

A654-22

# North Dakota Dry Bean

## *Variety Trial Results for 2022 and Selection Guide*

Hans Kandel and Juan Osorno (NDSU Main Station); Heidi Eslinger and Spencer Eslinger (Oakes Irrigation Research Site); Mike Ostlie and Kristin Simons (Carrington Research Extension Center); Bryan Hanson, Lawrence Henry and Richard Duerr (Langdon Research Extension Center); John Rickertsen and Michael Wells (Hettinger Research Extension Center); Eric Eriksmoen, Austin Kraklau, and Jayden Hansen (North Central Research Extension Center, Minot); Tyler Tjelde, Justin Jacobs and Andrina Turnquist (Williston Research Extension Center)

### List of Tables

- Table 1. North Dakota Dry Edible Bean Harvested Acreage, 2003 to 2022.
- Table 2. North Dakota Dry Edible Bean Production by Commercial Class, 2003 to 2021.
- Table 3. 2022 Pinto, Black and Navy bean yield expressed as a percent of the trial mean at each location.
- Table 4. 2022 Dry Bean Variety Trial - Carrington
- Table 5. 2022 Dry Bean Variety Trial - Irrigated - Carrington.
- Table 6. 2022 Dry Bean Variety Trial - Irrigated - Oakes (Carrington REC).
- Table 7. 2022 Pinto Bean Variety Trial - Irrigated - Oakes (Carrington REC).
- Table 8. 2022 Navy Bean Variety Trial - Irrigated - Oakes (Carrington REC).
- Table 9. 2022 Dry Bean Variety Trial - Wishek (Carrington REC).
- Table 10. 2022 Dry Bean Variety Trial - Hettinger.
- Table 11. 2022 Dry Bean Variety Trial - Langdon.
- Table 12. 2022 Dry Bean Variety Trial - Minot.
- Table 13. 2022 Dry Bean Variety Trial - Irrigated - Williston.
- Table 14. Pinto Bean Variety Descriptions.
- Table 15. Navy Bean Variety Descriptions.
- Table 16. Black, Great Northern, Pink and Small Red Bean Variety Descriptions.

## North Dakota Bean Production

Dry edible beans have been a significant crop in eastern and east-central North Dakota during the past decades. Acreage for the past 20 years is shown in Table 1, with production by classes in Table 2. Dry edible bean production for 2022 is estimated (NASS forecast) at 1810 pounds per acre, up 780 pounds from 2021.

**Table 1. North Dakota Dry Edible Bean Harvested Acreage, 2003 to 2022.**

Year	Acreage
2003	520,000
2004	475,000
2005	565,000
2006	640,000
2007	665,000
2008	640,000
2009	580,000
2010	770,000
2011	380,000
2012	685,000
2013	430,000
2014	615,000
2015	635,000
2016	565,000
2017	685,000
2018	615,000
2019	551,500
2020	785,000
2021	620,000
2022	550,000 <sup>1</sup>

Source: North Dakota Agricultural Statistics Service – USDA.  
<sup>1</sup>Forecasted.

**Table 2. North Dakota Dry Edible Bean Production by Commercial Class, 2003 to 2021.**

Year	Pinto (Cwt)	Navy (Cwt)
2003	5,864,000	1,164,000
2004	3,561,000	650,000
2005	6,530,000	1,330,000
2006	4,988,000	1,585,000
2007	7,606,000	1,636,000
2008	6,660,000	2,087,000
2009	6,106,000	1,263,000
2010	7,543,000	1,958,000
2011	2,709,000	1,125,000
2012	7,610,000	2,215,000
2013	4,779,000	1,302,000
2014	5,677,000	1,622,000
2015	4,932,000	1,694,000
2016	5,745,000	1,321,000
2017	8,409,000	1,648,000
2018	5,352,000	1,620,000
2019	4,494,000	1,037,000
2020	9,085,000	1,380,000
2021	4,208,000	813,000

Source: North Dakota Agricultural Statistics Service – USDA.

## 2022 Dry Bean Performance Trials

Information about dry bean variety performance can be accessed on the web at [www.ag.ndsu.edu/varietytrials/](http://www.ag.ndsu.edu/varietytrials/), the site with all variety trial data from all North Dakota Agricultural Experiment Station locations for all crops or the variety selection tool at <https://vt.ag.ndsu.edu/>. The agronomic data presented in this publication are from replicated research plots using experimental designs that enable the use of statistical analysis.

The LSD (least significant difference) numbers beneath the columns in tables are derived from the statistical analyses and only apply to the numbers in the column in which they appear. If the difference between two varieties exceeds the LSD value, it means that with 90% to 95% probability (0.10 and 0.05 level, respectively), the higher-yielding variety has a significant yield advantage. If the difference between two varieties is less than the LSD value, then the variety yields are considered similar.

The CV is a measure of variability in the trial. The CV stands for coefficient of variation and is expressed as a percentage. Large CVs mean a large amount of variation that could not be attributed to differences in the varieties.

In the tables, the “mean” indicates the average of the observations in the column. Only compare values within the table and look for trends for the desired trait among different experimental sites and years. In the tables, the dry bean varieties are arranged in alphabetical order within market class. Footnotes provide more detailed information about data in the table under which they appear. Characteristics to evaluate for selecting a dry bean variety include marketing class, yield potential in your area, test weight, reaction to problematic diseases and maturity date.

When selecting a high-yielding and good-quality variety, use data that summarize several years and locations.

Information contained in this publication is based on research conducted by North Dakota Agricultural Experiment Station scientists. We express our thanks to dry bean growers who assisted with the on-farm variety testing.

We acknowledge the support for the statewide dry bean variety trials from the Northharvest Bean Growers Association. Research specialists, technicians, students and summer workers helped with the field work and data compilation. The assistance given by many secretaries in entering data in respective portions of the document is very much appreciated. A special thank you goes to Lisa Johnson, Extension Plant Sciences secretary, for assisting in the compilation of this publication.

Presentation of data for the varieties tested does not imply approval or endorsement by the authors or agencies conducting the tests. NDSU approves the reproduction of any table in this publication only if no portion is deleted, appropriate footnotes are given, the order of the data is not rearranged and NDSU is credited for the data.

**Table 3. 2022 Pinto, Black and Navy bean yield expressed as a percent of the trial mean at each location.**

	Carrington	Carrington	Oakes	Hettinger	Langdon	Willison	Minot	Average
		Irr.	Irr.			Irr.		
<b><u>PINTO</u></b> -----Yield in percent of the trial mean for each location-----								
Cowboy	97	101	110	116	98	102	91	102
La Paz	104	98	112	91	100	101	87	101
Lariat	115	123	91	111	96	104	123	106
Monterrey	123	105	109	106	101	121	121	111
ND Falcon	109	108	76	105	104	113	101	99
ND Palomino	95	97	108	101	84	83	97	96
Stampede	98	106	91	115	109	105	100	102
Torreon	91	90	100	118	113	100	82	99
Vibrant	78	78	97	85	115	82	99	93
Windbreaker	91	94	106	53	79	87	99	91
Trial Mean lb/a	2,052	2,825	4,425	1,062	3,146	2,414	1,902	2,547

	Carrington	Carrington	Oakes	Hettinger	Langdon	Williston	Minot	Average
		Irr.	Irr.			Irr.		
<b><u>BLACK</u></b> -----Yield in percent of the trial mean for each location-----								
Black Tails	87	113	102	102	116	96	78	100
Eclipse	111	98	106	106	105	118	124	106
ND Twilight	114	111	110	110	97	107	99	108
Zorro	88	79	83	83	81	79	100	86
Trial mean lb/a	1,859	2,656	3,697	928	2,979	1,380	1,115	2,088

	Carrington	Carrington	Oakes	Hettinger	Langdon	Williston	Minot	Average
		Irr.	Irr.			Irr.		
<b><u>NAVY</u></b> -----Yield in percent of the trial mean for each location-----								
Armada	99	94	99	97	101	83	--	96
Blizzard	92	94	101	95	105	89	--	98
HMS Medalist	92	102	96	92	90	103	--	96
ND Polar	110	112	104	102	100	123	--	107
T9905	107	98	101	114	105	101	--	103
Trial mean lb/a	1,972	2,970	3,965	944	3,178	1,681	--	2,452

**Table 4. 2022 Dry Bean Variety Trial - Carrington - Authors, M. Ostlie and K. Simons.**

Variety	Market Class	Growth Maturity (DAP) <sup>4</sup>	Direct Habit <sup>1</sup> (1-9)	Direct Harvest <sup>2</sup> (%)	Test Protein (%)	Test Weight (lb/bu)	100 Seed Weight (gram)	Seed Yield	
								2022	3-yr. Avg. <sup>3</sup>
Ace	Black	90	8.8	97	21.1	63.9	20.1	2,300	--
Black Tails	Black	84	8.0	96	22.6	65.4	17.3	1,614	2,094
Eclipse	Black	91	8.5	97	21.2	64.2	19.9	2,066	2,095
ND Twilight	Black	91	8.8	95	20.3	65.5	20.8	2,124	2,218
Zorro	Black	92	8.0	94	21.1	64.9	18.3	1,633	--
ND Pegasus	Great Northern	93	6.8	94	20.8	61.7	35.9	2,634	2,590
Armada	Navy	93	8.8	96	21.2	64.3	18.7	1,946	--
Blizzard	Navy	94	8.3	96	21.3	65.4	16.5	1,817	2,072
HMS Medalist	Navy	94	7.3	95	21.1	65.0	14.8	1,816	2,052
ND Polar	Navy	96	7.5	97	20.8	65.8	17.6	2,169	--
T9905	Navy	94	8.5	98	20.9	65.3	20.0	2,112	2,202
Rosetta	Pink	93	7.5	89	19.3	61.9	33.7	1,856	--
Cowboy	Pinto	87	7.8	95	19.9	61.7	33.9	1,981	2,378
La Paz	Pinto	91	7.5	93	19.6	61.9	34.6	2,131	2,481
Lariat	Pinto	91	5.5	90	20.3	60.4	38.2	2,365	2,444
Monterrey	Pinto	91	8.0	95	19.8	62.1	33.9	2,528	2,372
ND Falcon	Pinto	93	8.3	96	20.5	58.7	34.7	2,227	2,391
ND Palomino	Pinto	92	6.5	87	19.7	59.8	33.7	1,943	2,228
Stampede	Pinto	88	8.0	94	19.8	60.3	31.6	2,009	2,287
Torreon	Pinto	89	7.5	95	19.8	62.2	34.3	1,874	2,393
Vibrant	Pinto	87	6.5	89	20.3	62.0	30.1	1,597	2,211
Windbreaker	Pinto	84	7.5	93	19.8	59.3	36.4	1,863	2,290
Merlot	Small Red	91	6.8	93	20.4	61.9	31.1	2,008	2,124
Viper	Small Red	91	7.8	97	20.3	62.4	24.5	2,013	2,297
Mean		91	7.7	94	20.5	62.7	27.1	2,026	2,275
CV %		2	13	3.7	2.1	0.4	4.4	11.7	--
LSD 0.05		2.5	1.4	4.9	0.6	0.4	1.7	340	--
LSD 0.10		2.1	1.2	4.1	0.5	0.3	1.4	284	--

Planted: June 2. Harvested: Sept. 8. Previous crop: spring wheat.

<sup>1</sup>Growth Habit: Scored on scale of 1 to 9; 1 = longer vine, low-stature plant, pods lower to ground; 9 = very upright plant stature, pods held well off ground.

<sup>2</sup>Direct Harvest: A relative score to estimate the percent of beans that would be harvested successfully in a direct/straight harvest system.

<sup>3</sup>Three-year average is for 2019, 2020 and 2022 as 2021 trial was lost due to drought.

<sup>4</sup>Days after planting.

**Table 5. 2022 Dry Bean Variety Trial - Irrigated - Carrington - Authors, M. Ostlie, K. Simons, H. Eslinger and S. Eslinger.**

Variety	Market Class	Maturity (DAP) <sup>3</sup>	Growth Habit <sup>1</sup> (1-9)	Direct Harvest <sup>2</sup> (%)	Protein (%)	Test Weight (lb/bu)	100 Seed Weight (gram)	Seed Yield	
								2022	3-yr. Avg.
Ace	Black	94	7.8	97	22.0	64.4	19.5	3,044	--
Black Tails	Black	94	7.3	95	22.0	64.9	19.5	2,999	2,907
Eclipse	Black	94	6.5	89	21.3	64.3	19.7	2,593	2,571
ND Twilight	Black	96	7.3	95	20.3	65.3	20.7	2,936	2,756
Zorro	Black	96	6.8	94	21.1	64.3	18.4	2,094	--
ND Pegasus	Great Northern	98	4.5	88	19.7	61.9	34.2	3,654	3,521
Armada	Navy	95	8.5	97	21.7	64.0	18.2	2,793	--
Blizzard	Navy	96	8.0	95	22.0	64.3	16.3	2,794	2,961
HMS Medalist	Navy	96	8.0	97	21.7	64.4	15.3	3,026	3,005
ND Polar	Navy	98	6.8	96	21.9	64.5	17.7	3,322	2,804
T9905	Navy	96	8.0	97	22.0	64.4	19.7	2,915	2,850
Rosetta	Pink	97	6.0	86	19.7	61.9	32.3	2,038	--
Cowboy	Pinto	92	6.8	89	19.6	61.2	33.7	2,844	3,056
La Paz	Pinto	95	6.0	89	19.6	62.0	32.0	2,772	2,910
Lariat	Pinto	98	3.5	73	20.4	61.1	35.5	3,470	3,034
Monterrey	Pinto	96	6.0	89	19.9	62.3	31.5	2,977	3,088
ND Falcon	Pinto	99	6.3	94	21.6	58.3	34.5	3,064	2,780
ND Palomino	Pinto	99	4.5	80	19.9	59.6	34.7	2,733	2,748
Stampede	Pinto	92	6.3	93	20.2	59.7	33.0	2,986	3,055
Torreon	Pinto	94	6.8	94	19.9	61.9	35.8	2,548	3,005
Vibrant	Pinto	90	6.5	91	19.8	61.1	30.4	2,199	2,894
Windbreaker	Pinto	92	4.8	81	20.2	59.0	36.8	2,659	2,806
Merlot	Small Red	98	4.0	75	20.3	61.4	33.6	2,410	2,618
Viper	Small Red	97	6.5	95	20.3	62.4	23.9	3,009	3,075
Mean		95	6.4	90	20.7	62.4	26.9	2,828	2,922
CV %		1.2	15	7.6	2.6	0.7	2.9	11.1	--
LSD 0.05		1.7	1.3	9.6	0.7	0.6	1.1	462	--
LSD 0.10		1.4	1.1	8.0	0.6	0.5	0.9	387	--

Planted: June 2. Harvested: Sept. 21. Previous crop: winter rye.

<sup>1</sup>Growth Habit: Scored on scale of 1 to 9; 1 = longer vine, low-stature plant, pods lower to ground; 9 = very upright plant stature, pods held well off ground.

<sup>2</sup>Direct Harvest: A relative score to estimate the percent of beans that would be harvested successfully in a direct/straight harvest system.

<sup>3</sup>Days after planting.

**Table 6. 2022 Dry Bean Variety Trial - Irrigated - Oakes (Carrington REC) - Authors, H. Eslinger and S. Eslinger.**

Variety	Market Class	Maturity (DAP) <sup>1</sup>	Seeds/ Pound (seeds)	100 Seed Weight (gram)	Test Weight (lb/bu)	Seed Yield	
						2022	3-yr. Avg.
						----- (lb/a) -----	
Black Tails	Black	87	2,340	19.4	64.1	3,419	2,488
Eclipse	Black	87	2,257	20.1	63.6	3,750	2,833
ND Twilight	Black	88	1,988	22.8	65.2	4,210	--
Zorro	Black	88	2,365	19.2	64.0	3,409	--
ND Pegasus	Great Northern	92	1,207	37.6	61.7	5,228	3,655
Rosetta	Pink	88	1,267	35.8	60.6	4,203	--
Merlot	Small Red	93	1,302	34.9	60.4	3,996	2,949
Viper	Small Red	90	1,651	27.5	61.3	4,222	2,988
Mean		89	1,797	27.2	62.6	4,054	2,983
CV %		0.8	2.7	2.8	0.7	5.9	-
LSD 0.05		1.0	71	1.1	0.6	351	--
LSD 0.10		0.9	59	0.9	0.5	290	--

Footnotes below table 8.

**Table 7. 2022 Pinto Bean Variety Trial - Irrigated - Oakes (Carrington REC) - Authors, H. Eslinger and S. Eslinger.**

Variety	Market Class	Maturity (DAP) <sup>1</sup>	Seeds/ Pound (seeds)	100 Seed Weight (gram)	Test Weight (lb/bu)	Seed Yield	
						2022	3-yr. Avg.
						----- (lb/a) -----	
Cowboy	Pinto	87	1,190	38.2	61.1	4,879	--
La Paz	Pinto	90	1,301	34.9	61.3	4,966	3,569
Lariat	Pinto	90	1,171	38.8	60.5	4,012	3,309
Monterrey	Pinto	90	1,324	34.3	61.3	4,803	3,628
ND Falcon	Pinto	92	1,236	36.7	58.1	3,357	2,985
ND Palomino	Pinto	89	1,203	37.7	59.3	4,795	3,377
Stampede	Pinto	87	1,259	36.0	58.8	4,015	2,943
Torreón	Pinto	89	1,194	38.0	61.6	4,421	3,161
Vibrant	Pinto	87	1,167	39.9	61.8	4,307	3,278
Windbreaker	Pinto	87	1,124	40.4	59.2	4,698	3,559
Mean		89	1,217	37.5	60.3	4,425	3,312
CV %		1.1	5.3	6.7	1.0	7.3	--
LSD 0.05		1.5	92	3.6	0.9	474	--
LSD 0.10		1.2	77	3.0	0.7	394	--

Footnotes below Table 8.

**Table 8. 2022 Navy Bean Variety Trial - Irrigated - Oakes (Carrington REC) - Authors, H. Eslinger and S. Eslinger.**

Variety	Market Class	Maturity (DAP) <sup>1</sup>	Seeds/ Pound (seeds)	100 Seed Weight (gram)	Test Weight (lb/bu)	Seed Yield	
						2022	3-yr. Avg.
						----- (lb/a) -----	
Armada	Navy	89	2,273	20.0	62.5	3,910	--
Blizzard	Navy	90	2,418	18.8	63.3	3,993	2,915
HMS Medalist	Navy	90	2,532	17.9	63.6	3,813	--
ND Polar	Navy	89	2,432	18.7	62.8	4,115	2,775
T9905	Navy	89	2,133	21.3	63.6	3,993	3,034
Mean		89	2,357	19.3	63.2	3,965	2,908
CV %		0.7	2.7	2.6	1.0	8.1	--
LSD 0.05		0.9	99	1	0.9	493	--
LSD 0.10		0.8	81	1	0.8	403	--

Planted: June 4. Harvested: Sept. 12 and 14. Previous crop: onion.

<sup>1</sup>Days after planting.

**Table 9. 2022 Dry Bean Variety Trial - Wishek (Carrington REC) - Authors, M. Ostlie and K. Simons.**

Variety	Market Class	Growth		Protein	Test Weight	Seed Yield
		Maturity (DAP) <sup>2</sup>	Habit <sup>1</sup> (1-9)			
Eclipse	Black	97	4.3	21.2	60.7	1,566
ND Twilight	Black	96	4.3	21.2	62.8	1,821
Blizzard	Navy	98	4.8	20.7	62.6	1,788
ND Polar	Navy	99	3.5	22.5	62.5	1,566
ND Falcon	Pinto	97	3.0	20.4	54.5	1,747
ND Palomino	Pinto	98	4.5	20.0	56.6	1,651
Torreon	Pinto	96	4.0	19.9	57.6	1,811
Vibrant	Pinto	97	4.5	20.2	58.3	1,916
Mean		97	4.1	20.8	59.4	1,733
CV %		1.0	18.9	2.3	1.0	14.1
LSD 0.05		1.5	1.1	0.7	0.9	359
LSD 0.10		1.2	0.9	0.6	0.7	297

Planted: June 3. Harvested: Sept. 28. Previous crop: spring wheat.

<sup>1</sup>Growth Habit: Scored on scale of 1 to 9; 1 = longer vine, low-stature plant, pods lower to ground; 9 = very upright plant stature, pods held well off ground.

<sup>2</sup>Days after planting.

**Table 10. 2022 Dry Bean Variety Trial - Hettinger - Authors, J. Rickertsen and M. Wells.**

Variety	Market Class	Plant Height (inch)	Test Weight (lb/bu)	Seed Yield				
				2020	2021	2022	2-yr. Avg.	3-yr. Avg.
Black Tails	Black	17	60.8	1,151	730	946	838	942
Eclipse	Black	20	59.8	1,250	457	983	720	897
ND Twilight	Black	16	62.9	1,073	663	1,018	840	918
Zorro	Black	20	57.0	--	753	768	760	--
ND Pegasus	Great Northern	21	57.8	1,342	740	1,404	1,072	1,162
Armada	Navy	19	59.8	--	--	915	--	--
Blizzard	Navy	20	59.6	787	448	894	671	710
HMS Medalist	Navy	20	59.8	962	474	868	671	768
ND Polar	Navy	17	60.7	819	709	964	836	831
T9905	Navy	22	61.5	878	580	1,078	829	845
Rosetta	Pink	19	56.5	--	738	736	737	--
Cowboy	Pinto	18	56.0	--	586	1,230	908	--
La Paz	Pinto	17	56.9	1,139	819	965	892	974
Lariat	Pinto	21	55.6	1,159	690	1,177	934	1,009
Monterrey	Pinto	17	56.5	1,036	809	1,129	969	991
ND Falcon	Pinto	18	55.2	1,105	746	1,115	930	989
ND Palomino	Pinto	20	55.1	1,019	801	1,072	936	964
Stampede	Pinto	18	55.8	1,207	714	1,218	966	1,046
Torreon	Pinto	20	57.7	1,031	895	1,250	1,073	1,059
Vibrant	Pinto	18	56.0	1,150	569	908	739	876
Windbreaker	Pinto	18	55.0	1,070	640	560	600	757
Merlot	Small Red	22	56.3	794	654	782	718	743
Viper	Small Red	18	59.3	1,257	1,042	1,236	1,139	1,178
Mean		19	57.9	1,065	694	1,009	854	929
C.V. %		9.9	1.7	12.2	18.7	12.8	16.6	13.5
LSD 0.05		3.1	1.4	184	187	178	295	208
LSD 0.10		2.5	1.1	154	156	138	244	173

Planted: May 27. Harvested: Sept.19. Previous crop: spring wheat.



**Table 11. 2022 Dry Bean Variety Trial - Langdon - Authors, B. Hanson, L. Henry and R. Duerr.**

Variety	Market Class	Days to Maturity	Plant Height	100 Seed Weight	Seed Yield				
					2020	2021	2022	2-yr. Avg.	3-yr. Avg.
		(DAP) <sup>1</sup>	(inch)	(gram)	------(lb/a)-----				
Black Tails	Black	109	20	18.8	3,759	2,063	3,463	2,763	3,095
Eclipse	Black	108	19	18.6	3,634	2,049	3,132	2,590	2,938
ND Twilight	Black	106	20	19.2	3,205	1,522	2,901	2,211	2,543
Zorro	Black	108	20	18.4	--	1,899	2,421	2,160	--
ND Pegasus	Great Northern	111	23	34.5	--	2,320	4,098	3,209	--
Armada	Navy	108	20	20.5	--	--	3,194	--	--
Blizzard	Navy	109	22	17.9	3,321	1,962	3,350	2,656	2,878
HMS Medalist	Navy	113	19	15.5	3,891	2,197	2,847	2,522	2,978
ND Polar	Navy	113	20	16.9	--	--	3,172	--	--
T9905	Navy	109	20	20.1	3,781	1,835	3,326	2,580	2,981
Rosetta	Pink	112	20	32.2	--	2,044	2,580	2,312	--
Cowboy	Pinto	107	21	34.3	--	1,638	3,074	2,356	--
La Paz	Pinto	108	20	34.8	3,693	1,827	3,155	2,491	2,892
Lariat	Pinto	108	22	36.2	3,455	1,714	3,026	2,370	2,732
Monterrey	Pinto	109	19	34.6	3,807	2,105	3,189	2,647	3,034
ND Falcon	Pinto	107	23	32.7	3,114	1,695	3,278	2,486	2,696
ND Palomino	Pinto	110	18	32.2	3,020	1,585	2,632	2,108	2,412
Stampede	Pinto	106	20	32.2	3,899	2,028	3,432	2,730	3,120
Torreón	Pinto	107	22	36.2	3,804	2,165	3,558	2,862	3,176
Vibrant	Pinto	109	23	30.7	4,033	2,114	3,626	2,870	3,258
Windbreaker	Pinto	105	19	33.8	3,876	1,587	2,490	2,039	2,651
Merlot	Small Red	110	20	33.3	3,089	2,036	2,875	2,456	2,667
Viper	Small Red	110	22	26.1	3,329	2,587	3,422	3,004	3,113
Mean		109	21	27.4	3,571	1,951	3,141	2,544	2,892
CV %		1.5	7.2	2.6	7.8	9.5	8.9	9.9	8.3
LSD 0.05		2.6	2.5	1.2	446	235	463	525	401
LSD 0.10		2.2	2.0	1.0	371	197	336	434	333

Planted: May 27. Harvested: Sept. 29.

<sup>1</sup>Days after planting.

**Table 12. 2022 Dry Bean Variety Trial - Minot - Authors, E. Eriksmoen, A. Kraklau and J. Hansen.**

Variety	Market Class	Plant Height	Test Weight	100 Seed Weight	Seed Yield	
					2022	2-yr. Avg. <sup>1</sup>
		(inch)	(lb/bu)	(grams)	-----lb/a-----	
Black Tails	Black	14	65.9	16.0	864	1,308
Eclipse	Black	17	65.8	16.7	1,377	1,656
ND Twilight	Black	14	68.1	16.8	1,105	--
Zorro	Black	15	65.7	15.9	1,113	--
ND Pegasus	Great Northern	19	64.1	32.2	2,531	--
Rosetta	Pink	18	64.9	30.0	1,869	--
Centennial	Pinto	17	62.6	31.7	1,060	1,141
Cowboy	Pinto	18	63.6	33.9	1,736	--
Croissant	Pinto	17	64.3	30.6	1,663	1,533
DR Wood	Pinto	17	64.2	32.3	2,103	1,968
La Paz	Pinto	17	64.9	32.0	1,646	1,756
Lariat	Pinto	20	63.9	34.5	2,345	2,148
Monterrey	Pinto	17	65.8	31.2	2,303	2,373
ND Falcon	Pinto	16	61.7	31.4	1,917	1,715
ND Palomino	Pinto	16	61.9	32.6	1,844	1,805
Stampede	Pinto	17	63.9	28.9	1,902	1,832
Torreon	Pinto	16	65.0	33.3	1,566	1,694
Vibrant	Pinto	18	62.9	29.3	1,882	1,913
Windbreaker	Pinto	14	62.5	35.5	1,882	1,986
Merlot	Small Red	18	65.1	31.7	2,537	--
Viper	Small Red	17	66.6	24.1	2,258	2,214
Mean		17	64.4	28.8	1,781	1,803
C.V. %		9.9	0.6	4.3	8.5	13.9
LSD 0.05		3.0	0.7	2.1	248	536
LSD 0.10		2.0	0.6	1.7	207	440

Planted: May 31. Harvested: Sept. 21. Previous crop: spring wheat.

<sup>1</sup>Two-year average 2020 and 2022.

**Table 13. 2022 Dry Bean Variety Trial - Irrigated - Williston - Authors, J. Jacobs, T. Tjelde and A. Turnquist.**

Variety	Market Class	Days to Maturity (DAP) <sup>3</sup>	Seeds/ Pound (seeds)	Test Weight (lb/bu)	100 Seed Weight (gram)	Seed Yield		
						2022	2-Yr. Avg. <sup>1</sup>	3-Yr. Avg. <sup>2</sup>
						------(lb/a)-----		
Black Tails	Black	100	2,830	65.4	16.0	1,324	2,015	1,939
Eclipse	Black	104	3,077	64.0	15.0	1,630	1,842	1,742
ND Twilight	Black	104	2,732	66.2	17.0	1,472	--	--
Zorro	Black	105	3,117	64.3	15.0	1,092	1,258	1,226
ND Pegasus	Great Northern	106	1,494	61.5	30.5	3,117	3,475	2,917
Armada	Navy	105	2,503	63.1	18.0	1,403	--	--
Blizzard	Navy	108	2,966	64.0	15.3	1,501	1,474	1,332
HMS Medalist	Navy	105	3,279	64.9	13.9	1,735	--	--
ND Polar	Navy	106	2,688	64.0	17.0	2,069	2,301	1,968
T9905	Navy	106	2,578	64.5	18.0	1,699	2,013	1,749
Rosetta	Pink	107	1,634	63.2	27.8	1,902	1,703	1,594
Cowboy	Pinto	102	1,464	60.9	31.0	2,467	--	--
La Paz	Pinto	105	1,385	62.1	32.8	2,448	3,353	2,711
Lariat	Pinto	106	1,379	61.3	33.0	2,509	3,154	2,734
Monterrey	Pinto	105	1,382	59.7	33.1	2,929	3,254	2,737
ND Falcon	Pinto	104	1,439	59.8	31.7	2,736	2,999	2,512
ND Palomino	Pinto	107	1,418	59.2	32.0	2,012	2,709	2,360
Stampede	Pinto	105	1,369	60.9	33.0	2,539	2,623	2,373
Torreón	Pinto	105	1,492	61.7	30.7	2,406	2,737	2,388
Vibrant	Pinto	104	1,562	59.8	29.1	1,989	2,137	1,947
Windbreaker	Pinto	104	1,349	59.4	33.7	2,099	2,110	2,054
Merlot	Small Red	101	1,602	62.1	29.0	1,907	2,097	2,058
Viper	Small Red	102	1,912	63.9	23.8	2,617	3,193	2,708
Mean		104	2,028	62.4	25.1	2,070	2,445	2,161
C.V. %		--	4.4	1.0	4.9	13.5	16.3	20.3
LSD 0.05		--	147	1.1	2.0	459	837	727
LSD 0.10		--	123	0.9	1.7	383	691	606

Planted: May 25. Harvested: Sept. 21. Previous crop: barley.

<sup>1</sup>2-Year average 2020 and 2022.<sup>2</sup>3-Year average 2019, 2020 and 2022.<sup>3</sup>Days after planting.

**Table 14. Pinto Bean Variety Descriptions.**

Class and Cultivar	Origin/owner	RM <sup>1</sup>	Plant Type <sup>2</sup>
<b><u>PINTO</u></b>			
Centennial	Colorado State. Univ	ML	UV
Cowboy	Provita/ADM	ML	UV
Croissant	Colorado State. Univ	ML	UV
La Paz	Provita/ADM	L	USV
Lariat	NDSU	L	USV
Monterrey	Provita/ADM	ME	USV
ND Falcon	NDSU	L	USV
ND Palomino <sup>3</sup>	NDSU	ME	USV
Stampede	NDSU	M	USV
Torreon	Provita/ADM	M	USV
Vibrant <sup>3</sup>	Provita/ADM	E	USV
Windbreaker	Seminis	M	UV

<sup>1</sup>RM = Relative Maturity; E = Early; ME = Medium Early;

M = Medium; ML = Medium Late; L = Late.

<sup>2</sup>V = Vine; UV = Upright Vine; USV = Upright Short Vine;

<sup>3</sup>Slow darkening cultivar.

**Table 15. Navy Bean Variety Descriptions.**

Class and Cultivar	Origin/owner	RM <sup>1</sup>	Plant Type <sup>2</sup>
<b><u>NAVY</u></b>			
Armada	Provita/ADM	ML	USV
Blizzard	Provita/ADM	M	USV
HMS Medalist	AmeriSeed/ADM	M	UV
ND Polar	NDSU	M	USV
T9905	Hyland	M	USV

<sup>1</sup>RM = Relative Maturity; M = Medium; ML = Medium Late.

<sup>2</sup>UV = Upright Vine; USV = Upright Short Vine;

**Table 16. Black, Great Northern, Pink and Small Red Bean Variety Descriptions**

Class and Cultivar	Origin	RM <sup>1</sup>	Plant Type <sup>2</sup>
<b><u>BLACK</u></b>			
Ace	ADM	M	USV
Black Tails	Provita	M	USV
Eclipse	NDSU	M	USV
ND Twilight	NDSU	ME	USV
Zorro	MSU	L	USV
<b><u>GREAT NORTHERN</u></b>			
ND Pegasus	NDSU	ML	UV
<b><u>PINK</u></b>			
Rosetta	MSU/ARS	M	USV
<b><u>SMALL RED</u></b>			
Merlot	MSU	ME	USV
Viper	Provita	M	USV

<sup>1</sup>RM = Relative Maturity; ME = Medium Early;

M = Medium; ML = Medium Late; L = Late.

<sup>2</sup>UV = Upright Vine; USV = Upright Short Vine.

**NDSU does not endorse commercial products or companies even though reference may be made to tradenames, trademarks or service names.**

**For more information on this and other topics, see [www.ag.ndsu.edu](http://www.ag.ndsu.edu)**

NDSU encourages you to use and share this content, but please do so under the conditions of our Creative Commons license. You may copy, distribute, transmit and adapt this work as long as you give full attribution, don't use the work for commercial purposes and share your resulting work similarly. For more information, visit [www.ag.ndsu.edu/agcomm/creative-commons](http://www.ag.ndsu.edu/agcomm/creative-commons).

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable. Direct inquiries to Vice Provost for Title IX/ADA Coordinator, Old Main 201, NDSU Main Campus, 701-231-7708, [ndsu.eoaa.ndsu.edu](http://ndsu.eoaa.ndsu.edu). This publication will be made available in alternative formats for people with disabilities upon request, 701-231-7881.