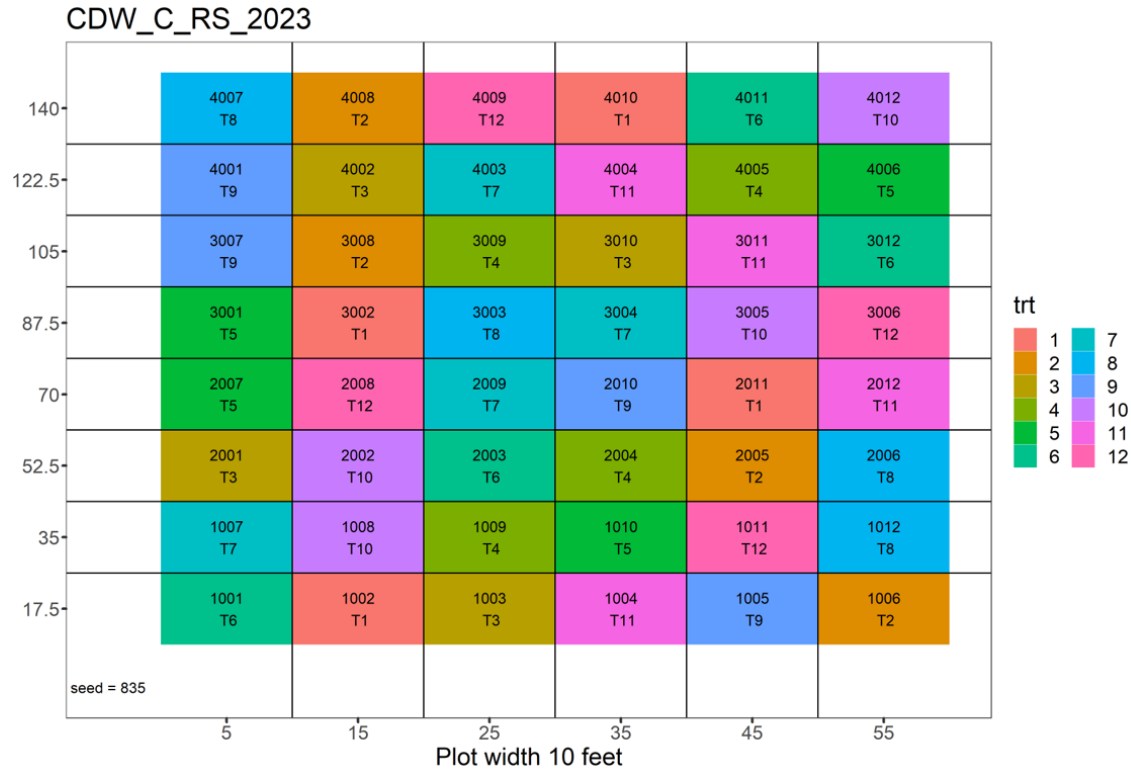


Corn Disease Working Group Trial
 CDW_C_RS_2023



Year	2023
Location	Russel E. Larson Agricultural Research Center at Rock Springs
Field	28
GPS coordinates	40.713132, -77.942119
Soil type	Silt loam
Crop	Corn
Previous crop	Soybean
Variety	P0157AM
Seeding rate	32,000
Row space (in)	30
Reps	4
Tillage/Residue	No-till
Trial type	RCBD
Plot dimensions	10'x20'
Herbicide	Pre: y Post: y
Foliar insecticide	n
Foliar fungicide	n
Fertilizer	Starter: y Side-dress: y
Irrigation	n
Planting date	5/11/23
Artificial inoculations (y/n)	n
Inoculum type/density	N/A
Inoculation date	N/A
Rating 1 date	9/5/23
Rating 2 date	N/A
Rating 3 date	N/A
Harvest date	11/16/23

Map:



Protocol:

Trt	Product	Rate (oz/a)	Timing	Adjuvant	Rate	Spray Date
1	UTC					
2	Veltyma	7	VT/R1	none	N/A	8/3/23
3	Delaro Complete	8	VT/R1	none	N/A	8/3/23
4	Aproach Prima	8	VT/R1	none	N/A	8/3/23
5	Adastrio	8	VT/R1	none	N/A	8/3/23
6	Miravis Neo	13.7	VT/R1	none	N/A	8/3/23
7	Trivapro	13.7	VT/R1	none	N/A	8/3/23
8	Headline AMP	10	VT/R1	none	N/A	8/3/23
9	Proline	5.7	VT/R1	none	N/A	8/3/23
10	Quadris	6	VT/R1	none	N/A	8/3/23
11	Tilt	4	VT/R1	none	N/A	8/3/23
12	UTC					

Data by plot:

plot	rep	trt	weight_lb	moisture (%)	yield_bu_a	test weight (lb/bu)
1001	1	6	26.813	16.4	206.35	62.5
1002	1	1	25.917	16	200.40	62.6
1003	1	3	26.277	16.6	201.74	61.4
1004	1	11	23.86	16	184.50	62
1005	1	9	23.188	16.4	178.45	61.5
1006	1	2	25.921	15.9	200.67	62.1
1007	1	7	25.706	16.3	198.06	62.2
1008	1	10	24.878	16	192.37	62.5
1009	1	4	24.033	16.2	185.39	62
1010	1	5	23.769	16	183.79	62.2
1011	1	12	21.13	16.8	161.83	61.1
1012	1	8	25.43	16.9	194.53	60.8
2001	2	3	25.631	16.6	196.78	61.3
2002	2	10	24.91	16.2	192.16	61.8
2003	2	6	24.877	16.3	191.68	61.7
2004	2	4	19.09	17.2	145.51	60.4
2005	2	2	23.047	17.1	175.88	60.7
2006	2	8	24.122	16.2	186.08	61.5
2007	2	5	25.653	16.3	197.65	61.9
2008	2	12	22.253	17.7	168.59	60.2
2009	2	7	19.937	16.6	153.06	61.2
2010	2	9	22.451	16.1	173.40	61.6
2011	2	1	25.209	15.9	195.16	62.4
2012	2	11	22.9	16.2	176.65	61.5
3001	3	5	26.83	16.1	207.22	62.5
3002	3	1	21.858	16.5	168.01	61.3
3003	3	8	22.068	16.5	169.63	61.4
3004	3	7	17.429	16.6	133.81	61
3005	3	10	19.341	16	149.56	61.9
3006	3	12	18.208	16	140.79	61.7
3007	3	9	26.008	15.8	201.59	63.3
3008	3	2	19.095	17.7	144.66	60.1
3009	3	4	18.082	17.3	137.66	60.6
3010	3	3	18.269	16.9	139.75	60.8
3011	3	11	21.457	16.1	165.72	61.6
3012	3	6	19.708	16.1	152.21	61.6
4001	4	9	23.81	16.2	183.67	62.4

4002	4	3	21.242	16.8	162.69	60.9
4003	4	7	15.589	17.4	118.53	60.4
4004	4	11	19.294	16.1	149.01	61.7
4005	4	4	19.97	15.9	154.60	62.2
4006	4	5	20.488	16	158.42	61.8
4007	4	8	26.839	15.7	208.27	63.8
4008	4	2	27.402	15.9	212.14	62.7
4009	4	12	14.751	16.2	113.79	61.6
4010	4	1	16.868	16.1	130.28	61.6
4011	4	6	19.509	16.3	150.32	61.3
4012	4	10	18.405	16	142.32	61.7

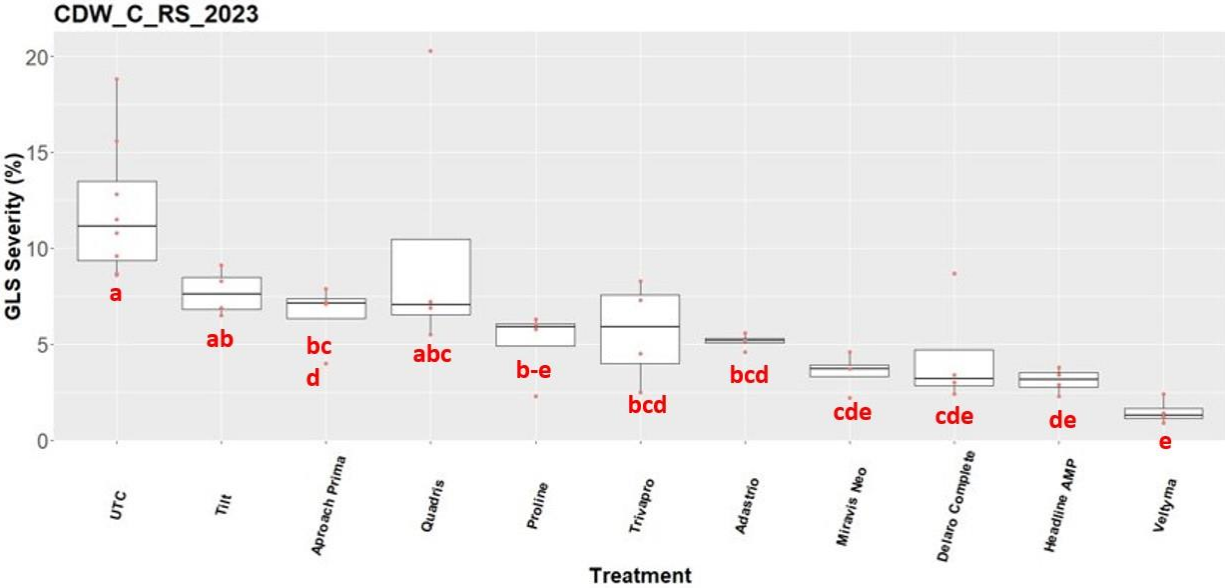
Summary by treatment:

```
> yield_bu_a
  trt      Treatment Rate (oz ac-1) .group yield_bu_a    lsmean      SE
1    1          UTC                NA      a   159.8579 0.1590856 0.008897173
2    2      Veltyma                7.0      a   183.3391 0.1821638 0.011787273
3    3 Delaro Complete            8.0      a   175.2391 0.1750124 0.011524412
4    4 Aproach Prima              8.0      a   155.7895 0.1557659 0.010835811
5    5      Adastrio              8.0      a   186.7727 0.1862340 0.011925341
6    6      Miravis Neo           13.7      a   175.1370 0.1751460 0.011527502
7    7      Trivapro              13.7      a   150.8667 0.1503207 0.010617446
8    8  Headline AMP             10.0      a   189.6283 0.1892249 0.012027182
9    9        Proline              5.7      a   184.2764 0.1836323 0.011848538
10  10        Quadris              6.0      a   169.1005 0.1691039 0.011315825
11  11          Tilt              4.0      a   168.9715 0.1692612 0.011329431
```

```
> GLS_severity
  trt      Treatment Rate (oz ac-1) .group GLS_severity    lsmean      SE
1    1          UTC                NA      a          12.050 0.11998997 0.010954194
2    2      Veltyma                7.0      e           1.475 0.01677456 0.005026230
3    3 Delaro Complete            8.0      cde           4.375 0.04145195 0.008391833
4    4 Aproach Prima              8.0      bcd           6.550 0.06712929 0.010799578
5    5      Adastrio              8.0      bcd           5.150 0.05409268 0.009668963
6    6      Miravis Neo           13.7      cde           3.550 0.03789718 0.007951253
7    7      Trivapro              13.7      bcd           5.650 0.05531989 0.009762689
8    8  Headline AMP             10.0      de           3.100 0.03378699 0.007472361
9    9        Proline              5.7      bcde          5.100 0.04998760 0.009317484
10  10        Quadris              6.0      ab           9.975 0.09090225 0.012706738
11  11          Tilt              4.0      abc           7.700 0.07895041 0.011790203
```

Discussion/Results:

This trial included ten fungicides with no adjuvant used. Headline AMP, Veltyma, Delaro Complete, and Miravis Neo performed the best at reducing gray leaf spot. No significant differences were observed in yield between treatments. No tar spot or northern corn leaf blight were present in this trial.



* $\alpha = 0.05$

Figure 1. Boxplot showing gray leaf spot severity (%) by treatment. Ratings were done on 9/5/23.

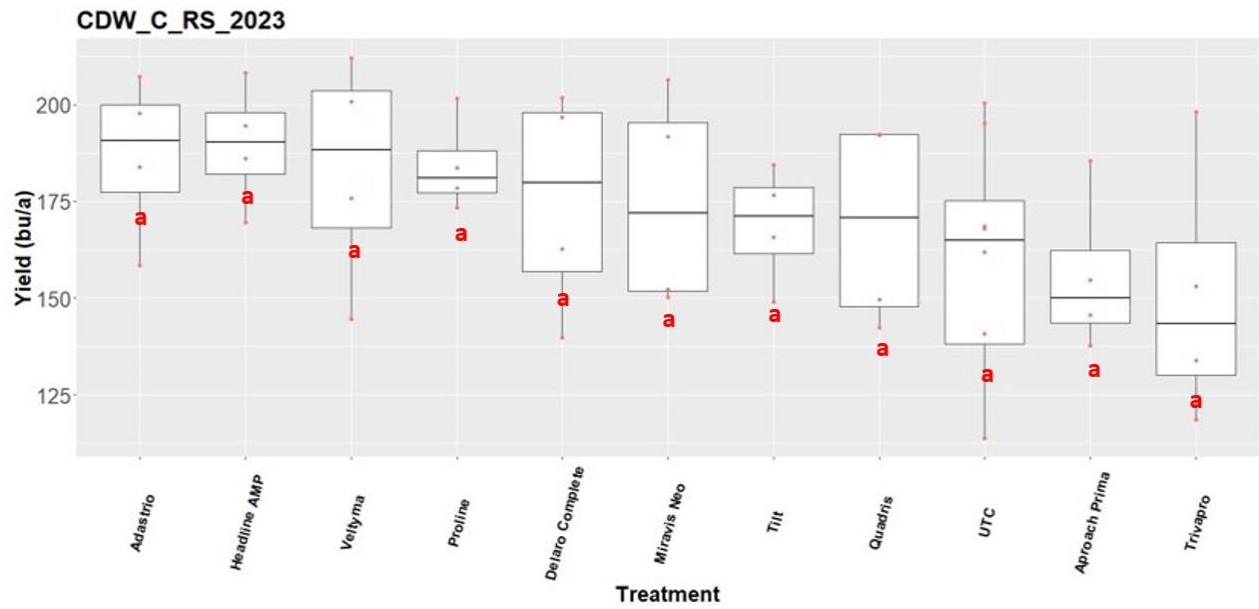


Figure 2. Boxplot showing yield (bu/A) by treatment. Plots were harvested on 11/16/23.

Acknowledgements:

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