter wheat varieties evaluated at six locations (n=18) in Tennessee for three years, 2008 - 2010.

Brand	Variety	Avg. Yield ± Std Err. (n=18)‡	Knoxville	Crossville	Springfield	Spring Hill	Jackson	Milan
		----------	----------	----------	bu/a	----------	----------	----------
Dyna-Gro	Shirley	69 ± 1	88	74	58	48	76	70
Michigan Crop Improvement	Red Ruby	69 ± 1	86	76	57	47	74	72
Pioneer	26R22	68 ± 1	91	64	52	49	81	74
Croplan Genetics	8302	68 ± 1	86	68	54	53	77	69
Cache River Valley Seed	Dixie 454	67 ± 1	80	70	57	52	80	66
MO	Milton	67 ± 1	92	69	53	46	73	70
USG	3555	66 ± 1	85	72	54	48	74	62
Pioneer	26R15	65 ± 1	87	63	50	43	78	69
Progeny	117	64 ± 1	79	65	50	49	71	72
Croplan Genetics	8868	64 ± 1	80	68	47	52	73	65
TN Exp.	TN 802	62 ± 1	73	61	50	48	72	70
Warren Seed	McKay 100	62 ± 1	75	58	49	46	76	68
USG	3665	62 ± 1	73	71	48	41	71	67
Progeny	185	61 ± 1	84	54	49	41	71	69
Croplan Genetics	554W	61 ± 1	78	62	50	41	73	63
Delta Grow	1600	61 ± 1	75	61	50	44	71	66
Syngenta (AgriPro Coker)	Branson	61 ± 1	83	53	48	44	65	71
Progeny	166	61 ± 1	78	53	49	45	71	69
USG	3209	61 ± 1	72	60	53	43	69	66
Cache River Valley Seed	Dixie 427	60 ± 1	74	60	43	43	70	73
VA	Jamestown	60 ± 1	79	54	49	46	66	68
Dyna-Gro	V9710	60 ± 1	79	60	45	44	68	65
MO	Bess	59 ± 1	78	56	48	42	69	61
Syngenta (AgriPro Coker)	W1377	58 ± 1	72	49	50	43	69	66
MO	Truman	57 ± 1	72	59	52	35	68	55
Average (bu/a)		**63**	**80**	**62**	**51**	**45**	**72**	**67**
L.S.D.$_{.05}$ (bu/a)		**4**	**11**	**10**	**8**	**9**	**9**	**9**
C.V. (%)		**10.5**	**9.4**	**11.2**	**11.3**	**14.9**	**8.6**	**9.3**

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

Table 9. Mean yields† and agronomic characteristics of 25 soft red winter wheat varieties evaluated at six locations (n=18) for three years, 2008 - 2010.

Brand	Variety	Avg. Yield ± Std Err. (n=18)‡	Moisture (n=18)	Test Weight§ (n=4)	Heading (n=1)	Maturity (n=12)	Height (n=18)	Lodging (n=9)	Protein (n=2)	Take All Disease (n=1)	Septoria Leaf Blight (n=2)	Head Scab (n=1)
		bu/a	%	lbs/bu	DAP	DAP	in.	Score	%	Score	Score	Score
Dyna-Gro	Shirley	69 ± 1	13.4	54.1	181	223	31	1.1	11.3	1.5	2.3	2.7
Michigan Crop Improvement	Red Ruby	69 ± 1	13.2	54.6	176	223	34	1.1	11.6	1.2	2.2	1.7
Pioneer	26R22	68 ± 1	13.4	54.9	174	221	34	1.3	10.9	1.0	2.7	1.7
Croplan Genetics	8302	68 ± 1	13.7	55.9	178	222	34	1.1	11.5	1.2	3.0	2.7
Cache River Valley Seed	Dixie 454	67 ± 1	13.9	57.2	176	224	34	1.2	12.2	2.2	2.7	1.3
MO	Milton	67 ± 1	13.6	56.3	177	222	35	1.2	12.4	1.5	2.8	2.0
USG	3555	66 ± 1	13.8	55.7	176	222	30	1.2	12.3	1.3	2.3	1.7
Pioneer	26R15	65 ± 1	13.3	54.2	178	223	33	1.1	12.4	1.0	3.0	3.0
Progeny	117	64 ± 1	13.9	55.8	176	221	35	1.2	11.2	1.5	3.2	1.7
Croplan Genetics	8868	64 ± 1	13.3	55.5	177	221	34	1.1	11.7	1.8	3.0	2.0
TN Exp.	TN 802	62 ± 1	13.6	55.3	176	221	36	1.5	11.2	1.2	3.3	3.0
Warren Seed	McKay 100	62 ± 1	13.6	54.3	176	221	36	1.1	11.1	2.2	2.8	1.7
USG	3665	62 ± 1	13.3	54.9	176	222	35	1.2	12.2	1.5	2.7	2.0
Progeny	185	61 ± 1	13.5	55.3	176	223	33	1.2	11.1	1.5	3.0	2.0
Croplan Genetics	554W	61 ± 1	13.3	55.0	180	222	32	1.1	11.5	2.3	3.0	2.0
Delta Grow	1600	61 ± 1	13.3	54.1	177	222	34	1.1	11.1	1.5	2.8	2.3
Syngenta (AgriPro Coker)	Branson	61 ± 1	14.0	54.6	176	221	32	1.1	11.1	2.2	3.5	3.3
Progeny	166	61 ± 1	13.8	54.9	176	222	37	1.1	11.0	1.7	3.0	2.0
USG	3209	61 ± 1	14.0	54.0	178	222	31	1.5	11.3	2.8	2.7	2.3
Cache River Valley Seed	Dixie 427	60 ± 1	13.6	53.2	176	221	33	1.4	11.5	1.3	3.7	2.0
VA	Jamestown	60 ± 1	13.5	57.4	174	221	31	1.1	12.1	1.0	3.5	3.0
Dyna-Gro	V9710	60 ± 1	13.4	55.0	178	220	30	1.0	12.4	2.5	3.5	2.3
MO	Bess	59 ± 1	13.8	55.4	176	221	35	1.2	11.6	2.2	2.5	1.7
Syngenta (AgriPro Coker)	W1377	58 ± 1	14.1	57.2	180	222	34	1.3	11.5	1.2	2.3	2.0
MO	Truman	57 ± 1	14.2	54.7	186	225	37	1.2	11.2	2.0	1.9	1.0
	Average	**63**	**13.6**	**55.2**	**177**	**222**	**34**	**1.2**	**11.6**	**1.6**	**2.9**	**2.1**

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

§ Official test weight of No. 2 wheat = 58 lbs/bu.

Maturity (DAP) = Days after planting

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

* Protein on a dry weight basis.

Take All Disease - 1 to 5 scale; where 1 = 95% of plants non-infected; 2.5 = ~50% of plants infected; 5 = 95+% of plants infected.

Take All Disease ratings taken at the East Tennessee Research & Education Center, Knoxville, TN in 2008.

Septoria Leaf Blight, Head Scab = 1 to 5 scale; where 1 = no disease; 2.5 = ~50% plant tissue diseased; 5 = 95+% of plant tissue diseased.

Septoria Leaf Blight and Head Scab disease ratings taken at the Highland Rim (Springfield, TN) and West Tennessee (Jackson, TN) Research & Education Centers in 2010.

---------- Oats ----------

Results

A fall seeded oat test was conducted at the East TN (Knoxville) and Middle TN (Spring Hill) Research and Education Centers (REC) during 2009-2010 on 23 winter oat varieties / breeding lines.

The average yield of the 23 oat entries was 84 bu/a, ranging from 66 to 109 bu/a. Test weights ranged from 30.7 to 39.0 lbs/bu. The official test weight for oats is 36 lbs/bu. A moderate amount of winter injury occurred on some of the breeding lines at Knoxville, reducing overall stands for those lines. Nine of the 23 varieties have been evaluated over the two year period 2009 - 2010. Six of the 23 varieties have been evaluated over the three year period 2008 – 2010.

Table 10. Mean yields and agronomic characteristics of 23 fall seeded oat lines evaluated at two locations in Tennessee during 2010.

Origin	Line	Avg. Yield ± Std Err. (n=2)	Knoxville	Spring Hill	Moisture at Harvest (n=2)	Test Weight § (n=1)	Winter Kill (n=1)	Heading (n=1)	Maturity (n=2)	Height (n=2)	Lodging (n=2)
		bu/acre	11/4/09 ‡	11/5/09	%	lb/bu	%	DAP	DAP	inches	1-5 score
TX	TX07CS3697	109 ± 5	138	80	10.7	34.9	7	185	226	34	1.3
NC	NC07-3972y	100 ± 5	116	84	10.9	35.0	12	192	221	34	1.2
TX	TX07CS2783	97 ± 5	114	79	10.1	30.7	8	191	224	34	2.1
TX	TAMO 406	93 ± 5	114	72	10.6	33.9	18	186	222	34	1.8
LA	FL04155-S06-31-B-S1	92 ± 5	120	65	11.1	36.3	15	188	226	34	1.5
TX	TX05CS347-1	92 ± 5	117	67	10.8	36.9	10	186	226	32	1.3
FL	Horizon 201	92 ± 5	122	61	10.6	32.3	17	182	227	35	1.3
TX	TX07CS2765	90 ± 5	116	64	10.3	32.6	8	186	225	33	1.3
NC	NC05-5460y	87 ± 5	101	74	11.1	36.6	17	185	222	30	1.4
FL	FL03166-L7	85 ± 5	107	63	11.2	39.0	28	182	224	32	1.2
NC	Rodgers	83 ± 5	92	73	10.7	34.2	20	185	223	35	1.4
LA	FL03053-S06-15-B-S1B	82 ± 5	105	59	10.5	34.4	13	188	225	33	1.7
FL	FL04126-L4	82 ± 5	111	53	10.7	34.2	25	186	222	34	2.3
FL	FL03211-L1	82 ± 6	106	58	10.3	32.4	27	188	224	33	1.8
LA	LA03046SBS7-B-S1	80 ± 5	105	56	10.4	33.8	15	192	225	31	1.0
FL	LA04003S-L3	80 ± 5	106	53	10.8	35.3	27	188	227	35	1.4
LA	LA03063SBSBSB-S4	78 ± 5	107	50	10.2	33.9	20	183	227	31	1.3
TX	TX05CS542	76 ± 5	106	45	10.6	33.3	12	183	226	33	1.1
NC	NC07-3843y	73 ± 5	83	63	10.6	34.6	23	191	220	30	1.3
LA	Horizon 270	73 ± 5	94	53	10.4	32.6	20	190	222	29	1.0
TX	TX05CS556	72 ± 5	95	49	10.4	34.3	15	190	223	31	1.0
LA	LA02065SBSBSBSB-88	69 ± 5	85	54	10.8	34.2	30	180	227	33	1.2
FL	FL0115-J2	66 ± 5	90	42	10.8	34.8	27	190	227	32	1.1
	Average (bu/a)	**84**	**107**	**61**	**10.6**	**34.4**	**18**	**187**	**224**	**33**	**1.4**
	L.S.D.$_{.05}$ (bu/a)	**14**	**25**	**13**							
	C.V. (%)	**14.3**	**14.1**	**12.9**							

† All yields are adjusted to 14% moisture. § Official test weight of Oats = 36 lbs/bu. Heading, Maturity (DAP) = Days after planting

‡ Planting date Seeding rate of 28 seed per square foot

Winter kill notes taken on 4/1/10 - percentage of stand killed by frost.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Knoxville test harvested 6/14/10

Spring Hill test harvested 6/23/10

Table 11. Mean yields and agronomic characteristics of nine fall seeded oat lines evaluated at Knoxville, TN for two years, 2009 and 2010.

Origin	Line	Avg. Yield ± Std Err. (n=2)	Moisture at Harvest (n=2)	Test Weight § (n=2)	Winter Kill (n=2)	Maturity (n=2)	Height (n=2)	Lodging (n=2)
		bu/acre	%	lb/bu	%	DAP	inches	1-5 score
LA	LA03046SBS7-B-S1	115 ± 6	11.5	33.5	11	230	37	2.0
TX	TX05CS542	115 ± 7	11.5	32.7	10	232	42	2.5
FL	Horizon 201	114 ± 6	11.7	32.0	15	234	43	2.6
TX	TX05CS556	114 ± 7	11.3	33.8	10	233	37	2.3
TX	TX05CS347-1	110 ± 7	11.6	36.0	9	234	41	2.8
NC	Rodgers	107 ± 6	11.6	34.9	13	228	43	2.9
FL	FL0115-J2	104 ± 6	12.1	34.8	20	235	42	2.0
TX	TAMO 406	90 ± 6	11.2	33.8	16	228	42	3.3
NC	NC05-5460y	83 ± 6	11.6	36.1	14	228	38	3.3
	Average (bu/a)	**106**	**11.6**	**34.2**	**13**	**231**	**40**	**2.6**
	L.S.D.$_{.05}$ (bu/a)	**23**						
	C.V. (%)	**13.9**						

Table 12. Mean yields and agronomic characteristics of six fall seeded oat lines evaluated at Knoxville, TN for three years, 2008 - 2010.

Origin	Line	Avg. Yield ± Std Err. (n=3)	Moisture at Harvest (n=3)	Test Weight § (n=3)	Winter Kill (n=3)	Maturity (n=2)	Height (n=3)	Lodging (n=3)
		bu/acre	%	lb/bu	%	DAP	inches	1-5 score
TX	TX05CS542	101 ± 5	12.4	32.2	7	232	42	2.0
LA	LA03046SBS7-B-S1	99 ± 5	11.8	33.9	7	230	37	1.7
NC	Rodgers	96 ± 5	12.6	33.8	9	228	43	2.3
TX	TX05CS347-1	96 ± 5	12.2	35.9	6	234	41	2.2
FL	Horizon 201	93 ± 5	14.2	31.0	10	234	43	2.1
FL	FL0115-J2	87 ± 5	13.1	33.3	13	235	42	1.7
	Average (bu/a)	**95**	**12.7**	**33.4**	**9**	**232**	**41**	**2.0**
	L.S.D.$_{.05}$ (bu/a)	**19**						
	C.V. (%)	**13.9**						

† All yields are adjusted to 14% moisture.

§ Official test weight of Oats = 36 lbs/bu.

Maturity (DAP) = Days after planting

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Table 13. Contact information for wheat seed companies evaluated in yield tests in Tennessee during 2009-10

Company	Contact	Phone	Email	Web site	Address
Syngenta (AgriPro Coker)	June Hancock	870-483-7691	june.hancock@syngenta.com	www.agriprowheat.com	778 CR 680, Bay, AR 72411
Armor, Delta King (Cullum Seeds)	Lane Dill	901-233-0274	lanedill@jwrayseeds.com	www.cullumseeds.com	P.O. Box 178, Fisher, AR 72429
Dixie (Cache River Valley Seed)	Andy Morris Jim Bigger James Crawford	901-674-0768 870-477-5427 870-974-2310	crvseed@crvseed.com jimb@crvseed.com james@crvseed.com	www.crvseed.com	300 Lost Acne Way, Arlington, TN 38002 P.O. Box 10, Cash, AR 72421 Highway 226 East, Cash, AR 72421
Croplan Genetics (available at TN Farmers Co-Op and Agreliance locations)	Jesse Witt Keith Saum Ashley Plymale Jim Payne Matt Sowder	256-221-5932 731-610-7006 270-719-1570 901-652-0903 901-355-7267	JBWitt@landolakes.com kdsaum@landolakes.com jpayne@ourcoop.com	www.croplangenetics.com www.ourcoop.com	DSM Middle & East TN DSM West TN Agronomist West TN East & Middle TN
Delta Grow Seed	Lee Hughes	800-530-7933	leehughes19@hotmail.com	www.deltagrow.com	P O Box 219, England, AR 72046
Dyna-Gro (Crop Production Services)	Steve Johnson Mick Schonauer	731-885-1212 937-644-9467	steve.johnson@cpsagu.com michael.schonauer@cpsagu.com	www.dynagroseed.com	710 South First Street, Union City, TN 38621
University of Georgia	Jerry Johnson	770-228-7345	jjohnson@griffin.uga.edu		University of Georgia CAES - Griffin Campus Griffin, GA 30223
Michigan Crop Improvement Association	C.J. Palmer	517-332-3546	palmerj@michcrop.com		Michigan Crop Improvement Association P.O. Box 21008 Lansing, MI 48909
University of Missouri	Mary Ann Quade Anne McKendry	573-884-7333 573-882-7707	quadem@missouri.edu mckendrya@missouri.edu		University of MO Foundation Seed 3600 New Haven Rd Columbia, MO 65201
North Carolina State University	Paul Murphy	919-513-0000	paul_murphy@ncsu.edu		NC State University 840 Method Rd., Unit 3 Raleigh, NC 27695-7629
Ohio Seed Improvement Association	John Armstrong	614-889-1136			6150 Avery Road, Box 477 Dublin, OH 43017-0477
Pioneer Hi-Bred Int.	Michael Hughes	800-331-2475	michael.hughes@pioneer.com	www.pioneer.com	700 Boulevard South, Suite 302, Huntsville, AL 35802
Progeny	Corey Dildine	870-208-6032	corey@progenyag.com	www.progenyag.com	1529 Hwy 193, Wynne, AR 72396
Terral Seed Inc	Larry Mullen	318-559-2840	lmullen@terralseed.com	www.terralseed.com	P O Box 826, Lake Providence, LA 71254
University of Tennessee	Dennis West	865-974-8826	dwest3@utk.edu		3421 Joe Johnson Dr, Knoxville, TN 37996-4561

(continued)

Table 13. Contact information for wheat seed companies evaluated in yield tests in Tennessee during 2009-10

Company	Contact	Phone	Email	Web site	Address
Unisouth Genetics (USG)	Stacy Burwick	800-505-3133	sburwick@bellsouth.net	www.usgseed.com	2640-C Nolensville Rd., Nashville, TN 37211
	David Fandrich	931-967-3377	fandrichsupply@aol.com		Fandrich Supply Co, Belvidere, TN
	Mark Huffstetler	731-235-2167	huffy1@crunet.com		Huffstetler & Sons Seed Inc, Greenfield, TN
	Trey Hurt	731-836-7574	hurtco@bellsouth.net		Hurt Seed Co. Inc, Halls, TN
	Wes Miller	731-536-6251	wes@obiongrain.com		Obion Grain Co. Inc, Obion, TN
	Billy Sellers	731-538-2990			Sellers Seed, Obion, TN
Virginia Tech	David Whitt	804-746-4884	dwhitt@vt.edu	www.virginiacrop.org	Virginia Crop Improvement Assoc. 9142 Atlee Station Rd Mechanicsville, VA 23116
Warren Seed	Lanny Warren	731-234-2921	lanny.warren@charter.net		P.O. Box 10, Woodland Mills, TN 38271-0010