

2023 Hill County Preliminary Report

Wheat



Preliminary Data Compiled by:

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Texas Locations Agronomic Data

Blacklands: 2023

Location	Cooperator(s)	Yield limiting issues	Planting date	Fertilizer (Total lb N/ac)	Seeding Rate	Pesticide applied (date)
Hillsboro	P&M Farms	Hessian fly	11/10/2022	110	68 lbs/ac (SRWW) 750K Seed/ac (HRWW)	None
McGregor	Texas A&M Agrilife Research Farm	Hessian fly	11/9/2022	130	68 lbs/ac (SRWW) 750K Seed/ac (HRWW)	Metribuzin (12/14/2022)

¹All locations were planted into conventionally tilled seedbeds and were grown under rain-fed conditions.

2023 Uniform Wheat Variety Trial: HRWW, Blacklands Regional Summary

Rank [†]	Variety	Source	Yield (bu/a)			Test Wt (lb/bu)
			AVG	McGregor	Hillsboro	2023
1	Bob Dole	AgriPro	58.9	53.4	64.3	59.8
2	Butlers Gold	OSU	57.3	55.3	59.4	61.2
3	TX17M1572*	TAMU	56.9	59.6	54.2	59.4
4	TX14A001035*	TAMU	56.3	63.4	49.2	61.6
5	TX16M9216*	TAMU	56.3	53.6	58.9	62.0
6	WB4523	Westbred	53.1	59.3	46.8	59.4
7	TX15M8024*	TAMU	52.9	55.5	50.2	60.9
8	TX14V70214*	TAMU	51.1	52.7	49.5	59.5
9	WB4418	Westbred	50.8	51.5	50.0	58.6
10	TX18A001132*	TAMU	50.6	54.5	46.7	61.2
11	Showdown	OSU	48.9	53.7	44.2	59.4
12	TAM 304	Scott Seed	47.3	48.6	46.0	57.3
13	High Cotton	OSU	46.3	53.2	39.3	61.4
14	Uncharted	OSU	46.3	52.4	40.1	58.8
15	TX14M7088-18AZ530*	TAMU	43.4	46.0	40.9	59.0
16	TX18A001119*	TAMU	43.3	49.3	37.2	63.1
17	Smiths Gold	OSU	41.6	50.2	33.0	62.1
18	WB4632	Westbred	37.7	36.0	39.4	58.8
19	WB4699	Westbred	37.3	42.3	32.2	58.3
LSD (0.05)			6.2	7.7	9.9	1.1
CV (%)			10.9	9.0	12.9	1.5
Mean			49.3	52.1	46.4	60.1

†Varieties ranked according to 5-location yield average

* Experimental Line

2023 Uniform Wheat Variety Trial: HRWW, Hillsboro

Rank [†]	Variety	Source	Yield (bu/a)				Test Wt (lb/bu)
			4-Year	3-Year	2-Year	2023	2023
1	Bob Dole	AgriPro	57.1	56.6	60.1	64.3	60.5
2	WB4418	Westbred	50.6	49.3	53.6	50.0	59.4
3	TX14A001035*	TAMU	49.4	44.7	44.4	49.2	62.0
4	TX15M8024*	TAMU	49.4	45.7	49.6	50.2	60.6
5	TX14V70214*	TAMU	48.4	42.8	49.1	49.5	59.6
6	TAM 304	Scott Seed	44.1	39.9	45.3	46.0	57.6
7	WB4699	Westbred	40.4	34.1	38.3	32.2	58.8
8	TX16M9216*	TAMU		52.8	58.2	58.9	61.9
9	WB4523	Westbred			50.9	46.8	58.6
10	Butlers Gold	OSU				59.4	62.4
11	TX17M1572*	TAMU				54.2	59.8
12	TX18A001132*	TAMU				46.7	61.2
13	Showdown	OSU				44.2	59.1
14	TX14M7088-18AZ530*	TAMU				40.9	59.8
15	Uncharted	OSU				40.1	59.4
16	WB4632	Westbred				39.4	59.1
17	High Cotton	OSU				39.3	60.3
18	TX18A001119*	TAMU				37.2	62.4
19	Smiths Gold	OSU				33.0	61.0
	LSD (0.05)		4.0	4.5	6.0	9.9	0.9
	CV (%)		10.0	10.4	10.3	12.9	0.8
	Mean		48.5	45.7	50.0	46.4	60.2

[†]Varieties ranked according to 4-year, 3-year, 2-year, then 2023 yield averages.

* Experimental Line

2023 Uniform Wheat Variety Trial: HRWW, McGregor

Rank [†]	Variety	Source	Yield (bu/a)			Test Wt (lb/bu)	
			4-Year	3-Year	2-Year	2023	2023
1	Bob Dole	AgriPro	47.5	42.0	48.9	53.4	59.2
2	TX14A001035*	TAMU	47.0	41.1	48.0	63.4	61.2
3	TX15M8024*	TAMU	46.8	46.8	44.0	52.5	61.3
4	WB4418	Westbred	45.5	45.5	41.4	50.0	57.8
5	TX14V70214*	TAMU	45.1	45.1	40.5	47.7	59.3
6	TAM 304	Scott Seed	43.0	43.0	39.3	45.1	57.1
7	WB4699	Westbred	42.5	42.5	35.3	41.9	57.7
8	TX16M9216*	TAMU		44.5	52.2	53.6	62.0
9	WB4523	Westbred			52.6	59.3	60.2
10	TX17M1572*	TAMU				59.6	58.9
11	Butlers Gold	OSU				55.3	60.0
12	TX18A001132*	TAMU				54.5	61.1
13	Showdown	OSU				53.7	59.6
14	High Cotton	OSU				53.2	62.5
15	Uncharted	OSU				52.4	58.2
16	Smiths Gold	OSU				50.2	63.2
17	TX18A001119*	TAMU				49.3	63.8
18	TX14M7088-18AZ530*	TAMU				46.0	58.2
19	WB4632	Westbred				36.0	58.5
	LSD (0.05)		3.2	3.0	3.8	7.7	2.0
	CV (%)		9.9	9.0	8.5	9.0	1.9
	Mean		44.9	41.7	47.2	52.1	60.0

†Varieties ranked according to 4-year, 3-year, 2-year, then 2023 yield averages.

* Experimental Line

2023 Uniform Wheat Variety Trial: SRWW, Blacklands Regional Summary

Rank [†]	Variety	Source	Yield (bu/a)			Test Wt (lb/bu)
			AVG	McGregor	Hillsboro	2023
1	AGS 2055	Stratton Seeds	62.8	70.4	55.2	61.8
2	AGS 3022	Stratton Seeds	69.0	71.6	66.4	62.0
3	GA12230-20E36	SunGrains- University of Georgia	72.2	73.2	71.2	60.5
4	GA131218-20E15	SunGrains- University of Georgia	71.9	73.6	70.3	61.5
5	TX20D5116	SunGrains- TAMU	71.5	77.3	65.7	60.7
6	GA151313-20E48	SunGrains- University of Georgia	70.3	75.6	65.0	62.2
7	Delta Grow 1800	Delta Grow	68.4	70.6	66.2	61.6
8	FLLA16124LDH-51	SunGrains- University of Florida	67.0	71.3	62.7	62.9
9	Dyna-Gro 9332	Dyna-Gro	65.6	73.9	57.3	64.5
10	GW 2032	Stratton Seeds	64.8	67.3	62.4	61.9
11	LA14234CBW-31	SunGrains- LSU	63.1	65.8	60.4	61.7
12	GA161240-20LE6	SunGrains- University of Georgia	62.8	64.4	61.2	61.4
13	Delta Grow 3500	Delta Grow	61.8	60.0	63.6	62.4
14	Dyna-Gro 9811	Dyna-Gro	61.2	66.2	56.2	60.4
15	LA14269SB-BR32-4-1-1	SunGrains- LSU	61.2	65.1	57.3	62.1
16	GW 6000	Stratton Seeds	59.8	65.2	54.4	60.3
17	LA14159SB-BR1-1	SunGrains- LSU	59.1	63.1	55.2	62.0
18	LA14272CBB-3-1-4	SunGrains- LSU	58.5	64.0	53.0	63.0
19	PROGENY #TURBO	Progeny	57.6	56.3	58.9	59.7
20	TX18D3212	SunGrains- TAMU	57.6	72.5	42.7	62.1
21	TX2017DDH193	SunGrains- TAMU	56.8	65.7	47.9	61.6
22	TX17D2337	SunGrains- TAMU	56.3	66.4	46.2	61.6
23	LA14272CBW-15-1-2	SunGrains- LSU	56.1	60.6	51.6	61.7
24	Dyna-Gro 9002	Dyna-Gro	55.5	58.5	52.5	57.8
25	AgriMAXX 535	AgriMAXX	54.7	53.1	56.3	59.8
26	Dyna-Gro 9290	Dyna-Gro	53.2	55.7	50.7	59.4
27	AgriMAXX 492	AgriMAXX	52.7	61.3	44.2	61.1
28	Dyna-Gro 9481	Dyna-Gro	52.6	47.6	57.7	59.0
29	LA15298GBB-5-1-4	SunGrains- LSU	52.1	59.4	44.7	62.8
30	FL15105-LDH043	SunGrains- University of Florida	50.7	47.0	54.5	61.8
31	PROGENY #CHAD	Progeny	50.4	49.1	51.8	59.5
32	Delta Grow 1700	Delta Grow	49.8	47.6	52.0	59.0
33	GW LA754	Stratton Seeds	47.7	44.3	51.1	60.0
34	LA13019c-23-3-1-3	SunGrains- LSU	47.6	51.8	43.5	60.6
35	USG 3783	Uni-South Genetics	46.7	46.8	46.6	58.7
36	Dyna-Gro 9393	Dyna-Gro	46.0	44.9	47.2	57.9
37	Viking 822	Viking Seeds	45.0	43.4	46.6	57.8
38	PROGENY #BUSTER	Progeny	43.0	45.7	40.2	61.1

39	Blackland 2167	Blackland Seeds	42.8	41.8	43.8	57.7
40	Blackland 2255	Blackland Seeds	40.1	45.6	34.5	58.5
41	Dyna-Gro 9701	Dyna-Gro	39.5	41.0	38.0	57.6
42	Blackland 1828	Blackland Seeds	37.1	45.9	28.3	57.9
43	Delta Grow 1000	Delta Grow	35.1	37.2	33.1	57.3
44	Dyna-Gro 9120	Dyna-Gro	29.9	36.9	22.9	.
45	Blackland 2248	Blackland Seeds	29.6	29.3	29.8	.
46	WB2606	Westbred	28.5	44.4	12.7	.
47	Dyna-Gro 9172	Dyna-Gro	25.7	28.2	23.2	.
48	AgriMAXX 516	AgriMAXX	25.3	27.0	23.6	56.7
49	Delta Grow 1200	Delta Grow	25.1	30.5	19.7	.
50	Blackland 2034	Blackland Seeds	23.7	29.7	17.7	.
51	USG 3463	Uni-South Genetics	23.1	27.2	18.9	.
52	USG 3472	Uni-South Genetics	22.3	28.2	16.3	.
53	AgriMAXX 514	AgriMAXX	21.8	27.6	15.9	.
54	AgriMAXX EXP 2301	AgriMAXX	20.9	19.7	22.0	.
55	PROGENY#BINGO	Progeny	17.4	25.4	9.4	.
	LSD (0.05)		1.2	8.8	8.1	1.2
	CV (%)		10.7	10.4	11.0	1.3
	Mean		48.9	45.5	52.4	60.5

†Varieties ranked according to 5-location yield average

2023 Uniform Wheat Variety Trial: SRWW, Hillsboro, TX

Rank [†]	Variety	Source	Yield (bu/a)			Test Wt (lb/bu)	
			4-Year	3-Year	2-Year	2023	2023
1	GW 6000	Stratton Seed	62.2	59.1	59.2	54.4	60.5
2	GW 2032	Stratton Seed	59.4	54.8	60.7	62.4	62.5
3	AGS 2055	Stratton Seed	58.7	56.9	58.6	55.2	61.9
4	Dyna-Gro 9332	Dyna-Gro	58.2	56.0	58.9	57.3	64.7
5	GW LA754	Stratton Seed	51.8	48.5	48.3	51.1	60.9
6	AgriMAXX 492	AgriMAXX	50.0	44.7	41.0	44.2	61.5
7	WB2606	Westbred	42.7	35.4	31.4	12.7	.
8	TX17D2337	SunGrains- TAMU		53.2	52.2	46.2	60.8
9	USG 3472	Uni-South Genetics		43.1	37.3	16.3	.
10	Blackland 1828	Blackland Seeds		39.0	32.4	28.3	57.8
11	AgriMAXX 514	AgriMAXX		35.6	28.7	15.9	.
12	Delta Grow 3500	Delta Grow			62.0	63.6	63.3
13	Delta Grow 1800	Delta Grow			59.3	66.2	61.6
14	Dyna-Gro 9002	Dyna-Gro			55.9	52.5	56.9
15	Dyna-Gro 9393	Dyna-Gro			55.4	47.2	58.6
16	Dyna-Gro 9811	Dyna-Gro			53.9	56.2	61.0
17	Dyna-Gro 9701	Dyna-Gro			47.8	38.0	57.8
18	PROGENY #BUSTER	Progeny			47.7	40.2	60.4
19	PROGENY #CHAD	Progeny			47.5	51.8	59.5
20	TX18D3212	SunGrains- TAMU			46.2	42.7	61.6
21	Dyna-Gro 9172	Dyna-Gro			42.5	23.2	.
22	Dyna-Gro 9120	Dyna-Gro			40.0	22.9	.
23	Blackland 2034	Blackland Seeds			40.0	17.7	.
24	Delta Grow 1200	Delta Grow			34.7	19.7	.
25	GA12230-20E36	SunGrains- University of Georgia				71.2	61.2
26	GA131218-20E15	SunGrains- University of Georgia				70.3	62.4
27	AGS 3022	Stratton Seed				66.4	62.5
28	TX20D5116	SunGrains- TAMU				65.7	60.5
29	GA151313-20E48	SunGrains- University of Georgia				65.0	62.2
30	FLLA16124LDH-51	SunGrains- University of Florida				62.7	63.9
31	GA161240-20LE6	SunGrains- University of Georgia				61.2	61.7
32	LA14234CBW-31	SunGrains- LSU				60.4	62.0
33	PROGENY #TURBO	Progeny				58.9	60.7
34	Dyna-Gro 9481	Dyna-Gro				57.7	59.8
35	LA14269SB-BR32-4-1-1	SunGrains- LSU				57.3	62.4
36	AgriMAXX 535	AgriMAXX				56.3	59.5
37	LA14159SB-BR1-1	SunGrains- LSU				55.2	62.2
38	FL15105-LDH043	SunGrains- University of Florida				54.5	62.8

39	LA14272CBB-3-1-4	SunGrains- LSU			53.0	63.2	
40	Delta Grow 1700	Delta Grow			52.0	59.5	
41	LA14272CBW-15-1-2	SunGrains- LSU			51.6	62.1	
42	Dyna-Gro 9290	Dyna-Gro			50.7	59.8	
43	TX2017DDH193	SunGrains- TAMU			47.9	61.9	
44	Viking 822	Viking Seeds			46.6	57.9	
45	USG 3783	Uni-South Genetics			46.6	58.9	
46	LA15298GBB-5-1-4	SunGrains- LSU			44.7	63.2	
47	Blackland 2167	Blackland Seeds			43.8	59.0	
48	LA13019c-23-3-1-3	SunGrains- LSU			43.5	60.7	
49	Blackland 2255	Blackland Seeds			34.5	59.4	
50	Delta Grow 1000	Delta Grow			33.1	57.1	
51	Blackland 2248	Blackland Seeds			29.8	.	
52	AgriMAXX 516	AgriMAXX			23.6	56.1	
53	AgriMAXX EXP 2301	AgriMAXX			22.0	.	
54	USG 3463	Uni-South Genetics			18.9	.	
55	PROGENY#BINGO	Progeny			9.4	.	
	LSD (0.05)		3.8	4.3	5.8	8.1	1.3
	CV (%)		8.4	9.6	10.6	11.0	1.2
	Mean		54.7	47.8	47.6	45.5	60.8

†Varieties ranked according to 4-year, 3-year, 2-year, then 2023 yield averages.

2023 Uniform Wheat Variety Trial: SRWW, McGregor, TX

Rank [†]	Variety	Source	Yield (bu/a)			Test Wt (lb/bu)	
			4-Year	3-Year	2-Year	2023	2023
1	Dyna-Gro 9332	Dyna-Gro	68.7	66.2	69.5	73.9	64.3
2	AGS 2055	Stratton Seed	60.7	58.0	63.4	70.4	61.6
3	GW 2032	Stratton Seed	59.4	58.2	62.5	67.3	61.3
4	GW 6000	Stratton Seed	58.9	57.1	59.3	65.2	60.2
5	AgriMAXX 492	AgriMAXX	55.9	50.4	50.3	61.3	60.6
6	WB2606	Westbred	55.7	51.0	46.1	44.4	59.8
7	GW LA754	Stratton Seed	45.1	42.3	44.4	44.3	59.1
8	TX17D2337	SunGrains- TAMU		68.4	65.4	66.4	62.3
9	Blackland 1828	Blackland Seeds		48.5	42.7	45.9	57.9
10	USG 3472	Uni-South Genetics		45.7	40.4	28.2	57.1
11	AgriMAXX 514	AgriMAXX		41.5	34.1	27.6	55.8
12	TX18D3212	SunGrains- TAMU			62.4	72.5	62.7
13	Delta Grow 3500	Delta Grow			61.4	60.0	61.4
14	Delta Grow 1800	Delta Grow			59.5	70.6	61.7
15	Dyna-Gro 9811	Dyna-Gro			57.7	66.2	59.9
16	Dyna-Gro 9002	Dyna-Gro			54.9	58.5	58.7
17	PROGENY #BUSTER	Progeny			49.6	45.7	61.9
18	Dyna-Gro 9393	Dyna-Gro			49.5	44.9	57.2
19	Dyna-Gro 9120	Dyna-Gro			45.4	36.9	59.1
20	PROGENY #CHAD	Progeny			44.2	49.1	59.5
21	Dyna-Gro 9701	Dyna-Gro			43.4	41.0	57.5
22	Dyna-Gro 9172	Dyna-Gro			40.7	28.2	56.8
23	Delta Grow 1200	Delta Grow			39.9	30.5	57.7
24	Blackland 2034	Blackland Seeds			38.5	29.7	56.2
25	TX20D5116	SunGrains- TAMU				77.3	60.9
26	GA151313-20E48	SunGrains- University of Georgia				75.6	62.1
27	GA131218-20E15	SunGrains- University of Georgia				73.6	60.7
28	GA12230-20E36	SunGrains- University of Georgia				73.2	59.8
29	AGS 3022	Stratton Seed				71.6	61.5
30	FLLA16124LDH-51	SunGrains- University of Florida				71.3	61.9
31	LA14234CBW-31	SunGrains -LSU				65.8	61.3
32	TX2017DDH193	SunGrains- TAMU				65.7	61.3
33	LA14269SB-BR32-4-1-1	SunGrains- LSU				65.1	61.7
34	GA161240-20LE6	SunGrains- University of Georgia				64.4	61.0
35	LA14272CBB-3-1-4	SunGrains- LSU				64.0	62.8
36	LA14159SB-BR1-1	SunGrains- LSU				63.1	61.9
37	LA14272CBW-15-1-2	SunGrains- LSU				60.6	61.2
38	LA15298GBB-5-1-4	SunGrains- LSU				59.4	62.3

39	PROGENY #TURBO	Progeny			56.3	58.7
40	Dyna-Gro 9290	Dyna-Gro			55.7	59.0
41	AgriMAXX 535	AgriMAXX			53.1	60.1
42	LA13019c-23-3-1-3	SunGrains- LSU			51.8	60.4
43	Delta Grow 1700	Delta Grow			47.6	58.5
44	Dyna-Gro 9481	Dyna-Gro			47.6	58.2
45	FL15105-LDH043	SunGrains- University of Florida			47.0	60.7
46	USG 3783	Uni-South Genetics			46.8	58.5
47	Blackland 2255	Blackland Seeds			45.6	57.7
48	Viking 822	Viking Seeds			43.4	57.7
49	Blackland 2167	Blackland Seeds			41.8	56.4
50	Delta Grow 1000	Delta Grow			37.2	57.5
51	Blackland 2248	Blackland Seeds			29.3	54.9
52	USG 3463	Uni-South Genetics			27.2	.
53	AgriMAXX 516	AgriMAXX			27.0	57.3
54	PROGENY#BINGO	Progeny			25.4	.
55	AgriMAXX EXP 2301	AgriMAXX			19.7	.
	LSD (0.05)		6.4	6.8	5.7	8.8
	CV (%)		13.5	13.6	9.7	10.4
	Mean		57.8	53.4	51.1	52.4

†Varieties ranked according to 4-year, 3-year, 2-year, then 2023 yield averages.

Impact of Insecticide Seed Treatment and Planting Date on Hessian fly

Description of treatments in planting date by insecticide seed treatment study

Planting Date	Insecticide Seed Treatment
Early (13 October 2022)	Untreated
	Cruiser @ 1.33 fl oz/cwt
	Poncho @ 1.79 fl oz/cwt
	Gaicho @ 2.4 fl oz/cwt
	Lumivia @0.75 fl oz/cwt
Late (15 November 2022)	Untreated
	Cruiser @ 1.33 fl oz/cwt
	Poncho @ 1.79 fl oz/cwt
	Gaicho @ 2.4 fl oz/cwt
	Lumivia @0.75 fl oz/cwt

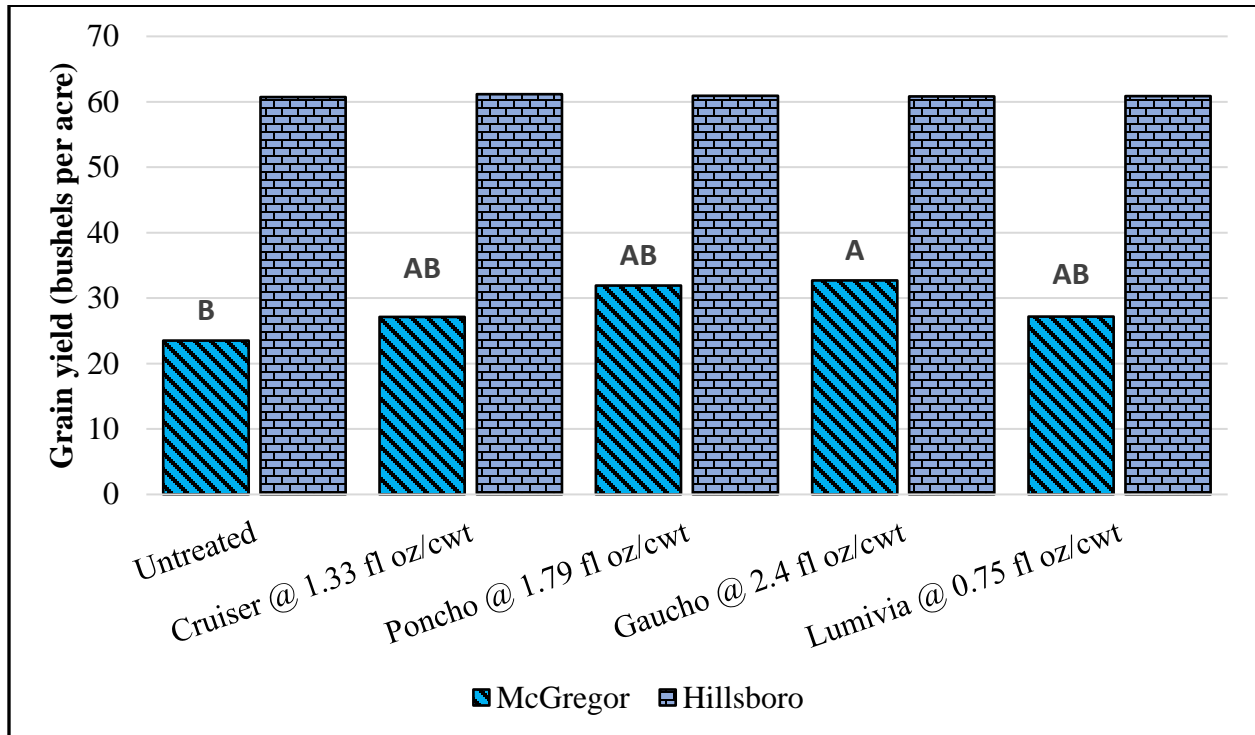


Fig. 1. Impact of insecticide seed treatments on grain yield in McGregor (light blue) and Hillsboro (blue-gray). Treatments in the same locations with the same letters are not statistically different based on Tukey's HSD (P=0.05).

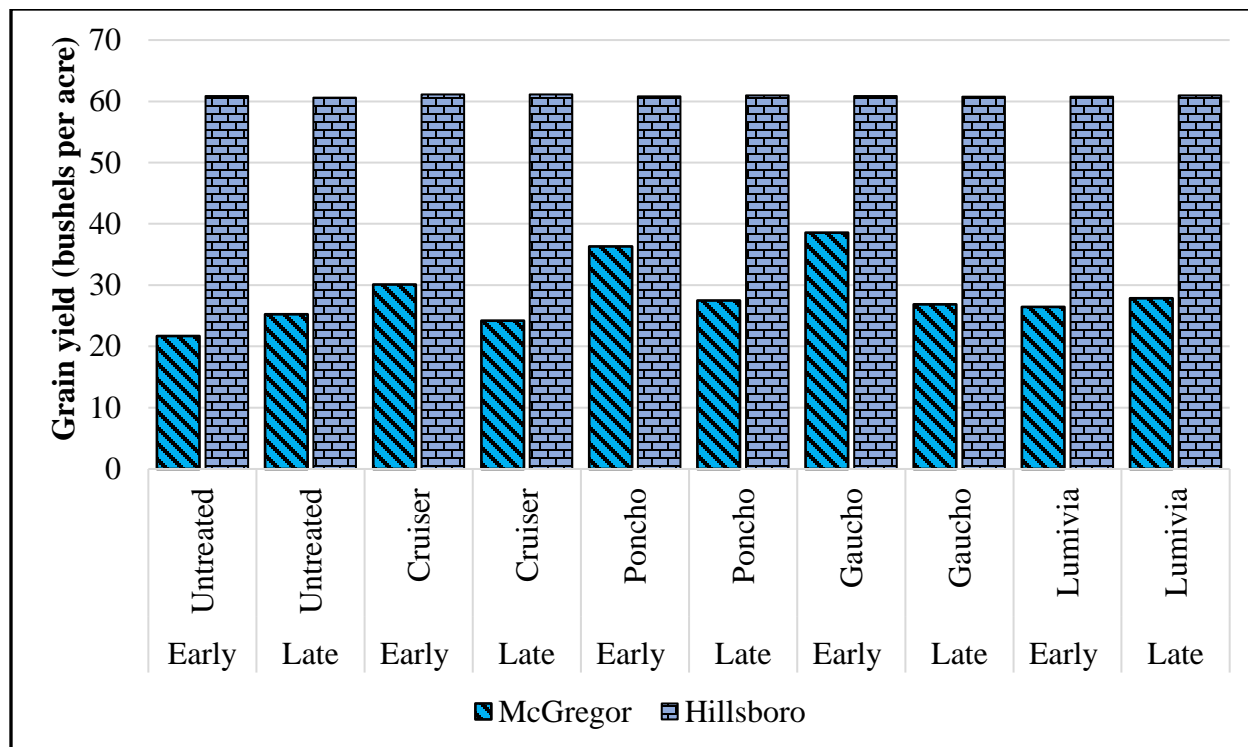


Fig. 3. Interaction between planting date and insecticide seed treatment on grain yield in McGregor (light blue and Hillsboro (blueish gray).

Impact of Planting Date, Nitrogen Fertility and Cultivar Selection on

Description of Treatment in planting date by Nitrogen fertility level by cultivar selection		
Planting Date	Nitrogen Fertility Level	Cultivar
Early (13 October 2022)	50 % N recommendation	Susceptible (TAM 205)
		Resistant (TX18M8024)
	100% N recommendation	Susceptible (TAM 205)
		Resistant (TX18M8024)
	150% N recommendation	Susceptible (TAM 205)
		Resistant (TX18M8024)
Late Plating (15 November 2022)	50 % N recommendation	Susceptible (TAM 205)
		Resistant (TX18M8024)
	100% N recommendation	Susceptible (TAM 205)
		Resistant (TX18M8024)
	150% N recommendation	Susceptible (TAM 205)
		Resistant (TX18M8024)

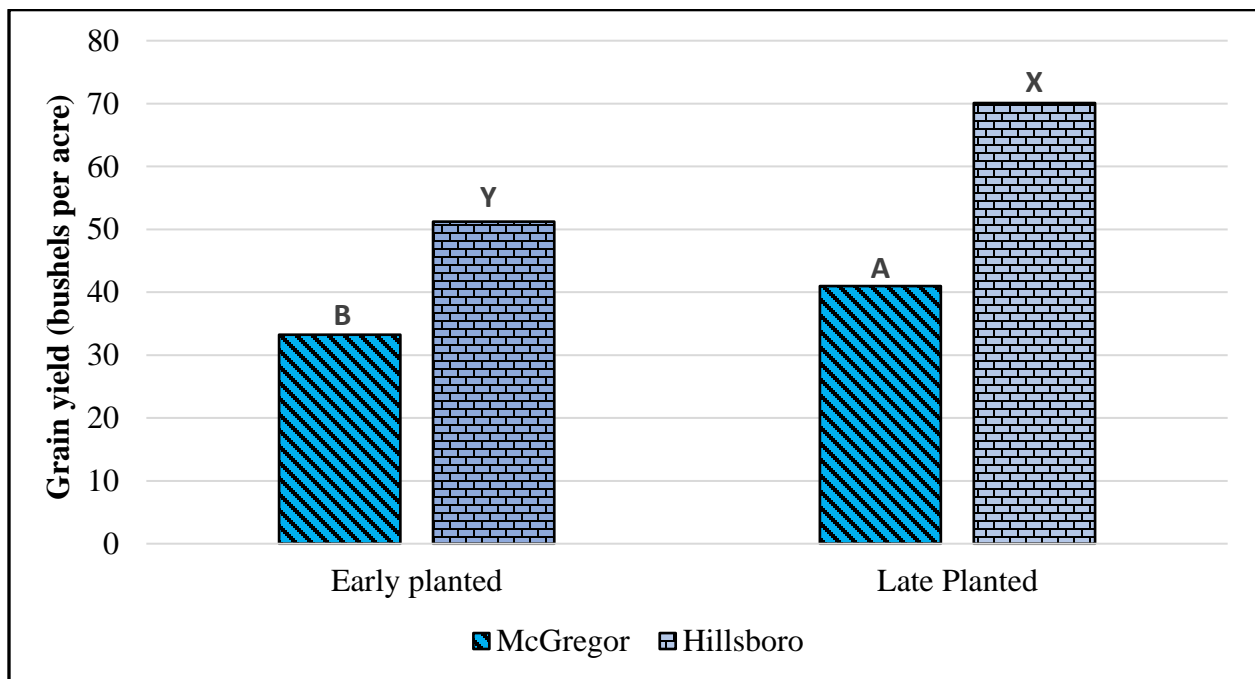


Fig. 4. Impact of planting date in McGregor (light blue) and Hillsboro (blueish gray) across a susceptible (TAM 205) and Resistant (TX18M8024) cultivars, and three Nitrogen fertility levels. Treatments in the same location with the same letter are not statistically different based on Tukey's HSD ($P=0.05$).

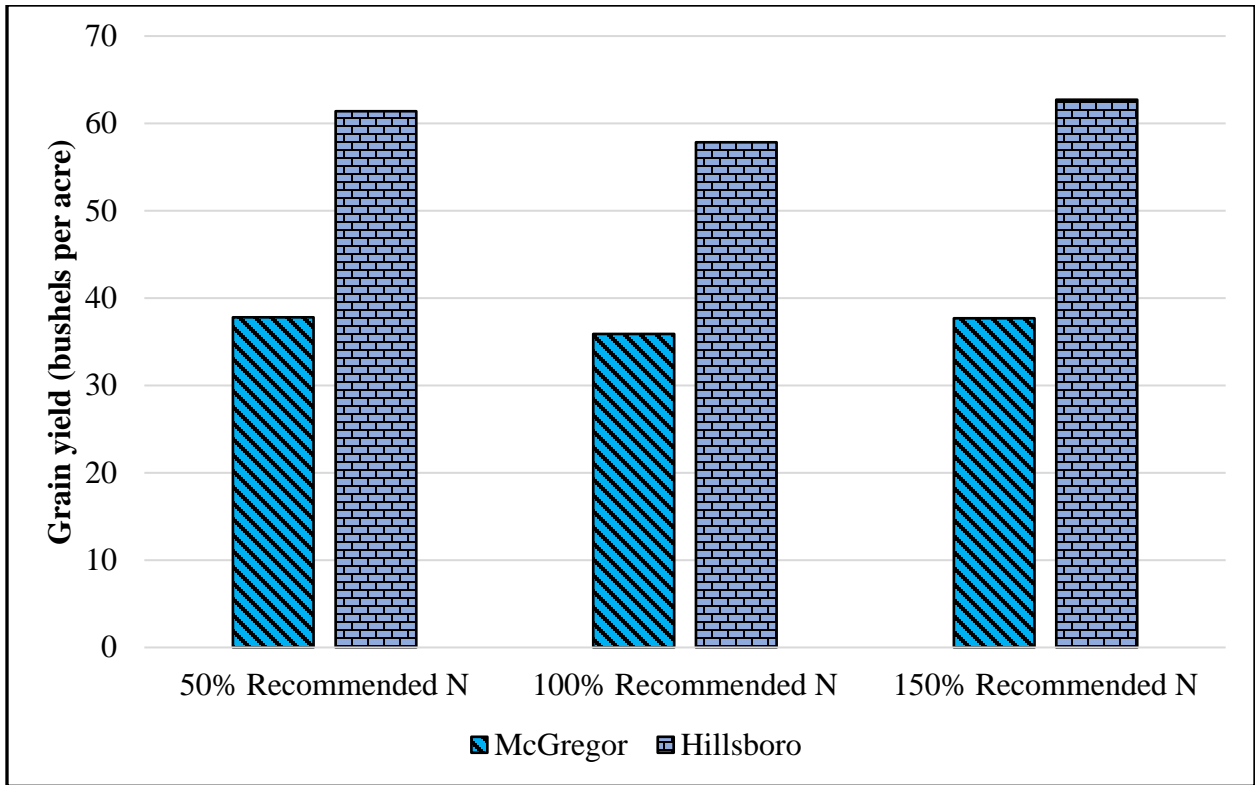


Fig. 5. Impact of Nitrogen fertility level across cultivars on grain yield in McGregor (light blue) and Hillsboro (blueish gray).

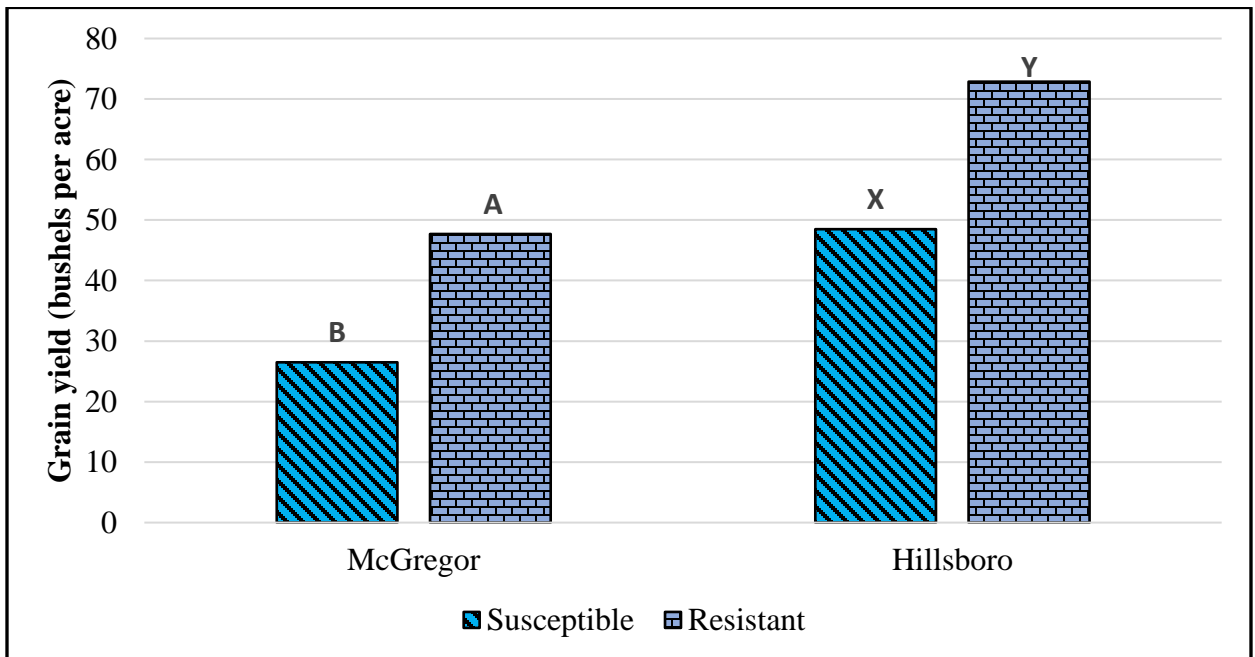


Fig. 6. Impact of susceptible (light blue) and resistant (blueish gray) cultivars on grain yield in McGregor and Hillsboro

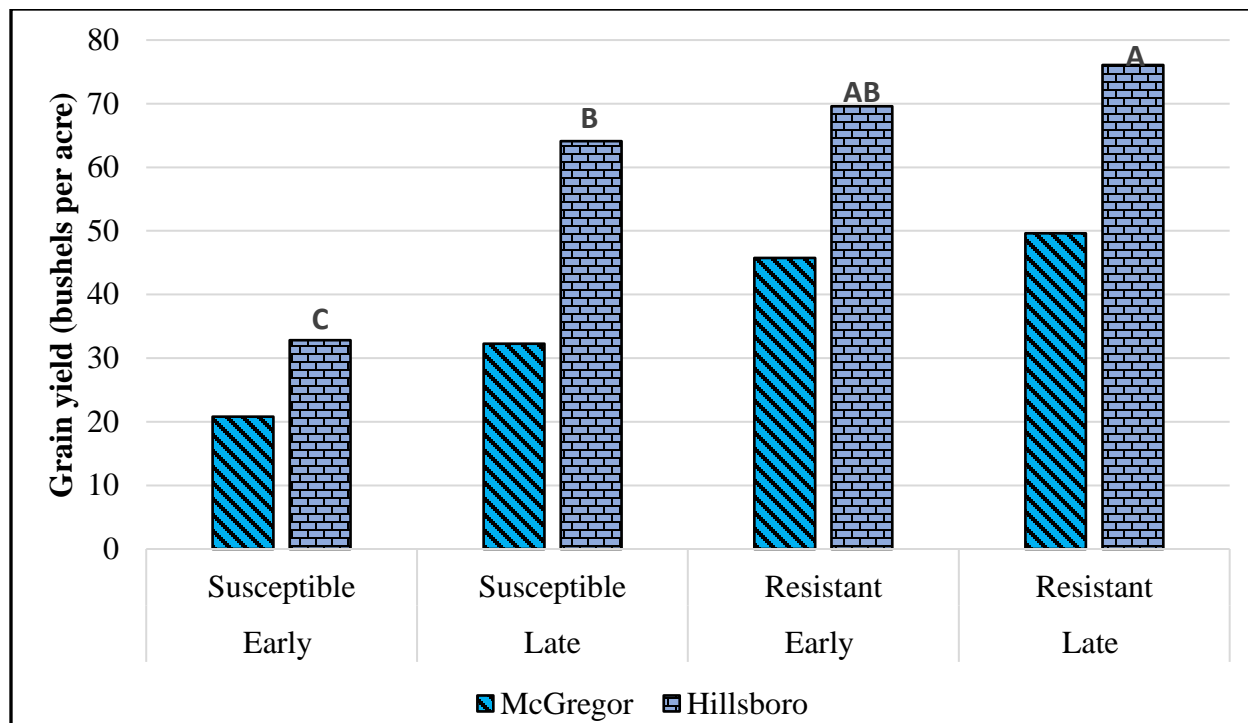


Fig. 7. Impact of planting date and cultivar selection on grain yield in McGregor (light blue) and Hillsboro (blueish gray). Treatments at the same location with different letters are statistically different based on Tukey's HSD ($P=0.05$)