Wheat Variety Performance
Tests in Tennessee

2019

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General Information

Research and Education Center Tests: The 2018-19 variety performance tests were conducted on 82 soft red winter wheat varieties in each of the physiographic regions of the state. Tests were conducted at the East TN (Knoxville), Plateau (Crossville), Highland Rim (Springfield), Milan (Milan), and West TN (Jackson) Research and Education Centers (REC), and at the Agricenter in Memphis. The test at the Agricenter in Memphis was not harvested due to damage from deer eating heads during the dough stage of development.

All varieties were seeded at rates of 35 seed per square foot (1.5 million seed per acre) (Table 1). Plots were seeded with drills using 7–7.5 inch row spacing. The plot size was six, seven, nine or ten rows, 20 to 25 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 23 soft red winter wheat varieties across three counties in West Tennessee (Fayette, Madison, 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. No statistical analysis was completed due to small number of test sites that produced data. 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 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.

Growing Season: Planting of the winter wheat crop proceeded in a timely manner in the fall of 2018 at all locations. The growing season was normal for winter wheat and the crop progressed in a timely manner up to harvest. Disease pressure was light across most of Tennessee.

According to the Tennessee Agricultural Statistics Service (TASS), Estimated State yield average is 67 bu/a in 2019. Tennessee producers planted approximately 300,000 acres of wheat in the fall of 2018. Approximately 225,000 acres are estimated to be harvested for grain. According to TASS, the total wheat production in Tennessee for 2019 is projected to be 15.1 million bushels, a decrease of 19 percent from 2018 production.

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).

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 Summary

Yield and Agronomic Traits: During 2019, 82 wheat varieties were evaluated in five Research and Education Center (REC) tests, and 23 varieties were evaluated in 3 county standard tests (CST). Sixteen varieties in the CST were also present in the REC tests (Table 5). Eleven companies and five universities entered varieties into the tests this year. The average yield of the 82 varieties in the 2019 REC tests was 80 bu/a (range from 62 to 90 bu/a, Table 2). The varieties ranged in heading date from 112 to 118 days after January 1 (Julian date) with most of the varieties clustering around 116 days (Table 3). The average yield of the 23 varieties in the county tests was 74 bu/a, with individual varieties ranging from 83 to 63 bu/a (Table 4). The test weight values ranged from 53.5 to 59.1 lbs/bu in the REC tests (Table 3) and 53.7 to 58.9 lbs/bu in the CST (Table 4).

Table 1. Location information from research and education centers where the wheat variety tests were conducted in 2019.

Research and Education Center	Location	Planting Date	Harvest Date		Seeding Rate	Soil Type	Previous crop
East Tennessee	Knoxville	10/24/2018	6/15/2019	35/ft^2	1.5 mill./ac	Huntington Silt Loam	Forage Sorghum
Plateau	Crossville	10/24/2018	6/27/2019	35/ft^2	1.5 mill./ac	Hendon Silt loam	Sudangrass
Highland Rim	Springfield	10/24/2018	6/13/2019	35/ft^2	1.5 mill./ac	Dickson Silt Loam	Soybean
West Tennessee	Jackson	10/19/2018	6/19/2019	35/ft^2	1.5 mill./ac	Memphis Silt Loam	Corn
Milan	Milan	10/24/2018	6/12/2019	35/ft^2	1.5 mill./ac	Grenada Silt Loam	Cotton

Table 2. Mean yields† of 82 soft red winter wheat varieties evaluated at five locations in Tennessee during 2019

Brand	Variety	Avg. Yield (n=5)‡	Knoxville	Crossville	Springfield	Milan	Jackson*
		bu/a					
AgriMAXX	446	90.4	92.8	83.2	83.1	89.5	103.6
Croplan by Winfield	CP9415	88.0	108.8	72.9	83.1	79.1	96.0
Erwin-Keith/Progeny	PGX 18-2	87.8	96.8	69.8	93.5	88.6	90.4
Dyna-Gro	WX18416	87.2	93.6	64.0	104.5	86.5	87.1
AgriMAXX	454	87.1	84.7	66.6	95.0	86.1	103.2
USG	3329	86.3	92.9	69.4	94.2	81.2	94.1
Erwin-Keith/Progeny	#Blaze	86.2	94.8	82.8	80.3	84.9	88.1
Dyna-Gro	9522	86.1	93.9	85.3	82.6	76.9	92.1
Erwin-Keith/Progeny	PGX 18-7	86.1	85.5	77.4	92.8	82.1	92.9
Armor	ARW1819	85.9	98.0	61.6	101.1	79.3	89.5
Limagrain	L11814	85.8	101.6	67.9	102.2	89.6	67.6
Dyna-Gro	9941	84.8	100.0	67.3	81.9	80.3	94.6
USG	3539	84.6	103.7	58.3	83.8	80.0	93.6
Univ Tenn Exp	TN1901	84.2	94.9	77.0	88.6	81.8	78.4
Erwin-Keith/Progeny	#Bullet	84.0	100.7	64.0	83.3	85.5	86.6
Armor	Rage	83.9	80.2	77.1	89.9	85.2	87.3
Pioneer	26R36	83.9	99.2	71.1	88.6	75.5	84.8
Pioneer	26R45	83.9	90.7	65.9	91.5	85.2	.
Armor	Velocity	83.6	88.0	74.2	83.2	83.1	89.6
Croplan by Winfield	CP9606	83.5	107.8	65.4	76.3	76.9	91.0
Stratton Seed Co	GoWheat 2058	83.3	100.8	61.8	84.8	83.7	85.4
Pioneer	26R10	83.2	95.8	70.8	83.1	75.7	90.8
Local Seed Co	LW2848	83.1	91.1	61.4	88.2	83.6	91.5
Local Seed Co	LW2937	82.9	91.6	62.0	92.3	78.6	89.9
Erwin-Keith/Progeny	PGX 18-8	82.5	92.2	70.2	89.1	81.8	80.4
Stratton Seed Co	GoWheat EXP18-2	82.4	94.8	76.3	77.4	73.9	89.7
Armor	ARW1815	82.4	91.2	80.3	78.9	76.3	85.4
AgriPro	SY Viper	82.3	101.9	72.5	95.1	82.9	59.3

(continued)

Table 2. Mean yields† of 82 soft red winter wheat varieties evaluated at five locations in Tennessee during 2019

Brand	Variety	Avg. Yield (n=5)‡	Knoxville	Crossville	Springfield	Milan	Jackson
		bu/a					
Dyna-Gro	9701	82.3	87.2	71.9	86.2	80.3	85.6
AgriMAXX	Exp 1913	82.1	86.8	62.7	85.2	86.4	89.2
VA Crop Imp Ass'n	Liberty 5658	81.9	101.7	54.6	90.4	88.1	74.8
Univ AR	AR06146E-1-4	81.9	94.0	54.9	90.3	83.1	88.6
Local Seed Co	LWX19D	81.8	88.5	57.7	88.9	84.3	89.8
Erwin-Keith/Progeny	#Turbo	80.9	98.4	51.5	91.8	84.4	76.1
AgriMAXX	486	80.4	82.0	56.1	82.5	84.0	94.7
USG	3438	80.4	93.9	67.4	84.9	68.6	87.4
Stratton Seed Co	AGS 2038	80.2	85.6	65.3	85.5	72.4	92.0
Armor	Mayhem	80.1	81.6	54.4	94.2	84.8	79.0
Armor	Spirit	80.1	88.6	66.8	78.1	84.3	82.7
Pioneer	26R41	80.0	84.1	63.7	78.3	83.1	91.1
Stratton Seed Co	AGS 2055	80.0	94.7	52.6	77.9	87.4	87.3
Croplan by Winfield	CP8800	79.9	95.4	62.5	74.9	80.8	85.6
USG	3404	79.7	83.4	71.9	89.0	67.8	86.5
Erwin-Keith/Progeny	PGX 17-16	79.4	80.4	67.3	88.8	77.8	82.8
Croplan by Winfield	CP8550	79.4	92.4	52.5	84.1	85.3	82.5
AgriMAXX	Exp 1906	79.4	92.7	53.4	79.4	79.5	91.7
AgriPro	SY 547	79.3	84.6	65.0	83.3	84.6	78.9
AgriMAXX	473	79.1	90.6	53.6	84.4	83.9	82.8
Dyna-Gro	9811	78.9	83.7	69.8	74.3	82.8	84.1
Univ Tenn Exp	TN1702	78.9	89.2	55.3	100.1	75.2	74.7
Local Seed Co	LW2958	78.4	91.5	60.5	79.2	77.3	83.7
USG	3536	78.1	81.1	69.1	86.9	73.4	79.9
Texas A&M Univ	TX15D9579	77.8	76.9	78.3	85.9	74.2	73.9
Erwin-Keith/Progeny	#Warrior	77.7	101.7	64.6	77.2	84.9	60.1

(continued)

Table 2. Mean yields† of 82 soft red winter wheat varieties evaluated at five locations in Tennessee during 2019

Brand	Variety	Avg. Yield (n=5)‡	Knoxville	Crossville	Springfield	Milan	Jackson
		----------bu/a----------					
Limagrain	L11719	77.6	92.0	63.1	76.4	77.2	79.3
Stratton Seed Co	GoWheat EXP18-1	77.4	93.4	66.9	71.5	75.7	.
Texas A&M Univ	TX15D9597	77.2	86.6	48.9	89.5	81.2	79.5
Armor	ARW1766	76.8	82.7	60.6	73.0	77.2	90.7
AgriPro	SX 8186	76.6	90.3	69.6	83.0	82.7	57.4
Univ Tenn Exp	TN1903	76.3	84.0	66.0	74.4	76.2	80.9
Pioneer	26R59	76.1	74.1	72.6	91.6	85.9	56.5
USG	3228	76.0	95.9	56.8	80.4	81.2	59.7
AgriMAXX	495	76.0	87.7	59.0	81.8	74.9	76.7
AgriMAXX	463	76.0	98.6	47.9	70.9	87.3	75.1
Dyna-Gro	9932	75.2	84.9	61.3	81.4	66.9	81.6
Erwin-Keith/Progeny	#Fury	74.8	94.6	57.3	71.7	80.7	55.1
Univ GA	GA071518-16E39	74.8	80.4	60.7	82.5	68.3	82.1
AgriMAXX	485	74.8	82.8	64.0	76.2	83.3	48.7
Univ MD	15 MDX20	74.4	91.7	53.5	71.3	73.9	81.6
Univ MD	15MW131	74.2	82.5	67.3	72.3	79.5	69.6
Texas A&M Univ	TX15D9253	74.2	85.1	51.4	79.4	71.3	83.6
USG	3458	74.0	97.4	53.0	81.1	81.4	47.6
USG	3118	73.7	88.8	53.7	80.5	73.7	72.2
Univ AR	AR07133C-19-4	73.6	72.6	61.0	81.0	68.2	85.2
USG	3895	71.5	78.0	64.6	75.8	56.3	82.6
Erwin-Keith/Progeny	PGX 16-4	71.4	100.6	45.6	70.3	76.1	64.4
Univ Tenn Exp	TN1902	71.3	77.8	63.7	87.2	70.8	56.8
Univ MD	15MDX18	69.3	81.0	61.0	66.3	75.9	67.0
Univ GA	GA09129-16E55	69.0	70.6	51.9	81.2	68.7	72.8
Univ GA	GA09436-16LE12	67.6	74.6	60.5	74.8	58.1	70.2
Texas A&M Univ	TX15D9608	61.6	69.5	.	63.7	63.8	64.9
Average (bu/a)		79.7	89.6	64.2	83.4	79.0	81.7
L.S.D.$_{.05}$ (bu/a)		6.7	14.8	16.0	15.6	10.3	17.8
C.V. (%)		13.4	10.1	15.2	11.4	8.0	13.4

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

* Missing values due to deer damage

Table 3. Mean yields† and agronomic characteristics of 82 soft red winter wheat varieties evaluated at five locations in Tennessee during 2019

Brand	Variety	Avg. Yield (n=5)‡	Test Weight# (n=3)	Heading Date (n=3)	Height (n=3)
		bu/a	lbs/bu	julian	in.
AgriMAXX	446	90.4	56.1	117	31
Croplan by Winfield	CP9415	88.0	55.6	117	32
Erwin-Keith/Progeny	PGX 18-2	87.8	57.1	111	30
Dyna-Gro	WX18416	87.2	54.6	116	32
AgriMAXX	454	87.1	56.0	117	31
USG	3329	86.3	54.9	115	32
Erwin-Keith/Progeny	#Blaze	86.2	55.1	116	33
Dyna-Gro	9522	86.1	56.1	115	33
Erwin-Keith/Progeny	PGX 18-7	86.1	56.0	116	33
Armor	ARW1819	85.9	54.7	115	31
Limagrain	L11814	85.8	55.0	114	28
Dyna-Gro	9941	84.8	54.3	116	32
USG	3539	84.6	55.2	117	30
Univ Tenn exp	TN1901	84.2	54.3	114	33
Erwin-Keith/Progeny	#Bullet	84.0	55.8	117	34
Armor	Rage	83.9	56.0	116	33
Pioneer	26R36	83.9	55.4	116	32
Pioneer	26R45	83.9	55.7	117	33
Armor	Velocity	83.6	56.3	113	34
Croplan by Winfield	CP9606	83.5	54.5	116	32
Stratton Seed Co	GoWheat 2058	83.3	54.0	116	29
Pioneer	26R10	83.2	54.6	117	31
Local Seed Co	LW2848	83.1	56.2	116	34
Local Seed Co	LW2937	82.9	55.8	116	32
Erwin-Keith/Progeny	PGX 18-8	82.5	55.5	117	30
Stratton Seed Co	GoWheat EXP18-2	82.4	54.6	117	31
Armor	ARW1815	82.4	55.4	117	33
AgriPro	SY Viper	82.3	55.2	113	33

(continued)

Table 3. Mean yields† and agronomic characteristics of 82 soft red winter wheat varieties evaluated at five locations in Tennessee during 2019

Brand	Variety	Avg Yield (n=5)‡	Test Weight# (n=3)	Heading date (n=3)	Height (n=3)
		bu/a	lbs/bu	julian	in.
Dyna-Gro	9701	82.3	55.1	117	34
AgriMAXX	Exp 1913	82.1	56.1	114	31
VA Crop Imp Ass'n.	Liberty 5658	81.9	57.4	115	34
Univ AR	AR06146E-1-4	81.9	55.6	113	35
Local Seed Co	LWX19D	81.8	53.7	117	32
Erwin-Keith/Progeny	#Turbo	80.9	55.9	114	28
AgriMAXX	486	80.4	55.4	118	34
USG	3438	80.4	53.9	115	31
Stratton Seed Co	AGS 2038	80.2	57.8	118	39
Armor	Mayhem	80.1	55.2	116	34
Armor	Spirit	80.1	54.9	115	30
Pioneer	26R41	80.0	55.5	116	30
Stratton Seed Co	AGS 2055	80.0	54.9	117	34
Croplan by Winfield	CP8800	79.9	54.9	117	33
USG	3404	79.7	55.0	118	33
Erwin-Keith/Progeny	PGX 17-16	79.4	56.2	117	33
Croplan by Winfield	CP8550	79.4	56.3	117	35
AgriMAXX	Exp 1906	79.4	56.1	114	32
AgriPro	SY 547	79.3	56.0	114	34
AgriMAXX	473	79.1	54.3	115	33
Dyna-Gro	9811	78.9	54.9	116	33
Univ Tenn Exp	TN1702	78.9	56.3	116	30
Local Seed Co	LW2958	78.4	57.1	115	33
USG	3536	78.1	55.5	116	34
Texas A&M Univ	TX15D9579	77.8	55.6	113	33
Erwin-Keith/Progeny	#Warrior	77.7	54.6	114	30

(continued)

Table 3. Mean yields† and agronomic characteristics of 82 soft red winter wheat varieties evaluated at five locations in Tennessee during 2019

Brand	Variety	Avg Yield (n=5)‡	Test Weight# (n=3)	Heading date (n=3)	Height (n=3)
		bu/a	lbs/bu	julian	in.
Limagrain	L11719	77.6	55.9	117	30
Stratton Seed Co	GoWheat EXP18-1	77.4	56.1	118	32
Texas A&/M Univ	TX15D9597	77.2	56.6	114	33
Armor	ARW1766	76.8	56.2	115	32
AgriPro	SX 8186	76.6	56.0	115	31
Univ Tenn Exp	TN1903	76.3	56.5	117	35
Pioneer	26R59	76.1	54.4	115	29
USG	3228	76.0	53.5	113	30
AgriMAXX	495	76.0	55.3	114	32
AgriMAXX	463	76.0	56.1	115	32
Dyna-Gro	9932	75.2	55.5	117	32
Erwin-Keith/Progeny	#Fury	74.8	56.4	115	31
Univ Georgia	GA071518-16E39	74.8	55.4	115	32
AgriMAXX	485	74.8	55.5	116	32
Univ MD	15 MDX20	74.4	54.2	114	30
Univ MD	15MW131	74.2	56.8	116	31
Texas A&/M Univ	TX15D9253	74.2	53.8	113	29
USG	3458	74.0	53.9	114	30
USG	3118	73.7	56.7	113	28
Univ AR	AR07133C-19-4	73.6	55.9	116	33
USG	3895	71.5	54.6	117	30
Erwin-Keith/Progeny	PGX 16-4	71.4	56.1	113	31
Univ Tenn Exp	TN1902	71.3	56.9	115	31
Univ MD	15MDX18	69.3	56.3	116	28
Univ Georgia	GA09129-16E55	69.0	56.8	113	31
Univ Georgia	GA09436-16LE12	67.6	59.1	115	35
Texas A&/M Univ	TX15D9608	61.6	54.0	112	28
Average		79.7	55.6	115.0	31.0
CV (%)		6.7	1.6	1.1	7.0

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

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

Heading date = Days from Jan 1 to heading.

Table 4. Yields† of 23 soft red winter wheat varieties evaluated in 3 County Standard test in Tennessee during 2019

Variety	AvgYld	MOIST	TWT	County		
				Fayette	Madison	Weakley
	bu/ac	%	lb/bu	24-Oct	29-Nov	24-Oct
Armor Rage	83.2	14.9%	56.6	65.5	107.4	76.5
Progeny #Blaze	81.8	14.7%	57.8	59.1	106.5	79.7
Croplan SRW 9415	80.2	14.8%	58.9	55.6	100.2	84.9
Dyna-Gro 9692	79.4	14.9%	56.9	74.0	98.9	65.2
Stratton Seed GW 2058	78.3	14.7%	57.3	64.9	101.9	68.1
Progeny #Bullet	77.7	14.8%	56.8	68.3	98.8	66.1
Armor Mayhem	77.6	15.1%	56.6	62.5	99.7	70.5
Croplan SRW 8550	77.5	14.7%	56.6	75.8	90.1	66.6
Dyna-Gro 9522	77.3	15.5%	56.1	60.4	96.9	74.7
Warren Seed McKenna 335	76.9	15.2%	56.7	67.6	91.6	71.6
AgriPro SY Viper	76.6	15.7%	55.9	-	90.1	63.1
Warren Seed McKay 120	75.0	15.5%	56.4	55.5	92.4	77.1
USG 3329	74.9	15.8%	56.5	44.1	101.2	79.4
Stratton Seed AGS 2055	74.5	14.3%	56.3	56.6	101.9	65.0
Progeny #Warrior	73.4	15.3%	56.2	-	88.3	58.5
Croplan SRW 9606	73.1	14.5%	56.3	33.3	101.1	84.8
Dyna-Gro 9941	70.5	15.8%	53.7	37.7	96.8	76.9
USG 3895	69.3	15.6%	55.5	47.6	80.1	80.2
USG 3536	68.4	14.6%	57.1	54.9	80.0	70.4
Dyna-Gro 9932	67.1	16.0%	56.0	49.8	92.9	58.6
AgriPro SY 547	66.1	14.9%	56.6	39.4	93.0	65.9
Armor Venom	65.1	15.2%	57.3	40.0	88.8	66.6
Stratton Seed GW 2032	63.2	15.4%	57.6	35.4	82.5	71.7
Averages	74.2	15.1%	56.6	54.7	94.8	71.4

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

Statistical analysis was not conducted on this data due to the lack of replication.

Official test weight of No. 2 wheat=58 lbs/bu. TWT = Avg. Test Wt. lbs./bu @ 3 locations.

(-) denotes complete loss to deer damage (awnless varieties)

Table 5. Average yields† and test weights of 16 soft red winter wheat varieties that were in common to both the County Standard (CST) Tests (n=3) and the Research and Education Center (REC) Tests (n=5) in Tennessee during 2019.

		Average of CST & REC Tests		County Standard Tests		REC Tests	
Brand	**Variety**	**Avg. Yield**	**Test Weight‡**	**Avg. Yield**	**Test Weight**	**Avg. Yield**	**Test Weight**
		bu/a	lbs/bu	bu/a	lbs/bu	bu/a	lbs/bu
Armor	Rage	83.6	56.3	83.2	56.6	83.9	56.0
Progeny	#Blaze	84.0	56.5	81.8	57.8	86.2	55.1
Croplan	SRW9415	84.6	56.8	80.2	58.9	88.0	55.6
Stratton Seed	GW 2058	80.5	55.7	78.3	57.3	83.3	54.0
Progeny	#BULLET	81.0	56.3	77.7	56.8	84.0	55.8
Armor	Mayhem	78.9	56.4	77.6	56.6	80.1	56.2
Croplan SRW 8550	SRW 8550	78.5	56.5	77.5	56.6	79.4	56.3
AgriPro	SY Viper	79.4	55.7	76.6	55.9	82.3	55.2
USG	3329	80.1	55.7	74.9	56.5	86.3	54.9
Stratton Seed	AGS 2055	76.8	55.6	74.5	56.3	80.0	54.9
Progeny	#Warrior	75.6	55.5	73.4	56.2	77.7	54.6
USG	3895	70.4	55.1	69.3	55.5	71.5	54.6
USG	3536	73.1	56.4	68.4	57.1	78.1	55.5
Dyna-Gro	9932	71.2	55.8	67.1	56.0	75.2	55.5
AgriPro	SY 547	72.7	56.3	66.1	56.6	79.3	56.0
Armor	Venom	69.6	57.2	65.1	57.3	74.0	57.0
Average		77.5	56.2	74.5	56.8	80.6	55.5

Table 6. Mean yields† of 31 soft red winter wheat varieties evaluated at fiour locations (n=8) in Tennessee for two years, 2018 and 2019.

Brand	Variety	Avg. Yield (n=8)‡	Knoxville	Springfield	Milan	Jackson
			----------bu/a----------			
Erwin-Keith/Progeny	#Bullet	87.5	89.9	85.5	77.7	97.1
Croplan by Winfield	CP8550	87.0	92.1	84.3	77.2	94.2
USG	3329	86.6	88.1	85.1	78.3	94.8
Stratton Seed Co	GoWheat 2058	86.5	91.5	85.6	77.2	92.2
Dyna-Gro	9941	86.2	92.2	79.3	74.8	98.7
Croplan by Winfield	CP9415	85.8	95.5	76.2	74.4	97.1
Armor	Mayhem	85.4	81.3	94.0	75.0	89.9
Stratton Seed Co	AGS 2055	84.9	89.4	80.5	78.2	91.7
Dyna-Gro	9701	84.6	84.1	86.0	71.3	96.8
Erwin-Keith/Progeny	#Turbo	84.2	91.1	97.5	71.3	74.3
Pioneer	26R10	84.1	85.5	81.0	73.3	96.5
Univ AR	AR06146E-1-4	84.1	87.1	89.4	70.7	90.0
USG	3536	84.0	87.7	87.1	70.2	91.1
Pioneer	26R41	83.6	87.9	80.3	75.3	90.8
AgriPro	SY 547	83.3	88.0	86.9	80.5	77.9
Dyna-Gro	9811	83.0	88.4	84.9	70.4	88.6
Pioneer	26R45	82.8	83.2	86.9	76.6	82.0
USG	3438	81.9	91.6	81.0	68.5	86.7
UniV TN ezp	TN1702	81.9	89.9	88.6	70.6	78.4
Erwin-Keith/Progeny	#Blaze	81.6	82.2	74.4	77.8	92.2
Pioneer	26R36	81.6	90.5	75.5	73.3	87.1
USG	3404	81.4	81.3	78.3	73.2	92.9
AgriPro	SY Viper	80.6	92.7	93.1	77.4	59.2
Dyna-Gro	9522	80.5	84.0	70.5	73.1	94.5
USG	3228	80.0	88.9	81.9	75.7	71.7
Croplan by Winfield	CP9606	79.8	85.0	65.9	75.9	92.6
Erwin-Keith/Progeny	#Warior	79.2	96.1	78.9	76.3	57.0
Erwin-Keith/Progeny	#Fury	78.7	94.7	80.2	72.1	61.1
USG	3118	76.3	89.3	77.8	61.2	78.2
USG	3895	75.6	79.2	71.9	62.2	89.2
Pioneer	26R59	74.2	63.6	85.6	80.0	67.7
Average (bu/a)		82.4	87.3	82.4	73.8	86.4
L.S.D.$_{.05}$ (bu/a)		14.3	12.4	12.6	10.6	13.5
C.V. (%)		9.7	12.6	11.9	9.1	13.6

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

Table 7. Mean yields† and agronomic characteristics of 31 soft red winter wheat varieties evaluated at four locations (n=8) in Tennessee for two years, 2018 and 2019.

Brand	Variety	Avg. Yield (n=8)‡	Test Weight# (n=6)	Date Headed (n=6)	Height (n=6)
		bu/a	lbs/bu	Julian	in.
Erwin-Keith/Progeny	#Bullet	87.5	55.6	116	36
Croplan by Winfield	CP8550	87.0	55.7	116	35
USG	3329	86.6	54.3	115	34
Stratton Seed Co	GoWheat 2058	86.5	54.7	116	30
Dyna-Gro	9941	86.2	53.2	117	33
Croplan by Winfield	CP9415	85.8	55.2	118	33
Armor	Mayhem	85.4	55.0	116	35
Stratton Seed Co	AGS 2055	84.9	54.1	116	35
Dyna-Gro	9701	84.6	54.8	118	35
Erwin-Keith/Progeny	#Turbo	84.2	55.9	115	29
Pioneer	26R10	84.1	53.8	118	32
Univ AR	AR06146E-1-4	84.1	56.0	114	37
USG	3536	84.0	55.3	117	36
Pioneer	26R41	83.6	54.9	116	32
AgriPro	SY 547	83.3	56.2	113	36
Dyna-Gro	9811	83.0	55.6	116	35
Pioneer	26R45	82.8	55.5	116	35
USG	3438	81.9	53.1	116	32
Univ Tenn exp	TN1702	81.9	55.9	116	32
Erwin-Keith/Progeny	#Blaze	81.6	54.4	116	34
Pioneer	26R36	81.6	54.9	118	33
USG	3404	81.4	53.9	119	34
AgriPro	SY Viper	80.6	56.2	114	34
Dyna-Gro	9522	80.5	54.1	118	34
USG	3228	80.0	53.1	114	32
Croplan by Winfield	CP9606	79.8	54.1	116	33
Erwin-Keith/Progeny	#Warrior	79.2	54.2	115	31
Erwin-Keith/Progeny	#Fury	78.7	56.4	115	33
USG	3118	76.3	56.3	113	30
USG	3895	75.6	54.1	117	31
Pioneer	26R59	74.2	54.8	115	30
	Average	82.4	54.9	116	33
	C.V. (%)	14.3	2.1	3.6	8.7

† All yields are adjusted to 13.5% moisture.
‡ n = number of environments

Table 8. Mean yields† of 23 soft red winter wheat varieties evaluated at four locations (n=12) in Tennessee for three years, 2017 - 2019.

Brand	Variety	Avg. Yield (n=12)‡	Knoxville	Spring Field	Milan	Jackson
		bu/a				
Erwin-Keith/Progeny	#Bullet	85.7	85.9	86.0	76.0	94.8
Pioneer	26R10	84.6	82.7	82.4	76.4	96.9
Stratton Seed Co	GoWheat 2058	84.5	88.5	80.5	79.8	89.1
Croplan by Winfield	CP9415	83.9	86.1	76.7	78.1	94.8
Stratton Seed Co	AGS 2055	83.1	85.7	77.3	77.7	91.6
Dyna-Gro	9701	82.9	82.4	83.6	72.5	93.2
USG	3536	82.7	86.8	82.4	72.6	88.8
USG	3438	82.7	90.6	81.0	72.5	86.6
Pioneer	26R36	82.1	85.5	75.9	77.1	89.6
Erwin-Keith/Progeny	#Turbo	82.0	95.2	87.5	68.7	75.4
Pioneer	26R41	81.8	83.3	80.1	75.5	88.5
Erwin-Keith/Progeny	#Blaze	81.0	79.6	74.8	78.1	91.3
TN Exp	TN1702	80.8	84.4	87.3	72.3	79.4
Dyna-Gro	9522	80.5	78.7	74.7	76.0	92.5
Croplan by Winfield	CP9606	80.3	82.1	71.0	77.5	90.7
AgriPro	SY 547	80.1	87.6	84.3	75.4	73.2
USG	3404	80.0	78.0	78.4	74.5	89.0
AgriPro	SY Viper	79.7	89.1	89.1	74.7	60.4
Erwin-Keith/Progeny	#Warrior	79.0	92.3	77.7	76.6	62.9
Pioneer	26R45	78.8	81.6	83.3	67.0	82.0
Erwin-Keith/Progeny	#Fury	77.2	91.9	80.2	70.4	62.0
USG	3895	76.5	77.9	71.9	65.8	90.5
Pioneer	26R59	76.5	67.7	83.4	80.4	74.5
Average (bu/a)		81.1	84.5	80.5	74.6	85.1
L.S.D.$_{.05}$ (bu/a)		5.6	9.8	9.7	8.3	11.4
C.V. (%)		14.5	12.3	12.8	11.8	14.2

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

Table 9. Mean yields† and agronomic characteristics of 23 soft red winter wheat varieties evaluated at four locations (n=12) for three years, 2017 - 2019.

Brand	Variety	Avg. Yield (n=15)‡	Test Weight (n=9)	Date Headed (N=6)	Height (n=12)
		bu/a	lbs/bu	julian	in.
Erwin-Keith/Progeny	#Bullet	85.7	55.5	117	35
Pioneer	26R10	84.6	54.1	118	32
Stratton Seed Co	GoWheat 2058	84.5	55.0	116	30
Croplan by Winfield	CP9415	83.9	54.9	118	33
Stratton Seed Co	AGS 2055	83.1	54.2	117	35
Dyna-Gro	9701	82.9	55.0	118	34
USG	3536	82.7	55.2	117	35
USG	3438	82.7	52.9	116	32
Pioneer	26R36	82.1	55.0	118	33
Erwin-Keith/Progeny	#Turbo	82.0	55.8	115	29
Pioneer	26R41	81.8	55.2	117	31
Erwin-Keith/Progeny	#Blaze	81.0	54.5	116	33
TN Exp	TN1702	80.8	55.8	116	32
Dyna-Gro	9522	80.5	54.2	118	33
Croplan by Winfield	CP9606	80.3	54.0	116	32
AgriPro	SY 547	80.1	56.3	114	35
USG	3404	80.0	53.9	119	33
AgriPro	SY Viper	79.7	56.1	114	34
Erwin-Keith/Progeny	#Warrior	79.0	54.3	115	31
Pioneer	26R45	78.8	55.1	117	34
Erwin-Keith/Progeny	#Fury	77.2	56.1	115	32
USG	3895	76.5	54.1	116	30
Pioneer	26R59	76.5	55.4	116	30
Average		81.1	54.9	116.0	32.0
C.V. (%)		14.5	2.0	1.3	7.0

† All yields are adjusted to 13.5% moisture.

‡ n = number of environments

Date headed = no. of days after January 1.

Table 10. Contact information for wheat seed companies evaluated in yield tests in Tennessee during 2019.

Company	Contact	Phone	Email	Web site	Address
AgriMAXX Seed Co	James Yarber	855-629-9432	james.yarber@agrimaxxwheat.com		7167 Highbanks Rd., Mascoutah, IL 62258
AgriPro/Syngenta	Ken Davis	815-953-2041	kenneth.davis@syngenta.com		
Armor Seed	Lane Dill	901-233-0274	lanedill@armorseed.com	www.armorseed.com	P.O. Box 9, Waldenburg, AR 72475
Cache River Valley Seed	Ted Holt	870-477-5427	tedh@crvseed.com	www.crvseed.com	P.O. Box 10, 12470 Hwy 226 E., Cash, AR 72421
Croplan by Winfield	Jason Hinton	804-291-6785	jason@northernstaris.com	www.winfield.com/Farmer/Croplan	10515 115th St. NW, Thief River Falls, MN 56701
Delta Grow Seed	Lee Hughes	501-842-2572	leehughes19@hotmail.com	www.deltagrow.com	P O Box 219, England, AR 72046
Dyna-Gro	Jonathan Fant	731-885-1212	Jonathan.Fant@cpsagu.com	www.dynagroseed.com	710 South First St., Union City, TN 38261
LimaGrain	Gary Moore		gary.moore@limagrain.com	www.limagraincerealseeds.com	
Local Seed Co	Charlie Robinette	662-820-2035	Charlie.Robinette@localseed.com		802 Rozelle St., Memphis, TN 38109
Pioneer Hi-Bred Int.	George Stabler	803-308-1003	george.stabler@pioneer.com	www.pioneer.com	59 Greif Parkway, Suite 200, Deleware, OH 43015
Progeny	Brian Murray	870-238-2079	bmurray@progenyag.com	www.progenyag.com	1529 Hwy 193, Wynne, AR 72396
Steyer Seeds	Joe Steyer	800-231-4274	joesteyer@yahoo.com	www.steyerseeds.com	PO Box 209, Old Fort, OH 44861
Stratton Seed Company	Heath North	800-264-4433	hnorth@strattonseed.com	www.gostrattonseed.com	1530 Hwy 79, South Stuttgart AR 72160
Syngenta	Ken Davis	815-953-2041	kenneth.davis@syngenta.com	https://agriprowheat.com/	726 River Place Drive, Bourbonnais, IL 60914
Tennessee Farmers Co-Op	Bryan Johnson	615-793-8506	bjohnson@ourcoop.com	www.ourcoop.com	180 Old Nashville Hwy, LaVergne, TN 37086
University of Arkansas	Esten Mason	479-387-8899	esten@uark.edu		
University of Tennessee	Dennis West	865-974-8826	dwest3@utk.edu		2505 EJ Chapman Dr. Rm. 212 Plant Biotech Knoxville, TN 37996
University of Georgia	Mohamed Mergoum		mmergoum@uga.edu		Griffin, GA 30223
University of Maryland	Jason Wight	301-4054558	jpwight@umd.edu		4252 Terrapin Trail, College Park, MD, 20742
Unisouth Genetics (USG)	Stacy Burwick David Fandrich Mark Huffstetler Trey Hurt Wes Miller Billy Sellers	645-504-1595 931-967-3377 731-235-2167 731-836-7574 731-536-6251 731-538-2990	sburwick@usgseed.com fandrichsupply@aol.com huffy1@crunet.com hurtco@bellsouth.net wes@obiongrain.com	www.usgseed.com	3205-C HWY 46 South, Dickson, TN 37055 Obion Grain Co. Inc, Obion, TN Sellers Seed, Obion, TN
Virginia Crop Improvement	Tom Hardiman	804-746-4884	rmarkham@vt.edu	www.virginiacrop.org	Virginia Crop Improvement Assoc. 9225 Atlee Branch Lane Mechanicsville, VA 23116