

2021 SDSU Hybrid Rye Variety Trials – South Dakota

Notes from Dakota's Best Seed:

- As expected, the difference between Hybrid Rye and regular rye was not as great this year with the heat and drought, but still the better economic option.
- Overall yields were low due to drought and high temperatures in June.
- Tyndall site did not receive fertilizer (more of an organic system).
- The Lennox site had some issues with plugged drill units but was uniform otherwise.

Table 3. Results of a rye variety trial conducted at Artesian, South Dakota in 2021. Lines not significantly different ($P < 0.10$) from the highest ranking rye variety are marked in bold font. Note there was substantial wildlife damage to 'Overland' HRWW at this site. Height was measured as the plants stood.

<u>SITE</u>	<u>LINE</u>	<u>Height</u>	<u>Lodging</u> <u>Score</u>	<u>Moisture</u>	<u>Test</u> <u>Wt.</u>	<u>Yield</u>
		(in.)	(0 to 5)	(%)	(lb/bu)	(bu/ac)
Artesian	Bono	36.8	0.2	12.8	50.0	84.0
Artesian	Daniello	40.3	0.5	12.6	49.9	82.6
Artesian	Serafino	41.0	0.3	12.9	49.8	82.3
Artesian	Recepter	37.8	0.3	12.6	50.8	81.8
Artesian	Tayo	39.5	0.1	12.8	49.7	80.8
Artesian	Brasetto	38.5	0.1	12.6	49.6	78.9
Artesian	Trebiano	42.5	0.5	12.7	50.2	76.0
Artesian	Hazlett	45.0	1.2	12.9	50.2	66.0
Artesian	Untreated Bono	38.0	0.4	12.6	50.8	63.6
Artesian	Dylan	48.3	1.0	12.9	49.6	54.3
Artesian	Rymin	46.5	1.8	13.2	49.0	52.0
Artesian	Elbon	47.8	0.7	13.4	48.7	40.7
Artesian	Overland HRWW	29.3	2.3	12.8	49.1	13.0
	<i>Mean</i>	40.8	0.7	12.8	49.8	65.9
	<i>CV (%)</i>	5.0	59.0	2.9	4.3	11.5
	<i>P-value</i>	< 0.01	< 0.01	NS	NS	< 0.01

Table 4. Results of a rye variety trial conducted at Kimball, South Dakota in 2021. Lines not significantly different ($P < 0.10$) from the highest ranking rye variety are marked in bold font. Height was measured as the plants stood.

<u>SITE</u>	<u>LINE</u>	<u>Height</u>	<u>Lodging</u> <u>Score</u>	<u>Moisture</u>	<u>Test</u> <u>Wt.</u>	<u>Yield</u>
		(in.)	(0 to 5)	(%)	(lb/bu)	(bu/ac)
Kimball	Bono	36.3	3.6	12.2	52.9	72.3
Kimball	Untreated Bono	34.8	4.5	12.2	52.4	66.8
Kimball	Recepter	33.3	2.7	12.1	51.7	58.6
Kimball	Serafino	35.0	4.0	11.3	48.6	57.1
Kimball	Trebiano	36.8	3.8	12.8	50.0	56.6
Kimball	Brasetto	35.8	2.9	12.5	50.6	52.5
Kimball	Tayo	34.5	3.1	12.5	49.5	51.6
Kimball	Daniello	36.5	4.3	12.3	50.0	44.7
Kimball	Rymin	45.0	3.6	12.2	50.9	42.1
Kimball	Hazlett	44.3	4.0	12.0	51.4	36.4
Kimball	Dylan	43.3	4.2	11.6	50.8	33.3
Kimball	Elbon	46.8	2.2	11.8	51.1	31.6
Kimball	Overland HRWW	<u>27.0</u>	<u>0.2</u>	<u>12.1</u>	<u>54.3</u>	<u>25.0</u>
	<i>Mean</i>	37.6	3.3	12.1	51.1	48.3
	<i>CV (%)</i>	5.4	18.3	7.0	4.2	29.4
	<i>P-value</i>	< 0.01	< 0.01	NS	NS	< 0.01

Table 5. Results of a rye variety trial conducted at the south quarter of the SDSU Southeast Research Farm near Beresford, South Dakota in 2021. Lines not significantly different ($P < 0.10$) from the highest ranking rye variety are marked in bold font. Height was measured as the plants stood.

SITE	LINE	Height	Lodging	100-Seed	Moisture	Test	Yield
		(in.)	Score	Wt.		Wt.	
Beresford-1	Untreated Bono	35.8	0.3	2.28	13.3	51.3	58.8
Beresford-1	Tayo	35.0	0.0	2.10	13.5	49.1	58.3
Beresford-1	Trebiano	40.0	0.3	2.05	13.6	49.1	53.1
Beresford-1	Daniello	37.0	0.8	1.85	13.3	49.5	51.0
Beresford-1	Bono	35.3	0.3	2.00	13.3	50.6	50.2
Beresford-1	Recepter	35.3	0.8	1.75	13.2	49.3	47.2
Beresford-1	Brasetto	35.8	0.3	1.88	13.4	49.6	46.8
Beresford-1	Serafino	36.0	0.5	1.70	13.2	49.2	45.0
Beresford-1	Hazlett	43.5	2.1	2.35	13.5	50.1	43.7
Beresford-1	Dylan	47.0	3.5	1.83	13.6	48.2	40.4
Beresford-1	Overland HRWW	26.5	0.0	2.80	13.5	53.6	40.1
Beresford-1	Rymin	44.5	2.9	2.00	13.1	49.2	36.7
Beresford-1	Elbon	45.5	2.0	2.03	13.5	50.9	35.3
	<i>Mean</i>	38.2	1.1	2.0	13.4	50.0	46.7
	<i>CV (%)</i>	3.6	44.0	9.5	1.7	1.4	14.5
	<i>P-value</i>	< 0.01	< 0.01	< 0.01	NS	< 0.01	< 0.01

Table 6. Results of a rye variety trial conducted at Tyndall, South Dakota in 2021. Lines not significantly different ($P < 0.10$) from the highest ranking rye variety are marked in bold font. Note this site did not receive any fertilizer. Height was measured as the plants stood.

SITE	LINE	Height	Lodging	Moisture	Test	Yield
		(in.)	Score		Wt.	
Tyndall	Brasetto	38.0	0.1	11.8	52.8	55.8
Tyndall	Tayo	37.8	0.2	12.1	52.0	55.7
Tyndall	Trebiano	32.8	0.2	12.1	52.4	55.4
Tyndall	Bono	38.0	0.4	11.9	54.1	52.2
Tyndall	Serafino	38.8	0.3	12.1	52.4	50.7
Tyndall	Recepter	38.8	0.2	12.2	52.8	50.6
Tyndall	Daniello	40.0	0.1	12.2	50.7	48.2
Tyndall	Untreated Bono	38.7	0.6	12.1	52.6	46.4
Tyndall	Hazlett	51.5	1.1	12.2	51.9	38.5
Tyndall	Rymin	50.8	1.1	12.0	52.8	35.0
Tyndall	Dylan	50.0	2.7	11.6	53.1	30.0
Tyndall	Overland HRWW	29.8	0.0	12.1	55.2	29.0
Tyndall	Elbon	50.7	1.1	11.4	54.5	24.7
	<i>Mean</i>	41.2	0.6	12.0	52.9	44.0
	<i>CV (%)</i>	15.4	65.7	3.3	2.6	15.5
	<i>P-value</i>	< 0.01	< 0.01	NS	< 0.05	< 0.01

