2024 Nebraska Dry Bean Variety Trials

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In 2024, the PHREC Dry Bean Breeding program conducted fourteen replicated field trials at two locations, the Scottsbluff Ag. Lab (Scotts80-Field-7) and the Mitchell Ag. Lab (Field W5) to evaluate which dry bean entries (varieties/experimental lines) best suit western Nebraska. These trials have been ongoing for 43 years to service the Nebraska dry bean industry. Information about dry bean variety performance will be available at http://cropwatch.unl./varietytest-Drybeans/2024.

Locations and Germplasm

Fourteen replicated trials [two Great Northern (20 entries), two Pintos (36 entries), two Light Red Kidneys (LRK, 15 entries), two Blacks (11 entries), two Navies (11 entries), two Yellows (5 entries), and two Small Reds (10 entries) were planted at the Scottsbluff and Mitchell Ag. Labs on June 3 and 5, respectively.

The soil at the Scottsbluff site (41°53.6′ N, 103°40.7′ W, 1200 m elevation) is a Tripp, very fine sandy loam (coarse-silty, mixed, superactive, mesic Aridic Haplustolls). The soil at the Mitchell site (41°56.6′ N, 103°41.9′ W, 1240 m elevation) is a silt loam (Typic Ustorthents).

Agronomic Management

Scottsbluff Ag. Lab

The field at Scottsbluff Ag. Lab was disked on April 3, plowed on May 25, and sprayed/roller harrowed with Outlook @ 14 oz/acre and Prowl H_2O @ 2 pts/acre on June 5.

The field at Scottsbluff Ag. Lab had enough residual N and P in a 36” depth, so no additional N and P were applied.

On August 4, the field at Scottsbluff Ag. Lab was sprayed with Badge 230 ME @ 2 pts and Domark SC @ 6 oz.

The field at Scottsbluff Ag. Lab was irrigated 17 times (11.8 inches) using sprinkler irrigation. It received 4.86 additional inches of precipitation. A heavy hailstorm hit the trial on June 20.

Mitchell Ag. Lab

The field at Mitchell Ag. Lab was disked on April 15 and sprayed/roller harrowed with Outlook @ 14 oz/acre and Prowl H_2O @ 2 pts/acre on June 6.

The field at Mitchell Ag. Lab had enough residual N and P in a 36” depth, so no additional N and P were applied.

On August 4, the field at Mitchell Ag. Lab was sprayed with Badge 230 ME @ 2 pts and Domark SC @ 6 oz.

The field at Mitchell Ag. Lab was irrigated 11 times (9.13 inches) using furrow irrigation. It received 5.77 additional inches of precipitation. A mild hailstorm hit the trial on June 20.

Experimental Design

The entries were assigned to experimental units using a randomized complete block design with four replications. Each plot consisted of four 22-foot rows spaced 22 inches apart. The target plant population was 80,000 plants/acre for all market classes except the LRK, which had a target population of 100,000 plants/acre. The trials were planted with a Hege cone planter. At the end of the growing season, a plot combine (Wintersteiger Classic) was used to harvest 20 feet of the middle two rows of each plot. The variety/line trials at the Scottsbluff and Mitchell Ag. Labs were undercut and combined on September 25 and 26 and September 23 and 24, respectively.

Response Variables

Data collected were: yield (lbs/acre adjusted to 14% moisture), DTF (days to flowering, actual number of days from planting to when 50% of the plants had at least one flower opened), DTM (days to harvest maturity, exact number of days from planting to when 80% of the plants were ready to be harvested), 100-seed counts (weight of 100 seeds in grams adjusted to 14% moisture), test weight (lbs/bushel adjusted to 14% moisture), and growth habit (1= determinate upright; 2a= indeterminate upright short vine; 2b= indeterminate upright long vine; 3a= indeterminate prostrate short vine; 3b= indeterminate prostrate long vine); and plant height in inches. Pinto beans were exposed to UV light for 72 hours to verify the slow-darkening trait (yes = slow-darkening; no = regular pintos). Results are presented in Tables 1 to 14.

Statistical Analysis

Data were analyzed using PROC MIXED (SAS, 2004). Means were separated using an F-protected LSD. All tests were considered significant at $P \leq 0.05$.

The GRAND MEAN (bottom of each table) refers to the average of the experiment. The coefficient of variation, expressed as a percentage (CV %), measures the variability of the experiment; large CVs indicate that a large amount of variation cannot be attributed to differences among entries. The LSD (Least Significance Difference) was used to evaluate differences among entries. If the difference between two entries exceeds the LSD value for a particular response variable, the higher value is significantly greater with 95% probability (0.05 level). If the difference between two entries is less than the LSD value, the values are considered similar.

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Acknowledgments
We thank Gene Kizzire, his team, and the summer crew for their help with agronomic management and greatly appreciate the Nebraska Dry Bean Commission's financial support.

Table 1. 2024 Great Northern Variety Trial -Scottsbluff Ag Lab.

Ent no	PEDIGREE	Yield Adj. at 14%† lbs/acre	Yield at 14% lbs/acre	Flowering days	Maturity days	Test Weight lbs/bu	Moisture %	100-SeedWeight gr	Growth Habit‡
2	Andromeda (13151)	4068	3647	47	94.5	61.0	11.0	46.3	3a
7	18215	4011	3626	47	95.5	62.5	10.7	36.7	3a
15	NE1-22-19	3642	2430	48	100.5	61.8	10.5	37.7	2b/3
12	NE1-17-36	3524	2936	49	101.0	61.2	11.1	43.3	2b
6	17227	3520	2705	48	99.5	58.5	10.8	39.4	2a
1	Hydra	3515	2418	48	102.3	63.0	10.8	48.1	3a
16	NE1-22-55	3220	2635	52	102.0	62.1	11.0	36.0	2b
11	White Pearl	3184	2938	48	99.3	61.3	10.9	37.6	2b
14	NE1-21-25	3147	2495	48	99.0	63.1	10.6	37.6	2b
4	Lyra (14164)	3126	2295	47	96.0	61.5	10.2	41.0	2b
10	Panhandle Pride	3119	2356	47	97.3	62.8	10.9	37.3	3a
5	15215	2972	2869	48	94.5	63.3	10.6	37.8	2b
17	NE1-22-5	2921	2093	48	99.5	61.8	10.9	37.0	2b
13	NE1-22-16	2913	2380	48	104.5	61.8	11.1	37.7	2b/3
3	Virgo (13172)	2850	2700	48	99.8	59.6	11.7	39.8	2b/3
9	Coyne	2530	1721	48	98.0	60.8	11.2	37.7	3a
19	Powderhorn	2394	1799	47	89.0	60.0	10.3	32.9	2b
8	18230	2144	1808	51	105.0	59.5	11.5	42.1	2b
18	Eiger	2140	1700	51	106.0	60.8	11.7	33.2	2b
20	ND-Pegassus	1889	1364	54	106.0	60.0	12.4	34.5	2b
	GRAND MEAN	3041	2446	49	99.5	61.3	11.0	38.7	
	LSD 0.05	926	918	3	5.3	2.2	0.8	2.9	
	CV %	15.2	18.8	2.8	2.7	1.8	3.5	3.7	

† Yield adjusted based on plot length (hail damage).

‡ 2a, 2b= Indeterminate, bush habit, short and long guides, respectively; 3, 3a = Indeterminate, with weak prostrate stem, and long and short guides, respectively.

Table 2. 2024 Great Northern Variety Trial - Mitchell Ag Lab.							
Ent no	**PEDIGREE**	**Yield at 14% lbs/acre**	**Flowering days**	**Maturity days**	**Test Weight lbs/bu**	**Moisture %**	**100-SeedWeight gr**
7	18215	3556	44	91	62.0	10.3	37.8
2	Andromeda (13151)	3526	45	90	60.4	10.6	44.1
16	NE1-22-55	3479	49	93	63.1	10.5	37.4
12	NE1-17-36	3419	47	91	61.9	10.2	40.7
4	Lyra (14164)	3372	45	89	61.3	10.3	38.6
11	White Pearl	3323	47	89	61.3	10.1	35.5
5	15215	3279	46	90	62.9	10.3	35.6
3	Virgo (13172)	3033	44	90	60.3	10.3	35.4
6	17227	3018	45	88	59.7	10.1	35.1
1	Hydra	2892	46	91	62.2	10.3	43.7
13	NE1-22-16	2838	48	96	60.8	10.4	40.9
14	NE1-21-25	2811	48	91	60.6	10.0	37.2
9	Coyne	2752	45	90	59.4	10.4	37.5
17	NE1-22-5	2729	48	90	60.9	10.1	36.7
15	NE1-22-19	2643	46	91	60.9	10.2	37.9
19	Powderhorn	2620	44	88	59.2	9.8	37.0
8	18230	2603	47	96	61.9	10.9	41.6
20	ND-Pegassus	2598	47	96	60.4	10.6	40.8
10	Panhandle Pride	2570	45	91	62.1	10.2	35.5
18	Eiger	2555	49	96	61.5	10.4	34.0
	GRAND MEAN	2981	46	91	61.1	10.3	38.1
	LSD 0.05	554	2	2	2.3	0.4	2.9
	CV %	9.3	2.3	1.3	1.9	2.1	3.8

Table 3. 2024 Pinto Variety Trial -Scottsbluff Ag Lab.

Ent	PEDIGREE	Yield Adj. at 14%†	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight	Growth Habit‡	Slow Darkening
no		lbs/acre	lbs/acre	days	days	lbs/bu	%	gr		
19	Ex2146-P	3588	3568	49	97	63.1	10.3	33.5	3a	no
11	Rustler (16400)	3431	3200	46	91	61.3	10.3	39.5	2b	no
25	NE2-22-18	3217	3005	47	92	60.0	10.2	41.7	2b	no
31	USDA-Rattler	3106	2851	50	97	61.2	10.7	37.9	2b	no
18	Ex2145-P	3039	2807	49	97	63.2	10.3	33.3	2b/3	no
2	Monterrey	2974	2837	51	97	62.4	10.8	35.4	2b/3	no
17	Ex2141-P	2947	2899	54	105	64.6	10.5	32.1	3a	no
27	NE2-22-35	2931	2743	53	102	60.6	10.8	37.7	3a	no
16	32-330-14	2581	2492	52	95	60.6	10.4	38.1	3a	no
1	La Paz	2538	2271	51	99	62.3	11.1	35.3	2b/3	no
36	Charro	2514	2286	49	102	62.3	9.9	36.7	2b/3	no
10	Cancun (14411)	2484	2360	52	101	61.0	10.4	40.3	2b/3	no
6	Cowboy	2343	2119	47	91	61.4	10.0	36.8	2b	no
3	Torreon	2261	1999	48	91	62.5	10.2	38.6	2b	no
9	Santa Maria (13431)	2189	1986	48	93	60.1	10.6	39.3	3a	no
35	ND-Falcon	2115	2078	55	98	59.2	9.4	31.3	2b	no
8	Gaucho (13396)	1849	1732	46	87	62.9	9.7	31.4	2b	no
7	Gleam (14455)	3649	3526	47	96	64.3	10.2	34.9	2b/3	yes
23	NE2-23-21	3637	3637	47	96	61.0	10.0	44.3	2b	yes
13	Shine (17589)	3266	3266	48	95	62.5	9.6	36.3	2b/3	yes
22	Wildcat	3265	3265	47	97	61.8	10.3	48.6	3a	yes
20	Ex2242-P	3146	2223	51	107	61.6	9.5	37.3	2b/3	yes
24	NE2-22-12	3106	2821	49	94	60.1	10.3	41.9	2b/3	yes
14	22-222	3077	2801	47	92	64.0	10.3	40.4	2b	yes
28	NE2-22-36	2998	2998	46	91	61.0	9.9	46.0	2b/3	yes
33	ND-Rodeo	2966	2966	48	100	64.3	9.9	39.4	2b	yes
29	NE2-17-37	2926	2461	51	93	58.7	10.3	37.7	2b/3	yes
15	Bronco	2870	2681	47	91	63.7	9.7	41.5	2b	yes
4	Vibrant	2790	2442	48	89	60.3	9.5	34.8	2b	yes
30	NE4-17-10	2760	2612	46	91	59.1	10.1	39.5	2b	yes
12	Mystic (17454)	2749	2488	48	100	63.8	10.5	40.1	2b	yes
5	Radiant	2733	2490	46	91	61.2	9.6	34.1	2b	yes
21	Ex2248-P	2415	2202	47	92	61.8	9.7	36.3	2b	yes
34	ND-Palomino	2391	2115	49	94	60.8	9.6	36.7	2b/3	yes
26	NE2-23-49	1951	1321	47	90	59.6	9.5	39.1	2b	yes
32	USDA-Diamondback	803	590	56	102	56.4	10.6	32.0	2b	yes
	GRAND MEAN	2767	2559	49	95	61.5	10.1	37.8		
	LSD 0.05	753	821	3	5	2.4	0.8	3.0		
	CV %	13.7	16.2	3.1	2.6	2.0	3.8	4.1		

† Yield adjusted based on plot length (hail damage).

‡ 2a, 2b= Indeterminate, bush habit, short and long guides, respectively; 3, 3a = Indeterminate, with weak prostrate stem, and long and short guides, respectively.

Table 4. 2024 Pinto Variety Trial - Mitchell Ag Lab.

Ent	PEDIGREE	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight	Slow Darkening
no		lbs/acre	days	days	lbs/bu	%	gr	
25	NE2-22-18	3640	48	94	60.3	9.9	42.5	no
19	Ex2146-P	3565	48	93	62.4	10.1	32.2	no
27	NE2-22-35	3247	49	96	60.8	10.1	38.6	no
3	Torreon	3242	48	92	61.7	10.2	37.3	no
1	La Paz	3212	51	95	62.6	10.4	36.3	no
18	Ex2145-P	3212	49	94	63.3	10.0	31.6	no
17	Ex2141-P	3044	50	98	64.0	10.6	32.6	no
10	Cancun (14411)	2959	50	95	60.3	10.2	43.3	no
16	32-330-14	2913	50	94	59.0	10.2	41.3	no
9	Santa Maria (13431)	2903	49	92	60.8	10.2	38.8	no
31	USDA-Rattler	2872	48	95	61.6	10.3	34.5	no
2	Monterrey	2855	49	95	62.0	10.6	33.6	no
11	Rustler (16400)	2777	48	90	61.6	10.2	37.1	no
6	Cowboy	2744	49	93	60.8	10.2	36.4	no
36	Charro	2715	52	97	62.3	9.9	39.9	no
35	ND-Falcon	2244	51	97	59.7	9.7	34.1	no
8	Gaucho (13396)	2008	47	88	62.2	9.6	30.6	no
7	Gleam (14455)	3722	48	91	64.0	10.3	33.4	yes
14	22-222	3613	48	92	64.2	10.6	40.6	yes
22	Wildcat	3499	47	93	62.3	10.1	45.7	yes
4	Vibrant	3442	48	91	62.4	9.5	33.5	yes
33	ND-Rodeo	3392	48	97	63.5	9.7	36.4	yes
24	NE2-22-12	3354	49	95	62.0	10.5	38.9	yes
23	NE2-23-21	3328	49	95	60.9	10.1	42.5	yes
28	NE2-22-36	3273	48	93	61.9	10.0	45.1	yes
15	Bronco	3238	47	92	64.0	9.7	41.3	yes
13	Shine (17589)	3192	49	96	62.7	9.8	37.7	yes
5	Radiant	3167	47	90	60.4	9.9	34.9	yes
20	Ex2242-P	3099	49	99	62.4	9.7	38.0	yes
30	NE4-17-10	3061	48	92	59.1	10.3	39.7	yes
12	Mystic (17454)	2995	46	93	64.5	10.4	35.9	yes
21	Ex2248-P	2927	48	93	61.3	9.7	37.7	yes
34	ND-Palomino	2563	49	93	61.7	9.7	36.7	yes
26	NE2-23-49	2474	49	91	60.4	9.7	39.1	yes
29	NE2-17-37	2327	48	92	59.2	10.1	34.5	yes
32	USDA-Diamondback	1463	50	95	61.4	10.4	30.4	yes
	GRAND MEAN	3008	49	93	61.8	10.1	37.3	
	LSD 0.05	667	2	3	1.7	0.4	2.8	
	CV %	11.2	2.2	1.8	1.4	2.2	3.7	

Table 5. 2024 Black Variety Trial -Scottsbluff Ag Lab.

Ent	PEDIGREE	Yield Adj. at 14%[†]	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight	Growth Habit[‡]
no		lbs/acre	lbs/acre	days	days	lbs/bu	%	gr	
8	Slate (B3036381)	2938	2776	56	104	64.7	9.7	20.5	2b/3
11	NE14-18-8	2925	2565	54	102	64.7	9.4	21.2	2a
9	Butte (B303350)	2819	2492	50	102	64.8	9.2	19.8	2a
1	Eclipse	2520	2038	57	102	63.5	9.2	19.4	2b
10	NE14-18-6	2412	2267	54	103	63.6	9.4	22.1	2b/3
7	Ace	2315	1967	56	102	61.0	8.8	20.1	2b
2	Black Tails (13489)	2311	1928	55	101	64.6	9.2	19.1	2b/3
6	13505	1772	1233	56	105	63.5	8.9	18.7	2b
5	Nimbus (14500)	1507	1133	58	108	61.2	9.1	21.5	2a
3	Spectre (14497)	1279	977	56	106	61.1	9.6	19.6	2b
4	BlackBeard (14506)	1077	552	57	106	57.4	9.0	18.7	2b
	GRAND MEAN	2171	1812	55	103	62.7	9.2	20.1	
	LSD 5 %	742	696	3	3	3.3	0.5	1.9	
	CV %	16.8	18.9	2.9	1.6	2.6	2.5	4.5	

[†] Yield adjusted based on plot length (hail damage).

[‡] 2a, 2b= Indeterminate, bush habit, short and long guides, respectively; 3, 3a = Indeterminate, with weak prostrate stem, and long and short guides, respectively.

Table 6. 2024 Black Variety Trial - Mitchell Ag Lab.

Ent	PEDIGREE	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight
no		lbs/acre	days	days	lbs/bu	%	gr
10	NE14-18-6	2980	54	104	63.4	10.1	23.1
7	Ace	2774	54	97	61.2	9.2	19.9
9	Butte (B303350)	2681	55	106	64.4	9.8	21.5
8	Slate (B3036381)	2608	55	105	64.6	10.3	21.7
1	Eclipse	2384	55	98	62.8	9.3	20.9
11	NE14-18-8	2282	54	99	64.7	9.4	21.6
	GRAND MEAN	2618	55	101	63.5	9.7	21.5
	LSD 0.05	481	1	6	3.1	0.5	2.3
	CV %	8.7	1.1	2.9	2.3	2.3	5.2

Table 7. 2024 Light Red Kidney Variety Trial -Scottsbluff Ag Lab.

Ent	PEDIGREE	Yield Adj. at 14%†	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight	Growth Habit‡
no		lbs/acre	lbs/acre	days	days	lbs/bu	%	gr	
9	Pink Panther	2198	1907	47	94	58.8	9.4	53.4	1
2	Red Zone	2157	1764	52	95	59.1	9.3	47.4	1
1	Big Red	2113	1727	47	91	59.6	9.7	50.2	1
13	Rosie	1990	1805	52	99	60.8	9.6	43.7	1
6	15897	1947	1795	52	96	59.1	9.3	48.2	1
10	Spitfire (L1032326)	1940	1750	49	92	57.6	9.4	48.5	1
5	15923	1860	1629	46	91	58.3	9.2	51.8	1
8	161041	1856	1558	51	93	58.2	9.2	45.2	1
4	15916	1832	1570	45	90	60.2	9.2	45.4	1
14	Closeau	1806	1662	46	97	59.3	9.3	59.8	1
7	161082	1766	1642	49	90	60.9	9.1	48.9	1
15	Whitetail	1697	1624	52	100	62.3	8.8	46.7	1
11	Panhandle Red	1563	1339	50	93	59.5	9.3	50.3	1
12	ND-Redbarn	1329	1064	51	98	61.0	9.1	47.9	1
3	Ronnie's Red	1075	1446	48	92	59.4	9.2	46.0	1
	GRAND MEAN	1809	1619	49	94	59.6	9.3	48.9	1
	LSD 0.05	629	461	2	4	1.5	0.3	3.0	1
	CV %	17.3	14.1	2.2	2.0	1.2	1.5	3.1	1

† Yield adjusted based on plot length (hail damage).

‡ 1= Determinate, bush habit, short guides.

Table 8. 2024 Light Red Kidney Variety Trial -Mitchell Ag Lab.

Ent	PEDIGREE	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight
no		lbs/acre	days	days	lbs/bu	%	gr
1	Big Red	1973	47	94	59.4	9.8	49.1
9	Pink Panther	1915	47	98	58.2	9.7	51.0
3	Ronnie's Red	1792	48	97	59.6	9.7	48.0
4	15916	1752	45	91	58.0	9.6	45.9
2	Red Zone	1668	49	98	58.7	10.0	48.8
10	Spitfire (L1032326)	1587	48	97	56.8	9.8	50.9
13	Rosie	1574	49	100	59.8	10.1	47.7
14	Closeau	1548	48	96	58.0	9.7	53.6
6	15897	1543	49	95	58.3	9.8	48.0
5	15923	1512	46	92	57.3	9.6	50.9
8	161041	1424	49	95	58.0	9.7	45.7
15	Whitetail	1415	49	99	61.7	9.3	52.8
11	Panhandle Red	1373	47	97	59.0	9.7	50.1
7	161082	960	46	91	58.2	9.7	43.3
12	ND-Redbarn	905	48	100	60.0	9.3	53.3
	GRAND MEAN	1529	48	96	58.7	9.7	49.3
	LSD 0.05	440	2	3	1.5	0.3	4.1
	CV %	14.3	1.7	1.4	1.3	1.5	4.2

Table 9. 2024 Navy Variety Trial -Scottsbluff Ag Lab.

Ent	PEDIGREE	Yield Adj. at 14%[†]	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight	Growth Habit[‡]
no		lbs/acre	lbs/acre	days	days	lbs/bu	%	gr	
11	Alpena	3599	3220	56	104	65.8	10.1	18.5	2a
7	T9905	3046	2760	56	102	63.9	10.2	21.8	2b/3
9	EX1803N	3017	2719	51	93	63.6	9.9	21.6	2b
4	Armada (13068)	2480	2072	54	106	63.6	10.0	20.6	2b
8	OAC Charm	2456	2007	53	105	65.7	9.9	21.6	2b
5	HMS Victory (15094)	2434	2261	55	107	64.2	10.1	20.6	2b
1	HMS Medalist	2385	1997	53	105	63.6	10.4	18.1	2b
10	ND-Polar	2332	2035	57	104	64.4	10.0	18.0	2b/3
2	Blizzard	2304	2251	56	105	64.8	10.2	19.4	2b/3
6	Liberty (15095)	2020	1814	57	110	65.0	10.7	20.2	2b
3	HMS Bounty (12047)	972	847	57	106	64.7	10.0	15.8	2b/3
	GRAND MEAN	2459	2180	55	104	64.5	10.1	19.7	
	LSD 0.05	881	845	4	3	2.4	0.3	1.9	
	CV %	17.6	19.1	3.2	1.4	1.8	1.5	4.8	

[†] Yield adjusted based on plot length (hail damage).

[‡] 2a, 2b= Indeterminate, bush habit, short and long guides, respectively; 3, 3a = Indeterminate, with weak prostrate stem, and long and short guides, respectively.

Table 10. 2024 Navy Variety Trial -Mitchell Ag Lab.

Ent	PEDIGREE	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight
no		lbs/acre	days	days	lbs/bu	%	gr
7	T9905	2725	52	102	64.6	10.5	22.7
11	Alpena	2657	54	99	64.7	10.4	19.1
8	OAC Charm	2599	49	98	64.3	10.4	22.0
9	EX1803N	2452	50	95	63.5	10.4	21.1
10	ND-Polar	1887	53	100	64.8	10.1	19.3
	GRAND MEAN	2464	52	98	64.4	10.3	20.8
	LSD 0.05	489	3	3	1.5	0.4	2.3
	CV %	9.3	3.0	1.6	1.1	1.9	5.2

Table 11. 2024 Yellow Variety Trial -Scottsbluff Ag Lab.

Ent	PEDIGREE	Yield Adj. at 14%[†]	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight	Growth Habit[‡]
no		lbs/acre	lbs/acre	days	days	lbs/bu	%	gr	
1	SV0863	3210	2947	50	101	67.2	9.8	34.2	1
2	Patron	2448	2345	51	99	66.1	9.7	37.8	1
3	Claim Jumper	1746	1688	53	101	66.9	9.6	37.4	1
4	CDC Sol	1449	1125	46	95	67.5	9.4	37.7	1
5	MY12724	1926	1812	52	102	67.1	9.9	36.1	1
	GRAND MEAN	2156	1984	50	100	67.0	9.7	36.6	
	LSD 0.05	532	314	2	3	2.4	0.3	3.1	
	CV %	11.6	7.4	2.3	1.4	1.7	1.7	4.0	

[†] Yield adjusted based on plot length (hail damage).

[‡] 1= Determinate, bush habit, short guides.

Table 12. 2024 Yellow Variety Trial -Mitchell Ag Lab.

Ent	PEDIGREE	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight
no		lbs/acre	days	days	lbs/bu	%	gr
2	Patron	1748	50	102	66.0	10.3	35.7
1	SV0863	1349	52	102	64.9	10.7	31.4
3	Claim Jumper	1160	49	101	63.9	10.4	37.0
4	CDC Sol	1022	48	98	66.0	10.0	38.8
5	MY12724	787	50	101	65.6	10.5	31.8
	GRAND MEAN	1213	50	101	65.3	10.4	34.9
	LSD 0.05	397	3	2	2.3	0.8	2.7
	CV %	15.4	2.4	0.8	1.6	3.8	3.7

Table 13. 2024 Small Red Variety Trial -Scottsbluff Ag Lab.

Ent	PEDIGREE	Yield Adj. at 14%[†]	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight	Growth Habit[‡]
no		lbs/acre	lbs/acre	days	days	lbs/bu	%	gr	
5	Ruby	3571	3515	48	95	63.9	9.5	30.2	3a
3	Viper	3265	3123	48	94	64.1	9.6	28.1	3a
2	Cayenne	2879	2879	47	90	63.0	9.1	32.9	2b
4	17837	2759	2759	51	98	63.0	9.7	31.8	3a
6	NE13-18-2	2434	2434	44	90	63.2	9.2	39.2	2b/3
1	Merlot	2289	2289	47	91	62.7	9.4	34.5	2b/3
8	NE51-23-388	1933	1933	50	97	62.2	9.1	32.0	2a
7	NE51-23-382	1852	1852	47	97	62.5	9.1	28.2	2b/3
10	NE51-23-400	1750	1579	48	91	62.8	9.2	29.0	2b
9	NE51-23-394	1701	1661	49	94	62.8	9.3	29.9	2b/3
	GRAND MEAN	2443	2402	48	93	63.0	9.3	31.6	
	LSD 0.05	426	435	2	3	0.8	0.4	1.4	
	CV %	8.5	8.9	2.5	1.8	0.6	1.8	2.1	

[†] Yield adjusted based on plot length (hail damage).

‡ 2a, 2b= Indeterminate, bush habit, short and long guides, respectively; 3, 3a = Indeterminate, with weak prostrate stem, and long and short guides, respectively.

Table 14. 2024 Small Red Variety Trial -Mitchell Ag Lab.

Ent	PEDIGREE	Yield at 14%	Flowering	Maturity	Test Weight	Moisture	100-SeedWeight
no		lbs/acre	days	days	lbs/bu	%	gr
3	Viper	2930	53	97	62.5	11.3	27.5
5	Ruby	2724	53	97	60.2	10.9	30.7
2	Cayenne	2432	51	99	60.4	11.0	32.9
6	NE13-18-2	2384	44	94	62.2	10.4	37.0
1	Merlot	1805	50	95	61.6	10.7	33.7
4	17837	1680	53	100	60.4	11.4	29.1
8	NE51-23-388	1023	55	99	58.9	10.6	31.5
9	NE51-23-394	866	54	100	61.4	10.8	25.4
10	NE51-23-400	810	52	98	60.5	10.3	24.9
7	NE51-23-382	764	49	98	57.9	10.7	27.4
	GRAND MEAN	1742	51	98	60.6	10.8	30.0
	LSD 0.05	488	3	4	2.1	0.7	2.7
	CV %	13.7	3.0	1.8	1.7	3.2	4.4