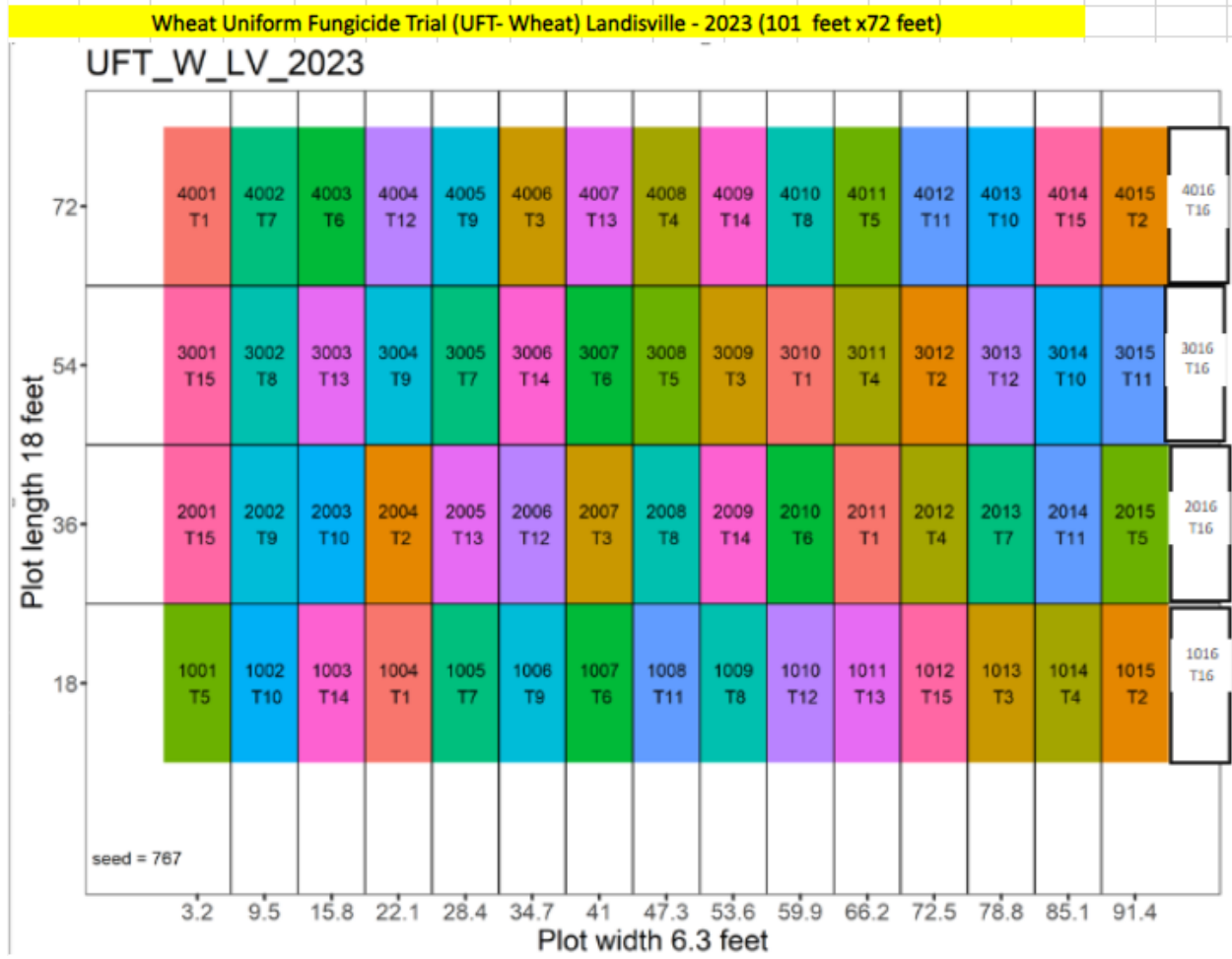


Uniform Fungicide Trial- Wheat
UFT_W_LV_2023



Year	2023
Location	Southeast Agricultural Research and Extension Center
Field	
GPS coordinates	
Soil type	Silt loam
Crop	wheat
Previous crop	hemp
Variety	MAS #86 (MS)
Seeding rate	1.6 million
Row space (in)	7.5
Reps	4
Tillage/Residue	tilled
Trial type	RCBD
Plot dimensions	6.3'x14'
Herbicide	Harmony on 4/3/23
Foliar insecticide	n
Foliar fungicide	n
Fertilizer	Split-applied
Irrigation	100 lb on 4/3/23
Planting date	11/4/22
Artificial inoculations (y/n)	y
Inoculum type/density	Spray, 1*10 ⁵ spores/mL
Inoculation date	5/16/23
Rating 1 date	6/10/23
Rating 2 date	N/A
Rating 3 date	N/A
Harvest date	7/6/23

Map:



Protocol:

Treat ment	Product, rate, application date/timing			Spray Date1	Spray Date2
1	UTC			...	
2	Untreated uninoculated				
3	Miravis Ace	13.7	FGS 10.5.2	5/15/2023	
4	Miravis Ace fb Tebuconazole	13.7, 4	FGS 10.3, FGS 10.5.4 (4-6 days after anthesis)	5/15/2023	5/23/2023
7	Prosaro	8.2	FGS 10.5.1 (early anthesis)	5/15/2023	
8	Prosaro Pro	10.3	FGS 10.5.1 (early anthesis)	5/15/2023	
9	Prosaro	6.5	FGS 10.5.1 (early anthesis)	5/15/2023	
10	Sphaerex	7.3	FGS 10.5.1 (early anthesis)	5/15/2023	
11	Priaxor or Nexicor fb Sphaerex	2 or 5 fb 7.3	FGS 8-9 (FGS 4-5) or FGS 10.3 (50% Heading) fb FGS 10.5.1 (early anthesis)	5/5/2023	5/15/2023
12	Miravis Ace	13.7	FGS 10.3	5/11/2023	
13	Caramba	13.5	FGS 10.5.1	5/15/2023	
14	Miravis Ace fb Prosaro Pro	13.7 fb 10.3	FGS 10.5.1/4-6 days after anthesis	5/15/2023	5/23/2023
15	Miravis Ace fb Sphaerex	13.7 fb 7.3	FGS 10.5.1/4-6 days after anthesis	5/15/2023	5/23/2023

Data by plot:

Treat	Rep	FHB			DON ppm	FDK %	Yield Bu/Ac	Test wt Lb/Bu	100 Kernel wt (g)	Foliar Disease
		Incidence	Severity	Index						total foliar disease (%)
1	1	0	0	0	0	3.00	73.95	52.8	6.03	27.5
	2	4	56	2.24	0.16	4.33	65.67	53.3	5.87	20
	3	2	70	1.4	0	5.33	72.40	52.9	5.87	26.25
	4	0	0	0	0	5.67	65.82	53.5	5.83	21.25
2	1	0	0	0	0	2.67	98.29	53.6	6.00	17.5
	2	0	0	0	0	3.33	79.23	53.1	5.07	26.25
	3	0	0	0	0	4.67	84.68	53.4	5.27	12.5
	4	0	0	0	0	6.00	78.57	53.1	5.50	22.5
3	1	0	0	0	0	4.33	80.07	53.3	5.67	20
	2	0	0	0	0	5.33	81.35	54.3	5.37	22.5
	3	0	0	0	0	5.33	84.59	52.4	5.53	16.25
	4	0	0	0	0	6.00	82.42	53	5.37	16.25
4	1	0	0	0	0	4.67	87.74	53.4	5.47	22.5
	2	0	0	0	0.09	4.00	74.76	53.1	5.53	15
	3	0	0	0	0	5.67	83.56	53.8	6.33	21.25
	4	0	0	0	0	6.00	79.63	54.2	5.30	18.75
7	1	0	0	0	0	3.67	78.79	52.9	5.67	25
	2	2	7	0.14	0	5.33	72.13	52.9	5.50	14.25
	3	2	70	1.4	0	6.33	85.61	53.5	5.20	17.5
	4	0	0	0	0	4.67	73.86	52.8	6.07	18.75
8	1	0	0	0	0	4.67	71.92	53.2	5.87	22.5
	2	0	0	0	0	5.00	76.13	53.6	5.23	30
	3	0	0	0	0	5.67	72.64	54.1	5.37	31.25
	4	0	0	0	0	9.67	69.87	53.2	5.80	21.25
9	1	2	28	0.56	0	3.33	70.33	52.7	5.27	26.25
	2	0	0	0	0	5.33	74.46	53	6.90	26.25
	3	0	0	0	0	5.00	83.45	54.3	5.20	30
	4	0	0	0	0	5.00	75.91	53.2	5.90	12.5
10	1	0	0	0	0	5.33	78.57	54.1	6.57	22.5
	2	2	42	0.84	0	3.33	71.20	53.6	5.57	27.5
	3	0	0	0	0	7.33	82.42	53.6	5.30	11.25
	4	0	0	0	0	4.33	67.80	53	5.33	22.5
11	1	0	0	0	0	3.67	73.60	52.8	5.30	30
	2	0	0	0	0	4.67	73.52	53.1	5.63	16.25
	3	0	0	0	0	6.33	83.89	53.5	5.70	17.5
	4	0	0	0	0	3.67	71.79	53.2	5.27	23.75
12	1	0	0	0	0	4.00	67.06	53	6.40	26.25
	2	0	0	0	0	3.67	76.89	54	5.50	30
	3	0	0	0	0	5.67	81.27	53.6	5.57	15
	4	0	0	0	0	4.33	78.61	52.8	5.80	15
13	1	0	0	0	0	2.67	67.34	52.9	5.17	18.75
	2	0	0	0	0	4.00	77.46	53	5.90	35
	3	0	0	0	0	6.33	74.83	54	5.13	22.5
	4	0	0	0	0	7.00	79.59	52.9	5.50	22.5
14	1	2	7	0.14	0	4.33	76.98	53.5	5.43	25
	2	0	0	0	0	5.00	71.15	53.1	5.80	23.75
	3	4	7	0.28	0	5.00	85.03	53.2	5.40	11.25
	4	0	0	0	0	6.33	76.18	54	5.33	23.75
15	1	0	0	0	0	3.00	71.44	53.4	5.53	22.5
	2	0	0	0	0	3.00	76.04	53.1	5.63	27.5
	3	0	0	0	0	5.33	76.84	53.3	5.47	28.75
	4	0	0	0	0	4.67	77.59	53.1	5.67	10.5

Summary by treatment:

trt	severity	incidence	fhb_index	foliar_avg	don	yield_bu_a	tw	fdk_percent	seedwt_avg	ndvi_6.13
1	31.5	1.5	0.91	23.75	0.04	69.46	53.13	4.58	5.90	0.33
2	0	0	0.00	19.69	0.00	85.19	53.30	4.17	5.46	0.33
3	0	0	0.00	18.75	0.00	82.11	53.25	5.25	5.48	0.33
4	0	0	0.00	19.38	0.02	81.42	53.63	5.08	5.66	0.31
7	19.3	1	0.39	18.88	0.00	77.60	53.03	5.00	5.61	0.31
8	0	0	0.00	26.25	0.00	72.64	53.53	6.25	5.57	0.32
9	7	0.5	0.14	23.75	0.00	76.04	53.30	4.67	5.82	0.34
10	10.5	0.5	0.21	20.94	0.00	75.00	53.58	5.08	5.69	0.29
11	0	0	0.00	21.88	0.00	75.70	53.15	4.58	5.48	0.31
12	0	0	0.00	21.56	0.00	75.96	53.35	4.42	5.82	0.32
13	0	0	0.00	24.69	0.00	74.81	53.20	5.00	5.43	0.31
14	3.5	1.5	0.11	20.94	0.00	77.34	53.45	5.17	5.49	0.31
15	0	0	0.00	22.31	0.00	75.48	53.23	4.00	5.58	0.30

Discussion/Results:

This trial had a record dry May. Due to the drought, there were low levels of FHB and low DON detected in samples. Because of the low disease pressure, there were no significant differences in Fusarium head blight severity, incidence, or FHB index. There were significant differences in yield, with the Miravis Ace, Miravis Ace followed by Tebuconazole, and Curezin resulting in the highest yields.

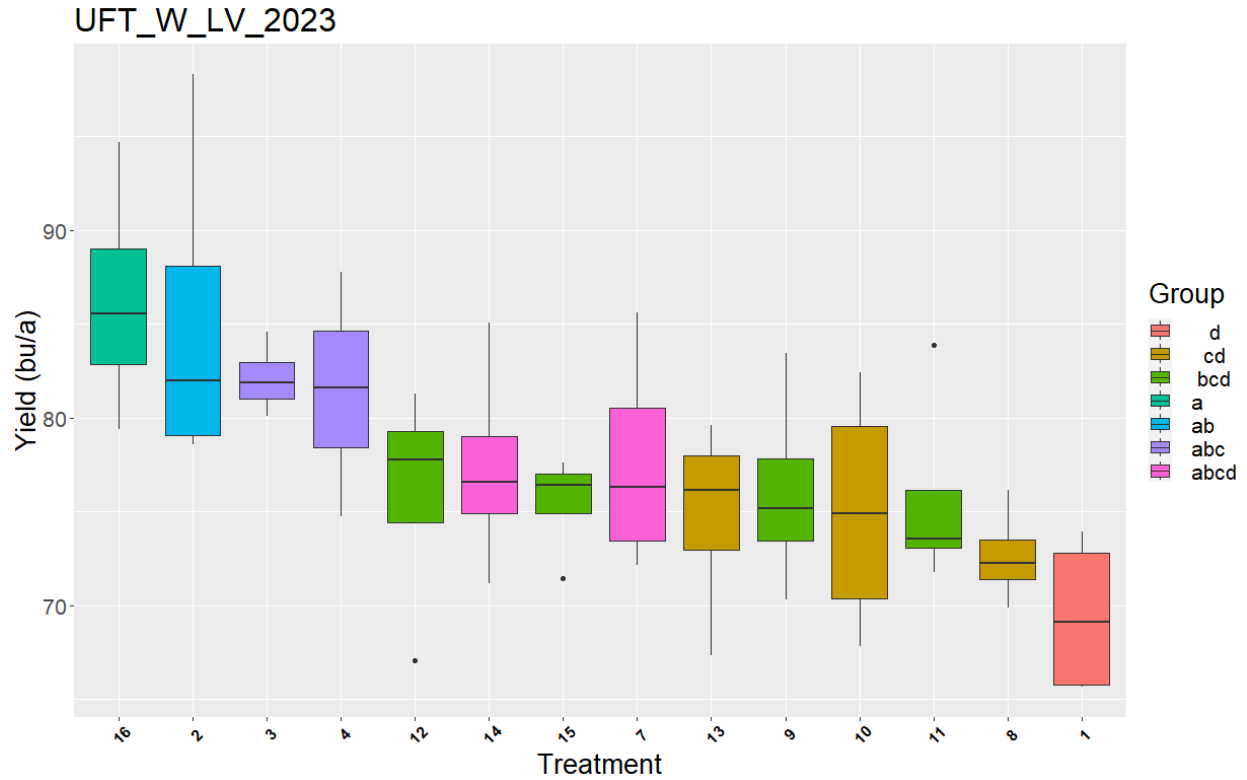


Figure 1. There were significant differences found between treatments for yield. The high rate of Curezin (copper product, 86 bu/a), Miravis Ace (85 bu/a), and Miravis Ace followed by Tebuconazole (82 bu/a) had the highest yields. These averaged over 12 bu/a higher than the untreated check (69 bu/a). ($\alpha=0.05$)

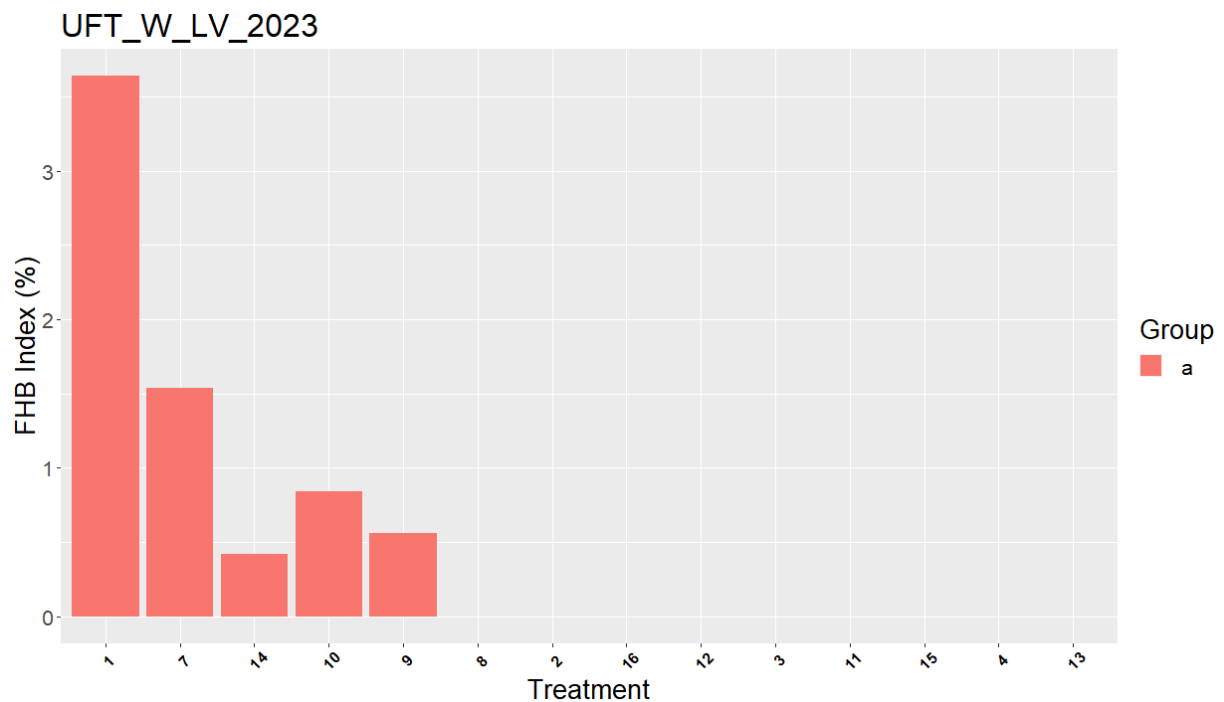


Figure 2. Boxplot showing mean FHB incidence (percent heads infected by FHB) by treatment. There were no significant differences, but all treatments had a lower mean FHB index compared to the untreated check. ($\alpha=0.05$)

Acknowledgements:

All products used in this trial were provided by BASF, Bayer- Crop Science, FMC Agricultural Solutions, and Syngenta.