

# Wheat Update 2020

## ARKANSAS WHEAT PERFORMANCE TRIALS AND VARIETY SELECTION

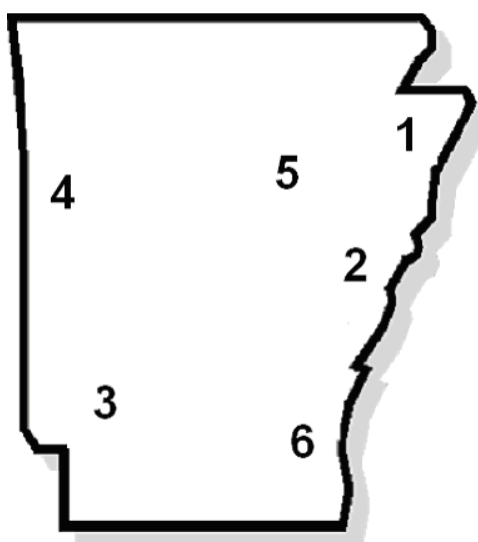
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Wheat performance trials were conducted during the 2019-2020 growing season by the Arkansas Wheat Variety Testing Program under the direction of Dr. Esten Mason to provide information about yield potential, agronomic characteristics, and disease reaction of commercially available and experimental lines/varieties of wheat. Variety selection is very important for successful and profitable wheat production. This publication is a summary of the Arkansas Wheat Variety Testing Program results from only commercially available varieties with 2 or more years of data and is designed to help producers select adapted, high-yielding, and disease-resistant varieties.



**FIGURE 1. LOCATIONS OF ARKANSAS WHEAT PERFORMANCE TESTS**

- 1 – Northeast Research and Extension Center, Keiser – Sharkey Silty Clay
- 2 – Lon Mann Cotton Research Station, Marianna – Loring Silt Loam
- 3 – Southwest Research and Extension Center, Hope – Clay Silt Loam
- 4 – Vegetable Substation, Kibler – Roxanna Silt Loam
- 5 – Newport Extension Center – Beulah Fine Sandy Loam
- 6 – Southeast Branch Station, Rohwer – Herbert Silt Loam

### Methods

Wheat varieties and experimental lines were entered by seed companies and public institutions and evaluated for an unbiased comparison of their performance. In general, recommended cultural practices for wheat production in Arkansas were used. All locations were planted between October 17 and November 23 into conventionally tilled seedbeds using small plot planters.

Each trial consisted of 96 varieties and experimental lines replicated four times in a randomized complete block design. A seeding rate of 105 lb/A was used for all varieties at each location. Recommended production practices were followed and pests were controlled as needed. Plots were harvested with a small plot combine to determine yields, which were adjusted to 13 percent moisture.

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For further details concerning methods and results, consult the *Small-Grain Cultivar Performance Tests 2019-20*, Arkansas Agricultural Experiment Station, located at:  
<https://aes.uark.edu/variety-testing/>

**Table 1. Arkansas Wheat Performance Trials Summary of Commercially Available Varieties, 2019-2020.**

	-----2-year Average Performance (bu/acre)-----						
Entry Name	All Trials*	Keiser**	Kibler	Hope	Marianna	Newport	Rohwer**
Dixie Brown	74.2	60.7	86.8	57.6	79.1	73.2	69.9
Progeny #TURBO	74.1	52.9	80.0	57.1	77.0	82.2	74.2
Progeny #BULLET	71.3	58.6	79.2	62.1	73.5	70.3	74.3
AgriMAXX 496	71.1	---	83.9	63.5	71.8	65.3	---
AgriMAXX 473	70.0	60.5	79.2	58.1	74.1	68.5	77.1
USG 3536	69.4	59.6	82.3	48.7	79.5	66.9	75.4
Delta Grow 1000	69.1	61.0	74.2	60.9	74.2	67.2	82.1
SY 547	69.0	56.0	76.4	63.1	74.6	61.9	71.0
Dyna-Gro 9701	68.6	55.7	72.2	64.7	76.6	60.8	78.8
Dyna-Gro 9811	68.5	63.5	85.2	60.2	74.2	54.4	76.4
Go Wheat 2058	68.5	64.8	71.9	62.4	71.5	68.2	65.6
SY Viper	68.2	49.3	85.5	59.7	67.6	60.1	72.0
Hilliard	68.1	67.9	75.3	63.6	75.1	58.3	77.3
Dixie Bentley	67.8	60.8	72.6	74.3	63.4	60.8	69.5
USG 3329	67.6	53.0	80.5	55.8	67.7	66.3	---
Delta Grow 1800	67.1	58.6	71.2	63.1	68.7	65.4	63.8
Pioneer 26R45	66.3	61.1	71.0	57.9	75.1	61.1	71.7
Pioneer 26R41	66.2	55.6	75.5	55.6	68.8	65.0	79.7
Pioneer 26R59	65.9	57.1	77.4	54.4	70.9	60.7	77.7
USG 3539	65.9	---	71.9	55.6	67.9	68.1	---
AgriMAXX 492	65.0	---	70.4	55.7	63.9	69.8	---
USG 3458	64.9	---	77.1	51.5	71.3	59.6	---
Liberty 5658	64.1	---	76.3	58.5	68.3	53.1	---
AgriMAXX 415	63.7	54.6	69.2	55.2	65.8	64.7	73.4
Dyna-Gro 9941	63.6	---	70.2	51.9	70.5	61.9	---
AGS 2024	63.5	55.5	66.1	65.0	62.1	60.6	---
AGS 2038	63.5	50.8	65.0	63.2	67.8	57.9	72.4
Progeny #BLAZE	63.3	54.5	76.3	60.6	62.9	53.4	70.8
AGS 2055	61.2	63.2	60.0	62.0	65.0	57.9	74.4
Go Wheat 2032	61.1	---	67.6	61.0	58.0	57.6	---
Progeny #FURY	58.8	52.9	66.2	58.9	58.7	51.4	63.4
USG 3640	58.5	44.8	70.9	57.4	53.1	52.7	73.4
Delta Grow 3500	57.0	52.1	58.5	60.1	48.7	60.8	71.1
Pioneer 26R36	56.4	55.8	58.7	51.5	61.8	53.7	85.2
Pioneer 26R10	52.6	51.9	57.9	45.4	58.4	48.7	62.9
Means	65.5	56.9	73.2	58.8	68.2	62.0	73.2

\*Trials with data from 2019 and 2020 only. Includes Hope, Kibler, Marianna, and Newport

\*\*Keiser 2-year average calculated from 2018 and 2020 (no data from 2019)

\*\*Rohwer 2-year calculated from 2017 and 2020 (no data from 2018 or 2019)

**Table 2. Arkansas Wheat Performance Trials Summary of Commercially Available Varieties, 2018-2020.**

	-----3-Year Average Performance (bu/acre)-----					
Entry Name	All Trials*	Keiser**	Kibler	Hope	Marianna	Newport
Dixie Brown	76.3	65.1	85.2	66.8	75.7	77.3
AgriMAXX 473	73.5	63.4	81.6	66.5	74.2	71.6
USG 3536	72.5	63.6	81.1	60.3	77.6	71.0
Delta Grow 1000	71.8	64.6	77.3	68.1	72.5	69.1
Pioneer 26R59	71.4	59.6	80.2	62.0	73.5	69.8
Progeny #BULLET	71.3	63.6	78.6	63.4	72.0	71.2
Dyna-Gro 9701	70.7	61.1	74.8	67.1	75.0	65.9
USG 3329	70.1	---	79.5	64.8	70.0	66.0
Go Wheat 2058	69.4	66.6	71.5	67.5	67.8	70.9
Pioneer 26R41	69.4	61.0	77.8	62.2	69.3	68.4
Pioneer 26R45	69.4	63.9	73.3	61.6	78.7	64.0
Hilliard	69.3	68.4	75.1	67.5	70.3	64.3
SY Viper	68.9	53.9	80.8	62.0	69.8	63.0
Progeny #TURBO	68.7	59.2	68.7	54.1	69.2	82.7
SY 547	68.2	52.3	70.7	62.8	71.0	68.3
Delta Grow 1800	67.7	62.4	70.0	68.3	64.4	67.9
Dyna-Gro 9811	67.6	64.9	77.9	63.9	68.5	60.0
Progeny #BLAZE	67.1	55.1	76.7	65.8	66.6	59.1
AGS 2038	65.7	54.2	62.9	68.3	68.0	63.5
AgriMAXX 415	65.0	58.3	69.6	59.4	65.8	65.3
AGS 2024	64.4	---	68.4	65.9	54.2	69.1
AGS 2055	64.1	66.7	62.7	65.7	65.9	62.2
Dixie Bentley	64.1	64.1	68.3	67.4	54.6	66.2
Pioneer 26R36	62.2	60.7	66.5	58.7	66.9	56.7
Progeny #FURY	60.5	56.5	62.4	58.6	63.1	57.7
Pioneer 26R10	60.2	50.5	64.8	57.1	64.0	55.0
USG 3640	57.8	58.3	61.8	59.9	48.9	60.4
Delta Grow 3500	57.6	52.0	54.1	64.0	44.4	67.7
Means	67.3	60.4	72.2	63.6	67.2	66.2

\*Trials with data each year from 2017-2019, includes Kibler, Hope, Marianna, and Newport.

\*\*Keiser data from 2017, 2018, and 2020.

<b>Table 3. Disease Reactions of Commercially Available Varieties in Arkansas Wheat Performance Trials, 2020.*</b>					
<b>Entry Name</b>	<b>Fusarium Head Blight Severity 0-9**</b>	<b>Fusarium Head Blight Severity 0-9</b>	<b>Septoria Leaf Blotch Severity 0-9</b>	<b>Stripe Rust Severity %**</b>	<b>Bacterial Leaf Streak Severity 0-9</b>
AgriMAXX 415	2	1	3.5	15	1.8
AgriMAXX 473	1	0	2.3	0	1.0
AgriMAXX 492	3	4	3.3	2	2.5
AgriMAXX 496	1	0	2.5	9	1.0
AGS 2024	6	4	3.8	26	2.3
AGS 2038	6	3	3.3	5	3.8
AGS 2055	6	3	3.3	16	3.3
Delta Grow 1000	1	0	2.8	0	1.3
Delta Grow 1800	1	1	2.5	2	1.8
Delta Grow 3500	4	4	2.8	26	2.3
Dixie Bentley	3	1	2	1	2.0
Dixie Brown	1	0	2	2	1.3
Dyna-Gro 9701	1	0	2.8	0	1.3
Dyna-Gro 9811	2	2	2.3	44	2.0
Dyna-Gro 9941	2	0	2.8	5	1.0
Go Wheat 2032	4	4	4	15	3.8
Go Wheat 2058	4	1	2.5	16	2.8
Hilliard	3	1	2.3	0	2.0
Liberty 5658	3	3	3.8	10	2.0
Pioneer 26R10	2	0	3.8	2	2.3
Pioneer 26R36	1	0	3.8	2	2.3
Pioneer 26R41	2	0	3.5	1	1.0
Pioneer 26R45	1	0	3	2	1.5
Pioneer 26R59	2	1	2.8	2	2.3
Progeny #BLAZE	2	0	2.8	1	1.8
Progeny #BULLET	1	0	2.8	15	1.3
Progeny #FURY	4	4	3.3	15	2.5
Progeny #TURBO	1	1	2.3	29	1.3
SY 547	1	1	2	25	1.0
SY Richie	3	2	4	1	2.5
SY Viper	1	1	2.8	2	1.5
USG 3329	2	0	3	1	2.0
USG 3458	3	0	2.3	2	1.0
USG 3536	1	0	2.5	2	1.3
USG 3539	1	0	2.8	2	2.0
USG 3640	3	4	3	23	3.0
<b>Means</b>	<b>2.4</b>	<b>1.3</b>	<b>2.9</b>	<b>8.9</b>	<b>1.9</b>
*Summary of available data from all locations in 2020 trials.					
**Inoculated disease trials at Fayetteville					

<b>Table 4. Agronomic Characteristics of Commercially Available Varieties in Arkansas Performance Trials, 2020.*</b>					
<b>Entry Name</b>	<b>Test Weight Lb/bu</b>	<b>Plant Height Inches</b>	<b>Lodging %</b>	<b>Relative Maturity**</b>	<b>Awned Variety</b>
AgriMAXX 415	57.8	36	3	Medium	Yes
AgriMAXX 473	56.6	39	1	Medium	Yes
AgriMAXX 492	57.7	32	1	Early	Yes
AgriMAXX 496	56.7	35	1	Late	Yes
AGS 2024	57.5	35	9	Medium	Yes
AGS 2038	56.9	36	1	Medium	Yes
AGS 2055	56.9	36	2	Medium	Yes
Delta Grow 1000	56.7	38	1	Late	Yes
Delta Grow 1800	58.5	38	4	Early	Yes
Delta Grow 3500	55.7	31	1	Early	Yes
Dixie Bentley	59.1	38	2	Early	Yes
Dixie Brown	57.4	38	2	Late	Yes
Dyna-Gro 9701	56.6	39	5	Late	Yes
Dyna-Gro 9811	57.7	38	1	Early	Yes
Dyna-Gro 9941	55.3	35	1	Late	Yes
Go Wheat 2032	58.2	34	9	Early	Yes
Go Wheat 2058	57.6	31	1	Medium	Yes
Hilliard	58.1	37	1	Early	Yes
Liberty 5658	57.2	36	1	Early	Yes
Pioneer 26R10	55.2	35	1	Late	Yes
Pioneer 26R36	57.1	35	7	Medium	Yes
Pioneer 26R41	56.9	33	3	Medium	Yes
Pioneer 26R45	56.6	37	2	Medium	No
Pioneer 26R59	56.2	32	1	Medium	No
Progeny #BLAZE	56.5	36	3	Medium	Yes
Progeny #BULLET	57.1	38	2	Late	Yes
Progeny #FURY	57.1	34	2	Early	No
Progeny #TURBO	57.9	35	1	Medium	No
SY 547	57.1	40	2	Medium	No
SY Richie	56.7	35	6	Early	No
SY Viper	57.1	37	1	Early	No
USG 3329	56.6	36	3	Medium	Yes
USG 3458	56.7	35	1	Medium	No
USG 3536	57.5	37	8	Late	Yes
USG 3539	56.9	36	1	Medium	Yes
USG 3640	57.8	37	2	Early	Yes
<b>Means</b>	<b>57.1</b>	<b>36</b>	<b>3</b>	<b>---</b>	<b>---</b>
*Summary of commercially available entries in 2020 trials.					
**Based on heading date					