

2022 Hill County Preliminary Report

Wheat



Preliminary Data Compiled by:

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Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.

July 14, 2022

Dear Producer,

This preliminary report contains information on variety testing and applied research in wheat conducted over the past growing season. It is always good to review several years of data before making conclusions.

Also included are data from the Blackland Region to offer additional information. Additionally, charts with varietal characteristics have been included. Utilize this with the understanding that some characteristics may change slightly once 2022 information has been finalized. Please visit the website varietytesting.tamu.edu for more information on wheat and additional crops.

Results from our replicated trials include a statistical analysis. Significant differences among data means will be marked with a letter. Means that are not significantly different are considered equal; i.e. the difference in their values is because of random chance and not because of variety differences or trial variables. Test weight data may be off due to the trials low yielding environment. Test weight data for the SRWW, Blacklands Regional Summary is accurate and based on test weights from trials in McGregor, Muenster, and Prosper.

We would like to thank P&M Farms, Phil Pustejovsky and Ronnie Marak, for their willingness to be cooperating producers with Texas A&M AgriLife Extension Service on the variety trials. We truly could not do our work without the help of Hill County producers. Additionally, special appreciation is extended to Mr. Russell Sutton, Texas A&M AgriLife – Assistant Research Scientist, for implementing the variety trials, and Russ Garetson, Extension Program Specialist I - Small Grains and Oil Seed Crops, for the statistical analyses of data.

Please do not hesitate to contact us with any questions or comments.



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2022 Uniform Variety Trial: HRWW, Hill County (Abbott, TX)

Rank [†]	Variety	Source	Yield	Test Wt
			(bu/ac)	(lb/bu)
			2022	2022
1	TX16M9216*	TAMU	57.5	54.8
2	WB4418	WestBred	57.1	54.1
3	Bob Dole	Syngenta	55.9	55.0
4	WB4523	WestBred	55.0	50.4
5	TX15M8024*	TAMU	49.0	54.5
6	Big Country	OSU	48.7	50.1
7	TX14V70214*	TAMU	48.6	51.9
8	AP Roadrunner	Syngenta	48.6	51.2
9	TAM304	Scott Seed	44.7	49.3
10	TX14M7061*	TAMU	44.5	52.7
11	WB4699	WestBred	44.5	50.7
12	TX14A001249*	TAMU	41.1	51.3
13	TX14A001035*	TAMU	39.6	54.8
14	TAMW101	TAMU	34.0	48.8
15	CP1200045#142*	Croplan	30.3	48.0
LSD (0.05)			6.9	4.8
CV (%)			8.8	5.6
Mean			46.6	51.8

*Experimental breeding line.

†Varieties ranked according to 2022 yield averages.

2022 Uniform Variety Trial: HRWW, Hill County (Abbott, TX)

Rank [†]	Variety	Source	Yield (bu/ac)				Test Wt (lb/bu)
			4-Year [‡]	3-Year	2-Year	2022	2022
1	Bob Dole	Syngenta	57.6	54.7	52.7	55.9	55.0
2	WB4418	WestBred	52.6	50.7	48.9	57.1	54.1
3	WB4699	WestBred	51.1	43.1	35.0	44.5	50.7
4	TAM304	Scott Seed	49.4	43.5	36.9	44.7	49.3
5	TAMW101	TAMU	35.4	34.1	27.9	34.0	48.8
6	TX14A001035	TAMU		49.5	42.4	39.6	54.8
7	TX15M8024	TAMU		49.1	43.5	49.0	54.5
8	TX14V70214	TAMU		48.0	39.5	48.6	51.9
9	TX14M7061	TAMU		46.4	41.2	44.5	52.7
10	TX16M9216	TAMU			49.7	57.5	54.8
11	AP Roadrunner	Syngenta			42.3	48.6	51.2
12	TX14A001249	TAMU			38.3	41.1	51.3
13	WB4523	WestBred				55.0	50.4
14	Big Country	OSU				48.7	50.1
15	CP1200045#142	Croplan				30.3	48.0
	LSD (0.05)		3.6	3.9	4.5	6.9	4.8
	CV (%)		8.7	8.8	9.2	8.8	5.6
	Mean		49.2	46.6	41.5	46.6	51.8

*Experimental breeding line.

†Varieties ranked according to 4-year, 3-year, 2-year, then 2021 yield averages.

‡4-year average based on 2019, 2020, 2021, and 2022 data.

2022 Uniform Wheat Variety Trial: HRWW, Blacklands Regional Summary

Rank†	Variety	Source	Yield (bu/ac)				Test Wt (lb/bu)	
			AVG	Hillsboro	McGregor	Muenster	Prosper	2022 AVG
1	Bob Dole	Syngenta	63.5	55.9	44.3	81.2	72.4	58.5
2	WB4418	WestBred	62.4	57.1	48.5	72.4	71.7	58.4
3	TX15M8024*	TAMU	61.5	49.0	49.6	81.5	66.1	58.2
4	TX16M9216*	TAMU	61.5	57.5	50.8	66.3	71.5	59.4
5	AP Roadrunner	Syngenta	61.4	48.6	48.0	77.6	71.3	57.0
6	Big Country	OSU	61.1	48.7	45.3	81.4	69.0	57.9
7	TAM304	Scott Seed	60.6	44.7	41.7	81.2	74.8	56.1
8	WB4523	WestBred	60.3	55.0	45.8	70.8	69.7	56.4
9	TX14V70214*	TAMU	59.2	48.6	42.7	77.8	67.8	58.2
10	WB4699	WestBred	57.1	44.5	41.4	73.0	69.4	56.3
11	TX14A001249*	TAMU	55.5	41.1	34.6	75.8	70.5	58.1
12	TX14A001035*	TAMU	55.1	39.6	32.6	81.8	66.4	59.7
13	TX14M7061*	TAMU	53.6	44.5	37.2	67.0	65.6	57.1
14	CP1200045#142*	Croplan	52.8	30.3	32.7	71.9	76.5	56.6
15	TAMW101	TAMU	48.6	34.0	31.1	68.8	60.7	56.4
	LSD		3.0	6.8	4.5	8.9	5.8	1.1
	CV(%)		7.6	8.8	9.3	7.1	5.0	2.6
	Mean		58.3	46.6	41.8	75.2	69.6	57.6

*Experimental breeding line.

†Varieties ranked according to 4-location yield average.

2022 Uniform Variety Trial: SRWW, Hill County (Abbott, TX)

Rank†	Variety	Source	2022
1	LA1602LDH-22*	SunGrains- LSU	72.9
2	Go Wheat 6000	Stratton Seed	63.9
3	AR09137UC-17-2*	SunGrains-University of Arkansas	63.9
4	Dyna-Gro 9393	Dyna-Gro	63.7
5	Blackland 2167 EXP*	Blackland Seeds	63.2
6	Blackland 2034	Blackland Seeds	62.3
7	AGS 2055	Stratton Seed	62.0
8	Dyna-Gro 9172	Dyna-Gro	61.8
9	GA 151313-LDH224-19E38*	SunGrains-University of Georgia	61.4
10	TX16DDH579*	SunGrains- Texas A&M AgriLife Res.	60.4
11	Delta Grow 3500	Delta Grow Seed Co. Inc.	60.3
12	Dyna-Gro 9002	Dyna-Gro	59.2
13	Go Wheat 2032	Stratton Seed	59.0
14	USG 3472	Uni-South Genetics	58.4
15	TX17D2337*	SunGrains- Texas A&M AgriLife Res.	58.1
16	Dyna-Gro 9701	Dyna-Gro	57.7
17	Dyna-Gro 9120	Dyna-Gro	57.1
18	Progeny Buster	Prongeny	55.2
19	FL15105-LDH039*	SunGrains- University of Florida	55.0
20	Dyna-Gro WX20738	Dyna-Gro	54.4
21	GA 11052-19LE15*	SunGrains-University of Georgia	54.0
22	LA15203-LDH112*	SunGrains- LSU	54.0
23	Delta Grow 1800	Delta Grow Seed Co. Inc.	52.4
24	Dyna-Gro 9811	Dyna-Gro	51.6
25	GA 111055-19LE12*	SunGrains - University of Georgia	51.6
26	Blackland 1812	Blackland Seeds	51.2
27	FL16045LDH-25*	SunGrains - University of Florida	50.2
28	WB 2606	WestBred	50.2
29	Delta Grow 1200	Delta Grow Seed Co. Inc.	49.8
30	TX18D3212*	SunGrains - Texas A&M AgriLife Res.	49.7
31	GANC 12642-19LE16F*	University of Georgia	48.6
32	AR11051-15-3*	SunGrains-University of Arkansas	46.5
33	LA15203-LDH274*	SunGrains - LSU	45.7
34	Go Wheat LA754	Stratton Seed	45.5
35	Progeny Chad	Prongeny	43.2
36	AgriMAXX 514	AgriMAXX	41.6
37	LA13154D-WN1*	SunGrains- LSU	41.5
38	LA12275LDH-56*	SunGrains- LSU	40.3
39	Progeny 19-12	Prongeny	40.2
40	GA 121012-19LE8*	SunGrains - University of Georgia	38.4
41	AgriMAXX 492	AgriMAXX	37.9
42	USG 3895	Uni-South Genetics	37.1
43	FL16009LDH-16*	SunGrains - University of Florida	36.6
44	Blackland 1828	Blackland Seeds	36.5
45	USG 3329	Uni-South Genetics	35.9
46	GA 151254-LDH071-19E32*	SunGrains - University of Georgia	32.9
47	USG 3352	Uni-South Genetics	27.8
48	AgriMAXX 503	AgriMAXX	27.7
LSD (0.05)			7.8
CV (%)			9.5
Mean			50.6

*Experimental breeding line.

†Varieties ranked according to 2022 yield averages.

4-Year Uniform Variety Trial: SRWW, Hill County (Abbott, TX)

Rank†	Variety	Source	Yield (bu/ac)			
			4-Year‡	3-Year	2-Year	2022
1	Go Wheat 2032	Stratton Seed	56.6	58.0	57.5	59.0
2	Go Wheat 6000	Stratton Seed	55.9	57.7	57.0	63.9
3	Go Wheat LA754	Stratton Seed	55.3	56.1	56.1	45.5
4	AGS 2055	Stratton Seed	55.3	56.3	54.8	62.0
5	USG 3895	Uni-South Genetics	55.1	55.9	54.5	37.1
6	TX16DDH579*	SunGrains- Texas A&M AgriLife Res.		60.6	60.1	60.4
7	AgriMAXX 492	AgriMAXX		57.8	56.7	37.9
8	Dyna-Gro 9811	Dyna-Gro		57.4	56.1	51.6
9	Blackland 1812	Blackland Seeds		56.1	54.6	51.2
10	Dyna-Gro 9002	Dyna-Gro		54.7	51.8	59.2
11	USG 3329	Uni-South Genetics		54.2	50.6	35.9
12	LA12275LDH-56*	SunGrains- LSU			59.8	40.3
13	TX17D2337*	SunGrains- Texas A&M AgriLife Res.			57.5	58.1
14	AR11051-15-3*	SunGrains-University of Arkansas			57.4	46.5
15	AR09137UC-17-2*	SunGrains-University of Arkansas			57.0	63.9
16	WB 2606	WestBred			55.4	50.2
17	USG 3472	Uni-South Genetics			55.2	58.4
18	LA13154D-WN1*	SunGrains- LSU			54.8	41.5
19	Dyna-Gro 9120	Dyna-Gro			54.4	57.1
20	AgriMAXX 514	AgriMAXX			52.8	41.6
21	Blackland 1828	Blackland Seeds			52.7	36.5
22	LA16020LDH-22*	SunGrains- LSU				72.9
23	Dyna-Gro 9393	Dyna-Gro				63.7
24	Blackland 2167 EXP*	Blackland Seeds				63.2
25	Blackland 2034	Blackland Seeds				62.3
26	Dyna-Gro 9172	Dyna-Gro				61.8
27	GA 151313-LDH224-19E38*	SunGrains-University of Georgia				61.4
28	Delta Grow 3500	Delta Grow Seed Co. Inc.				60.3
29	Dyna-Gro 9701	Dyna-Gro				57.7
30	Progeny Buster	Prongeny				55.2
31	FL15105-LDH039*	SunGrains- University of Florida				55.0
32	Dyna-Gro WX20738	Dyna-Gro				54.4
33	GA 11052-19LE15*	SunGrains-University of Georgia				54.0
34	LA15203-LDH112*	SunGrains- LSU				54.0
35	Delta Grow 1800	Delta Grow Seed Co. Inc.				52.4
36	GA 111055-19LE12*	SunGrains - University of Georgia				51.6
37	FL16045LDH-25*	SunGrains - University of Florida				50.2
38	Delta Grow 1200	Delta Grow Seed Co. Inc.				49.8
39	TX18D3212*	SunGrains - Texas A&M AgriLife Res.				49.7
40	GANC 12642-19LE16F*	University of Georgia				48.6
41	LA15203-LDH274*	SunGrains - LSU				45.7
42	Progeny Chad	Prongeny				43.2
43	Progeny 19-12	Prongeny				40.2
44	GA 121012-19LE8*	SunGrains - University of Georgia				38.4
45	FL16009LDH-16*	SunGrains - University of Florida				36.6
46	GA 151254-LDH071-19E32*	SunGrains - University of Georgia				32.9
47	USG 3352	Uni-South Genetics				27.8
48	AgriMAXX 503	AgriMAXX				27.7
	LSD (0.05)		0.9	1	1.8	7.8
	CV (%)		1.7	1.5	1.9	9.5
	Mean		55.7	56.8	55.6	50.6

*Experimental breeding line.

†Varieties ranked according to 4-year, 3-year, 2-year, then 2022 yield averages.

‡ 4-year average based on 2019, 2020, 2021 and 2022 data.

2022 Uniform Wheat Variety Trial: SRWW, Blacklands Regional Summary

Rank†	Variety	Source	Yield (bu/ac)				Test Wt (lb/bu)	
			AVG	Hillsboro	McGregor	Muenster	Prosper	2022 AVG
1	LA16020LDH-22	SunGrains- LSU	73.1	72.9	68	81.6	69.7	59.6
2	TX17D2337	SunGrains- Texas A&M AgriLife Res.	69.6	58.1	64.4	76.9	78.9	59
3	Dyna-Gro 9393	Dyna-Gro	68.0	63.7	54.1	78.6	75.6	57
4	TX16DDH579	SunGrains- Texas A&M AgriLife Res.	67.4	60.4	65	75.1	68.9	59.5
5	AR09137UC-17-2	SunGrains-University of Arkansas	66.4	63.9	55.5	75.5	70.5	58.1
6	Blackland 2167 EXP	Blackland Seeds	66.3	63.2	53.5	72.6	75.8	56.8
7	Dyna-Gro 9120	Dyna-Gro	65.8	57.1	53.9	78.2	73.8	58.4
8	GA 151313-LDH224-19E38	SunGrains-University of Georgia	64.8	61.4	50.6	86.2	61.1	58.7
9	Dyna-Gro 9002	Dyna-Gro	64.5	59.2	51.2	76	71.4	57.1
10	GA 111055-19LE12	SunGrains - University of Georgia	64.2	51.6	53.8	80.3	71.1	57.5
11	Dyna-Gro 9172	Dyna-Gro	64.1	61.8	53.2	74.5	67	57.7
12	USG 3472	Uni-South Genetics	64.1	58.4	52.6	76.1	69.3	57.9
13	Delta Grow 1200	Delta Grow Seed Co. Inc.	64.1	49.8	49.2	86.6	70.6	56.7
14	Progeny Buster	Prongeny	63.0	55.2	53.4	72.7	70.8	58.3
15	Go Wheat 6000	Stratton Seed	62.9	63.9	53.5	74.6	59.6	58.1
16	Blackland 2034	Blackland Seeds	62.6	62.3	47.3	69.6	71.2	57.6
17	GA 11052-19LE15	SunGrains-University of Georgia	62.5	54	50.2	72.8	73.1	58
18	GANC 12642-19LE16F	University of Georgia	62.5	48.6	47.4	85.3	68.6	58.5
19	AGS 2055	Stratton Seed	62.4	62	56.5	68.9	62.1	57.3
20	FL16045LDH-25	SunGrains - University of Florida	61.9	50.2	54.9	79.3	63	59.6
21	WB 2606	WestBred	60.8	50.2	47.9	81.1	63.9	57.2
22	TX18D3212	SunGrains - Texas A&M AgriLife Res.	60.7	49.7	52.3	71.7	69	57.5
23	Go Wheat 2032	Stratton Seed	60.5	59	57.8	71.6	53.6	59
24	Dyna-Gro 9811	Dyna-Gro	60.4	51.6	49.3	71.6	68.9	57.7
25	Delta Grow 1800	Delta Grow Seed Co. Inc.	60.1	52.4	48.4	74.4	65.1	59
26	Dyna-Gro WX20738	Dyna-Gro	60.0	54.4	48.2	74.6	62.8	57.1
27	Blackland 1812	Blackland Seeds	59.5	51.2	49.8	70.2	66.7	57.2
28	Dyna-Gro 9701	Dyna-Gro	58.9	57.7	45.8	70.6	61.6	57.2
29	AgriMAXX 492	AgriMAXX	58.3	37.9	39.3	86.1	70	51.4
30	Go Wheat LA754	Stratton Seed	56.7	45.5	44.4	75.6	61.2	57.5
31	USG 3329	Uni-South Genetics	56.3	35.9	35.9	87	66.2	56.3
32	USG 3895	Uni-South Genetics	56.1	37.1	31.9	83.5	71.7	56.1
33	Progeny 19-12	Prongeny	55.9	40.2	40.6	68.9	73.7	56.6
34	AgriMAXX 514	AgriMAXX	55.8	41.6	40.6	69.2	71.7	56.4
35	LA15203-LDH112	SunGrains- LSU	55.6	54	33.7	71.2	63.4	58
36	Progeny Chad	Prongeny	55.4	43.2	39.3	66.4	72.6	56.9
37	Blackland 1828	Blackland Seeds	54.8	36.5	39.6	71.4	71.5	56.8
38	AR11051-15-3	SunGrains-University of Arkansas	54.5	46.5	39.5	71.6	60.2	58.3
39	LA15203-LDH274	SunGrains - LSU	54.1	45.7	45.1	77.5	47.9	58.7
40	Delta Grow 3500	Delta Grow Seed Co. Inc.	53.7	60.3	32.7	63.1	58.7	59.1
41	FL15105-LDH039	SunGrains- University of Florida	53.5	55	51.9	72.9	34.1	59.5
42	LA12275LDH-56	SunGrains- LSU	53.2	40.3	32.5	76.8	63.3	58.1
43	LA13154D-WN1	SunGrains- LSU	52.9	41.5	41.7	74	54.4	57.3
44	GA 121012-19LE8	SunGrains - University of Georgia	50.5	38.4	42.5	60.5	60.6	58.2
45	AgriMAXX 503	AgriMAXX	49.3	27.7	21.1	81.2	67.1	56
46	GA 151254-LDH071-19E32	SunGrains - University of Georgia	49.2	32.9	31.6	69.2	63.1	57.2
47	FL16009LDH-16	SunGrains - University of Florida	47.2	36.6	38.6	71.5	42	55.5
48	USG 3352	Uni-South Genetics	45.3	27.8	28.6	70	54.9	55.9
LSD (0.05)			5.2	7.8	7.9	15.4	9.0	2.8
CV (%)			10.9	9.5	10.3	12.7	8.5	5.3
Mean			59.3	50.6	46.6	74.9	65.3	57.6

*Experimental breeding line.

†Varieties ranked according to 4-location yield average.

Impact of Saved versus Certified West Bred Cedar On Yield, When Planted at Three Seeding Rates

Table 1. West Bred Cedar yield and test weight from different saved and certified seed sources.

Seed Source	Yield (bu./acre)	Test weight
Saved	43.72 a	51.83
Certified	39.70 b	51.56
<i>LSD p=0.05</i>	3.178	2.317

Table 2. Impact of three seeding rates on the yield and test weight of West Bred Cedar from two seed sources.

Seeding Rate	Yield (bu./acre)	Test weight
750,000 seeds/ac	42.65 ab	50.20 b
1,000,000 seeds/ac	43.24 a	53.78 a
1,250,000 seeds/ac	39.23 b	51.10 ab
<i>LSD p=0.05</i>	3.89	2.838

Table 3. Yield and test weight of West Bred Cedar from two different seed sources, and planted at three different seeding rates

Seed Source	Seeding Rate	Yield (bu./acre)	Test weight
Saved	750,000 seeds/ac	44.43	50.3
	1,000,000 seeds/ac	44.77	54.38
	1,250,000 seeds/ac	42.08	51.08
Certified	750,000 seeds/ac	40.97	50.38
	1,000,000 seeds/ac	41.71	53.18
	1,250,000 seeds/ac	36.39	51.13

Impact of Fungicide and Insecticide Seed Treatment on Wheat stand development, Hessian Fly, and Yield.

Cooperator: P&M Farms
D. Tyler Mays
Zach Davis

Table 1. Hessian fly infestations and yield for Hill County, 2022

Treatment	Hessian Fly per tiller	% Tillers infested	Yield
Untreated Check	0.213	15	52.79
Vibrance Extreme	0.05	5	52.97
Cruiser 5FS	0.2	12.5	51.65
Cruiser 5FS plus Vibrance Extreme	0.138	8.8	52.50

Wheat Fungicide Program Performance in a Susceptible and Resistant Rust Variety

Cooperators: P&M Farms
D. Tyler Mays
Zach Davis

Two varieties were evaluated for this trial including West Bred 4515 which was susceptible to leaf rust and TAM 205 which is rated resistant to leaf rust. A total of five different fungicide programs were evaluated including an untreated check, propiconazole at 4 fl oz./acre followed by 4 fl oz/ tebuconazole, Alto @ 3 fl. oz./acre followed by Trivapro 13.7 fl oz./acre, Trivapro @ 9 fl oz./acre followed by Alto at 3 fl. oz./acre, and Trivapro @ 5 fl. oz/acre followed by Alto at 1.5 fl oz./acre. All fungicide applications were made using a CO2 backpack sprayer calibrated to apply 13.9 gal./acre, and applications were made at Feekes 7 (two nodes visible) and Feekes 10.5.1 (start of anthesis). The variety, fungicide program, and fungicide program by variety had a significant impact on the severity of leaf rust on the flag leaf, but only the variety had a significant impact on the yield. Based on these results, under a light leaf rust pressure fungicide application to a rust resistant variety can significantly reduce the amount of leaf rust on the flag leaf compared to an untreated rust susceptible variety, but the fungicide does not significantly reduce the amount of leaf rust on the flag leaf compared to an untreated rust resistant variety. Looking at the fungicide programs only, all programs can significantly reduce the amount of leaf rust observed on the flag leaf, but do not have a significant impact on yields, even though yields were numerically higher in the fungicide treatments. The result of this trial also indicate that rust resistance rating can also have a statistical impact on the severity of leaf rust and even yield. However, yield results between variety should be looked at loosely as Hessian fly likely had a major impact on the yield of TAM 205. The wheat variety TAM 205 is very susceptible to Hessian fly, which were very bad during the 2021-2022 wheat production season. Two major observations from this trial include variety selection can have a major impact on the severity of leaf rust and potentially yield, and that the application of fungicides, especially to susceptible varieties can significantly reduce the severity of leaf rust.

Table 1. Leaf rust severity, yield and net return per acre by variety, during 2022 in Hill County, TX

Wheat Variety	Leaf Rust Severity	Yield (bu/acre)	Net Returns (\$/acre)
West Bred 4515	3.4 a	48.75 a	\$501.2 a
TAM 205	0.4 b	19.22 b	\$191.18 b
<i>LSD (p=0.05)</i>	1.87	2.639	27.7155

Table 2. Leaf rust severity, yield, and net return per acre by fungicide program, during 2022 in Hill County, TX

Fungicide Program	Leaf Rust Severity	Yield (bu/acre)	Fungicide Cost (\$/acre)	Net Returns (\$/acre)
Untreated	9.0 a	30.21	\$0.00	\$317.19
Propiconazole @ 4 fl oz. fb Tebuconazole 4 fl oz.	0.2 b	34.67	\$7.54	\$356.57
Alto@ 3 fl oz. fb Trivapro @ 13.7 fl oz.	0.1 b	34.56	\$21.96	\$340.91
Trivapro @ 9 fl oz fb Alto @ 3 fl oz.	0.1 b	34.05	\$15.48	\$342.06
Trivapro @ 5 fl oz fb Alto @ 1.5 fl oz	0.0 b	36.44	\$8.39	\$374.22
<i>LSD (p=0.05)</i>	3.36	<i>ns</i>	-	<i>ns</i>

Table 3. Rust severity, yield, and net return by variety and fungicide program, during 2022 in Hill County, TX

Variety	Fungicide Program	Leaf Rust Severity	Yield (bu/acre)	Fungicide Cost (\$/acre)	Net Returns (\$/acre)
WB 4515	Untreated	16.4a	42.72	\$0.00	\$448.52
	Propiconazole @ 4 fl oz. fb Tebuconazole 4 fl oz.	0.4 b	50.07	\$7.54	\$518.20
	Alto@ 3 fl oz. fb Trivapro @ 13.7 fl oz.	0 b	49.78	\$21.96	\$500.71
	Trivapro @ 9 fl oz fb Alto @ 3 fl oz.	0.1 b	50.78	\$15.48	\$517.69
	Trivapro @ 5 fl oz fb Alto @ 1.5 fl oz	0 b	50.41	\$8.39	\$520.90
TAM 205	Untreated	1.5 b	17.7	\$0.00	\$185.85
	Propiconazole @ 4 fl oz. fb Tebuconazole 4 fl oz.	0 b	19.28	\$7.54	\$194.94
	Alto@ 3 fl oz. fb Trivapro @ 13.7 fl oz.	0.2 b	19.34	\$21.96	\$181.11
	Trivapro @ 9 fl oz fb Alto @ 3 fl oz.	0.1 b	17.32	\$15.48	\$166.42
	Trivapro @ 5 fl oz fb Alto @ 1.5 fl oz	0 b	22.47	\$8.39	\$227.55
<i>LSD (p=0.05)</i>		<i>4.19</i>	<i>ns</i>	-	<i>ns</i>

Texas 2021 Hard Red Winter Wheat Characteristics¹

Variety	Company	First Year Sold	Maturity Group	Height (inches)	Leaf Rust	Stripe Rust	Stem Rust	Septoria Leaf Blotch	Tan Spot	Powdery Mildew	Wheat Streak Mosaic	Barley Yellow Dwarf	Green-bug	Hessian Fly
Baker's Ann	OSU	2018	Early*	Tall	MR*	R*	-	MR*	MR*	Intermediate	-	Intermediate	-	S*
Bob Dole	Syngenta	2018	Medium*	-	R*	MR*	MR*	-	-	MR*	S*	-	-	S*
CP7010	Croplan	2020	Medium*	-	R	S	-	-	-	-	-	-	-	-
CP7869	Croplan	2019	Med Late*	-	R	MR	R*	-	-	-	-	-	-	-
Gallagher	OSU	2013	Medium	31	S	R	MR	-	-	MR	-	-	-	R
Green Hammer	OSU	2018	-	-	R*	R*	-	-	-	-	-	-	-	MR*
Greer	Syngenta	2010	Medium	32	S	MR	R	-	-	S	-	-	-	MS
Iba	OSU	2013	Medium	32	MS	MR	R	-	-	MR	-	-	-	MS
LCS Chrome	Limagrain	2017	Med Late*	32	R*	R*	S*	-	-	-	MS*	R*	-	R*
LCS Mint	Limagrain	2012	Med Late	33	S	MR	R	-	-	MS	-	-	-	S
Lonerider	OSU	2017	Early*	-	MR*	MS*	-	-	-	S*	-	-	-	MS*
PlainsGold Canvas	PlainsGold	2018	Medium*	-	MS*	R*	R*	-	-	-	MR*	-	-	-
PlainsGold Guardian	CSU	2019	Medium	Medium	R	R	R	-	-	-	R	-	-	-
PlainsGold Langin	PlainsGold	2016	Early*	-	MR*	R*	-	-	-	-	MS*	-	-	-
Showdown	OSU	2018	-	-	MR*	MS*	-	-	-	-	-	MS*	-	R*
Spirit Rider	Unknown	2017	Intermediate	31	MR*	MR*	MR*	MR*	MR*	Intermediate	MS*	MS*	-	-
SY Flint	Syngenta	2015	Med Early*	31	S	MR*	R*	-	-	MS*	MS*	MS*	-	-
SY Grit	Syngenta	2016	Medium*	31	S	R	R	-	-	MS	-	-	-	-
SY Monument	Syngenta	2015	Med Late*	31	MR	MR	MR	-	-	MS	-	MR	-	-
SY Rugged	Syngenta	2017	Med Early*	29	MS	R*	-	-	-	-	-	-	-	MS
TI58	Limagrain	2009	Medium	30	MS	MR	MS	-	-	MR	MS	-	-	S
TAM 111	Syngenta	2003	Medium	32	S	S	R	MR	MR	MR	MS	MS	S	MS
TAM 112	Wattley Seed	2005	Med Early	30	S	S	R	MR	MR	R	MR	MS	R	S
TAM 113	Adaptive Genetics	2012	Medium	32	R	R	R	-	-	MS	MS	-	-	S
TAM 114	Adaptive Genetics	2014	Medium	32	MR	R	R	-	-	MR	MS	-	S	S*
TAM 115	Wattley Seed	2019	Late	-	R	R	R	-	-	R	MR	-	R	-
TAM 204**	Wattley Seed	2014	Medium	32	S	MR	R	-	-	MR	MR	-	R	R
TAM 205	Adaptive Genetics	2019	Late	-	R	R	R	-	-	-	R	-	-	-
TAM 304	Scott Seed	2007	Med Early	30	MR	MS	R	-	MS	MR	MS	MS	S	R
TAM 401**	Syngenta	2008	Early	32	MS	R	R	-	-	MR	MS	-	S	MS
TAM W-101	TAMU	1971	Med Late	31	MS	MS	R	-	-	S	-	-	-	S
WB 4269	WestBred	2016	Med Early*	-	MS	MR*	-	-	-	-	-	-	-	S
WB 4303	WestBred	2016	Medium*	-	S	MS	-	-	-	S	-	-	-	-
WB 4418	WestBred	2015	Med Late	-	S	MS	-	-	-	-	-	-	-	-
WB 4515	WestBred	2016	Med Early*	-	S	MR	MR	-	-	MR	-	-	-	S
WB 4595	WestBred	2019	Medium	28	-	MR	R	-	MS	S	-	MR	-	-
WB4699	WestBred	2018	Med Late*	-	MR*	MR*	-	-	MR*	R*	MS*	MR*	-	MS*
WB 4792	WestBred	2018	Med Late*	-	R*	MR*	-	-	MS*	S*	MS*	MR*	-	MR*
WB Cedar	WestBred	2011	Early	26	S	MR	R	-	-	MR	-	-	-	S*
Weathermaster 135**	Unknown	Unknown	Medium	27	MR	MS	S	-	-	MS	-	-	-	-
Winterhawk	WestBred	2007	Medium	32	MS	MR	S	-	-	MS	-	-	-	S

¹ S - Susceptible, MS - Moderately Susceptible, MR - Moderately Resistant, I - Intermediate, and R - Resistant.

*Heights are an average across the Texas Panhandle in 2014.

**Indicates rating NOT necessarily observed in Texas trials, but from other sources.

***Awless.

Texas 2021 Soft red Winter Wheat Characteristics¹

Variety	Company	First Year Sold	Maturity Group	Leaf Rust	Stripe Rust	Awned/Awnless	Hessian Fly
#Fury	Progeny	--	Medium	R	R*	Awnless	MS
#Turbo	Progeny	--	Medium	R	R	Awnless	--
AgriMAXX 481	AgriMAXX	--	Early	MR*	MR*	Awned	--
AgriMAXX 492	AgriMAXX	--	Medium	--	--	Awned	--
AGS 2024	AgSouth Genetics	2015	Early	R	MR	Awned	MS
AGS 2038	AgSouth Genetics	2012	Medium Late	R	R	Awned	MS
AGS 2055	AgSouth Genetics	2016	Medium	R	R	Awned	R
AGS 2040	AgSouth Genetics	--	Early	R*	R*	Awned	--
AGS 3000	AgSouth Genetics	2016	Early	MR	R	Awned	R
AGS 3015	AgSouth Genetics	--	Early	--	--	Awned	--
AGS 3040	AgSouth Genetics	--	Medium	--	--	Tip-Awned	--
Blackland 1812	Blackland Seeds	2018	Medium Late	--	--	Awned	--
Blackland 1825	Blackland Seeds	--	Late	--	MS	Awned	--
Blackland 1881	Blackland Seeds	2018	Medium	MR	--	Awned	--
Blackland 1885	Blackland Seeds	2018	Medium Late	R	--	Awned	--
Dyna-Gro 9002	Dyna-Gro Seeds	--	Medium Late	--	--	--	--
Dyna-Gro 9701	Dyna-Gro Seeds	--	Medium Early	R*	R*	Awned	MR
Dyna-Gro 9811	Dyna-Gro Seeds	--	Medium Early	R*	R*	Awned	--
Dyna-Gro Blanton	Dyna-Gro Seeds	--	Early	--	--	Awned	--
Dyna-Gro Plantation	Dyna-Gro Seeds	--	Early	--	--	Awned	--
Dyna-Gro Riverland	Dyna-Gro Seeds	--	Early	--	--	Awned	--
Dyna-Gro Runtledge	Dyna-Gro Seeds	--	Early	--	--	Awned	--
Dyna-Gro Savoy	Dyna-Gro Seeds	--	Early	R	R	Awnless	R
Dyna-Gro TV8861	Dyna-Gro Seeds	--	Medium Late	S	R*	Awned	--
Go Wheat 6000	Stratton Seed Co.	2019	Medium	MR	R	Awned	MR
Go Wheat LA754	Stratton Seed Co.	--	Early	R	MS	--	--
GoWheat 2032	Stratton Seed Co.	--	Medium Early	R	--	Awned	R
GoWheat LA754	Stratton Seed Co.	--	Early	R	--	Awned	MS
Pioneer 25R40	Corteva	--	Late	S	MR	Awned	MS
USG 3118	UniSouth Genetics	--	Early	R*	MR*	Awned	--
USG 3120	UniSouth Genetics	2010	Early	R	MS	Awned	R
USG 3329	UniSouth Genetics	--	Medium Late	R	MS	Awned	--
USG 3458	UniSouth Genetics	2017	Medium	MR*	R*	Awnless	--
USG 3536	UniSouth Genetics	2016	Medium Late	MR	R	Awned	MR
USG 3539	UniSouth Genetics	--	Late	MR*	MR*	Awned	--
USG 3640	UniSouth Genetics	--	Medium	R*	MR*	Awned	--
USG 3895	UniSouth Genetics	2015	Medium Late	R	R	Awned	S
WB 2418	WestBred	2018	Medium Late	R	R	Tip-Awned	--
WB2606 brand	WestBred	2019	Late	--	--	Awned	--

¹S - Susceptible, MS - Moderately Susceptible, MR - Moderately Resistant, and R - Resistant.

ALL ratings are subject to change as re-evaluation occurs.

*Indicates rating NOT necessarily observed in Texas trials, but from other sources.