

A1469-25 (December 2025)

North Dakota Dry Pea

Variety Trial Results for 2025 and Selection Guide

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North Dakota remains the leading dry pea-producing state in the U.S., consistently accounting for a large share of national acreage and production. According to USDA-NASS, the 2025 season reported roughly **375,000 acres of dry peas harvested**, with an average yield of about **2,450 pounds per acre**, reflecting solid performance despite variable weather patterns. Planting progressed early and fairly well: by late May, dry pea planting was reported at ~84% with about half the crop emerged, giving peas a relatively good start compared to some other crops. Recent NDSU Extension summaries also highlight that field pea yields in the state have shown steady improvement over the past decade due to better genetics, stronger disease management and more refined agronomic practices. While annual fluctuations occur — largely driven by moisture, early-season soil conditions and root-disease pressure — North Dakota's pulse-growing regions continue to demonstrate strong productivity and are central to both domestic and international dry pea markets.

The results of WREC, HREC, and NCREC are not included in this publication due to severe hail damage and high disease pressure.

This selection guide summarizes dry pea variety performance at the various NDSU Research Extension Centers. Give special attention to dry pea yield results of those trials nearest to your production area when evaluating varieties in these trials. Also, attempt to view yield averages of several years rather than using only one year's data as a determining factor. In addition, consider other agronomic characteristics — such as maturity, lodging score and protein percentages — if available.

The agronomic data presented are from replicated research plots using experimental designs that enable the use of statistical analysis. The least significant difference numbers beneath the columns in tables are derived from the statistical analyses. If the difference between two varieties exceeds the LSD value, it means that with 95% or 90% probability (LSD 0.05 or 0.10), 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 coefficient of variation is a measure of variability in the trial and is expressed as a percentage. Large CVs mean a large amount of variation that could not be attributed to differences in the varieties. Only compare values within the table and look for trends for the desired trait among different experimental sites and years.

Variety trial data from all NDSU Research Extension Centers for all crops can be found at www.ag.ndsu.edu/varietytrials and the variety selection tool at <https://vt.ag.ndsu.edu/>.

Research specialists and technicians contributed to the fieldwork and data compilation. Administrative assistants in entering data into the respective sections of this document. We greatly appreciate the assistance provided by everyone involved.

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.

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Table 1. Field Pea - Recrop

Dickinson, ND

Variety	Brand	Days to Flower	Days to Mature	1000 Seed Weight	Seeds per Pound	Plant Height	Test Weight	Protein	--Grain Yield--			Average Yield	
		days	days	g		in	lbs/bu	%	2023	2024	2025	2 Year	3 Year
-----bu/ac-----													
--bu/ac--													
Yellow Types													
DS Admiral	Pulse USA	58	92	257	1,767	27	66.1	26.1	24.2	50.0	56.5	53.3	43.6
CDC Inca	Meridian Seeds	60	95	256	1,772	32	66.9	25.8	27.3	45.9	62.5	54.2	45.2
ND Dawn	NDSU	55	96	259	1,748	27	66.0	25.5	23.2	51.1	54.6	52.8	43.0
AAC Julius	NDSU	60	96	249	1,824	28	66.9	26.1	33.6	49.2	60.8	55.0	47.8
CP5222Y	Croplan	54	95	299	1,520	28	67.9	26.7	27.9	40.8	59.9	50.3	42.8
MS GrowPro	Meridian Seeds	55	96	324	1,398	28	67.0	27.1	28.9	48.0	59.3	53.7	45.4
MS Prostar	Meridian Seeds	58	95	274	1,658	27	67.6	25.6	31.5	53.9	59.6	56.8	48.3
AAC Beyond	Meridian Seeds	59	96	255	1,779	29	67.6	25.8	36.1	45.7	64.1	54.9	48.6
AAC Carver	Meridian Seeds	57	94	261	1,735	31	67.1	24.5	--	51.3	58.7	55.0	--
CDC Engage	Alliance Seeds	60	97	268	1,690	31	68.0	25.9	--	--	67.3	--	--
21162	Peterson Farms	61	97	273	1,663	30	67.2	28.4	--	--	57.2	--	--
21163	Peterson Farms	61	98	261	1,742	28	66.7	28.2	--	--	57.3	--	--
GTPR004	GeneTech	60	97	259	1,754	27	67.1	26.5	--	51.0	57.3	54.2	--
GTPR005	GeneTech	59	96	258	1,761	27	66.9	26.4	--	53.5	58.2	55.9	--
GTPR007	GeneTech	60	96	272	1,667	29	68.0	25.9	--	--	61.3	--	--
Orchestra	Premier Genetics	54	97	304	1,491	29	68.1	27.7	25.3	53.4	65.4	59.4	48.0
PG Bank	Premier Genetics	59	97	267	1,700	27	67.1	26.4	--	--	54.5	--	--
PG Cash	Premier Genetics	57	92	276	1,646	27	66.9	26.7	35.2	51.1	64.4	57.7	50.2
PG Prairie	Premier Genetics	59	97	281	1,613	31	68.4	25.7	--	38.8	57.4	48.1	--
Green Types													
PG Greenback	Premier Genetics	60	96	264	1,720	31	67.5	24.8	33.0	49.9	66.1	58.0	49.6
Aragorn	Pulse USA	54	92	238	1,904	25	65.1	27.1	21.6	37.2	48.0	42.6	35.6
Arcadia	Pulse USA	58	94	232	1,952	25	66.5	25.5	25.5	45.6	59.1	52.3	43.4
ND Victory	NDSU	58	100	228	1,990	33	66.3	26.0	24.5	23.0	54.7	38.9	34.1
Trial Mean		58	96	260	1,756	28	67.0	26.3	27.9	46.8	59.0	--	--
CV (%)		2.4	0.7	1.6	1.6	7.2	0.5	1.4	9.1	7.7	5.2	--	--
LSD (10%)		1	1	4	26	2	0.3	0.3	2.0	3.3	2.8	--	--

Planting Date: April 23, 2025

Harvest Date: August 6, 2025

Previous Crop: oat hay

Seeding Rate: 325,000 live seeds/ac

Grain protein percentages reported on 0% moisture basis

Table 2. Field Pea

Carrington

		--- Harvest Ease ---							----- Yield -----				
Variety	Brand	Vine Length	Days to Flower	Days to Maturity	Canopy Height	2025	3-yr. Avg.	Protein	1000 KWT	Seeds/ Pound	Test Weight	2025	3-yr. Avg.
		inches	days	days	inches	----- (1 - 9) -----		%	g		lb/bu	----- bu/a -----	
Yellow Type													
DS Admiral	Pulse USA	28	52	86	13	7	6.1	26.1	258	1760	62.2	60.6	49.3
CDC Inca	Meridian Seeds	36	55	92	19	5	4.6	27.3	251	1811	63.7	66.9	59.6
ND Dawn	NDSU	27	53	87	15	7	6.1	25.8	264	1722	61.8	60.7	53.8
AAC Julius	NDSU	28	53	87	17	7	5.0	27.8	235	1931	63.1	64.8	58.8
CP5222Y	Croplan	25	52	91	20	5	--	28.1	303	1498	62.5	63.7	--
CP5411Y	Croplan	27	54	89	16	6	--	25.8	255	1780	62.5	62.7	--
MS Growpro	Meridian Seeds	30	53	92	22	5	4.4	29.1	338	1344	63.0	66.3	57.4
MS Prostar	Meridian Seeds	29	54	92	14	7	6.0	26.8	262	1735	63.0	62.4	54.6
AAC Beyond	Meridian Seeds	28	54	89	13	7	6.1	23.6	236	1922	60.2	58.7	60.2
AAC Carver	Meridian Seeds	33	54	88	17	6	--	27.0	264	1721	62.8	69.5	--
CDC Engage	Alliance Seed	32	56	95	22	5	--	26.3	254	1789	64.1	77.8	--
21162	Peterson Farms Seed	33	55	94	23	3	--	30.1	251	1808	63.4	63.9	--
21163	Peterson Farms Seed	36	57	94	15	7	--	28.3	244	1899	62.4	66.1	--
GTPR004	GeneTech	31	55	94	20	6	--	27.8	243	1869	63.7	67.6	--
GTPR005	GeneTech	29	55	92	21	6	--	27.3	254	1789	63.4	66.3	--
GTPR007	GeneTech	29	56	92	23	3	--	26.2	264	1717	64.2	67.3	--
Orchestra	Premier Genetics	26	52	88	14	7	--	28.8	308	1473	62.4	62.7	--
PG Bank	Premier Genetics	31	54	92	19	5	--	26.6	265	1714	63.9	59.6	--
PG Cash	Premier Genetics	29	53	86	17	7	5.2	26.2	280	1621	62.4	62.1	57.3
PG Prairie	Premier Genetics	29	54	86	22	4	--	27.7	261	1744	63.5	77.5	--
BX26p932	Benson Hill	32	55	94	21	6	--	30.1	209	2181	63.2	61.4	--
BX26p688	Benson Hill	32	53	96	24	4	--	29.7	250	1817	64.1	62.6	--
BX26p177	Benson Hill	30	52	96	23	4	--	29.9	239	1897	62.9	54.0	--
BX26p575	Benson Hill	31	53	95	15	7	--	29.2	245	1857	63.6	58.3	--
Green Type													
PG Greenback	Premier Genetics	37	56	92	20	6	5.1	26.3	258	1760	63.3	69.4	63.9
Aragorn	Pulse USA	28	51	89	11	8	7.6	26.8	245	1856	62.6	47.9	43.8
Arcadia	Pulse USA	22	53	88	9	8	7.5	26.0	225	2019	50.9	47.7	45.4
ND Victory	NDSU	36	56	96	23	5	3.8	27.2	211	2161	63.5	65.3	52.3
Dun Marketclass Type													
CDC Dakota	Premier Genetics	31	57	94	20	5	--	29.8	206	2208	62.6	64.2	--
Trial Mean		30	54	91	18	6	--	27.5	252	1823	62.7	63.4	--
CV (%)		11	1	4	17	17	--	5.6	4	4	6.1	9.5	--
LSD (10%)		4	1	4	3	1	--	1.8	12	89	4.5	7.1	--

Planting Date = May 6; Harvest Date = August 25; Previous Crop = Forage Barley

Harvest Ease represents the ability of the combine to harvest all the pods where 1 = no lodging and 9 = plants lying flat.

Table 3. Field Pea - Organic**Carrington**

Variety	Days to Flower	Days to Maturity	Plant Height	Lodging	Protein	KWT	Test Weight	Moisture	Yield
	days	days	inches	1 - 9	%	g/1000	lb/bu	%	bu/a
DS Admiral	52	85	32	7.0	22.6	215	63	13	32
CDC Inca	53	88	32	6.0	24.1	201	63	12	42
ND Dawn	52	85	29	7.5	22.7	209	62	13	44
PG Greenback	55	87	32	7.0	23.6	204	63	12	52
Aragorn	49	85	30	8.3	23.7	207	61	12	29
Arcadia	52	86	27	7.0	22.5	191	62	13	24
ND Victory	56	91	26	6.0	24.3	167	63	12	37
AAC Julius	54	85	32	7.0	24.9	193	62	12	53
Protecta	52	89	37	6.8	25.3	235	63	12	51
Shamrock	56	87	27	7.5	23.1	220	63	13	26
AAC Profit	55	89	28	7.0	25.0	208	62	13	52
Chrome	53	88	27	7.5	22.7	227	63	13	41
Cronos	50	87	31	6.5	25.4	255	63	12	24
Hyline	53	84	30	7.8	23.4	254	62	12	34
Flute	54	85	30	6.3	24.0	197	63	12	42
Trial Mean	53	87	30	7.0	23.8	212.1	63	13	39
CV (%)	1.6	2.0	13.4	9.7	3.0	8.7	0.7	4.3	14.9
LSD (10%)	1.0	2.0	4.8	0.8	0.9	22.0	0.5	0.6	6.9

Planting Date = May 2; Harvest Date = August 12; Previous Crop = Oat

Table 4. Field Pea											Langdon			
Variety	Brand	Days to 1st Flower	Days to Mature	Plant Height	Harvest Ease	1000 KWT	Seeds/ pound	Test Weight	Protein	Grain Yield				
		days	days	inches	1-9	g		lb/bu	%	2023	2024	2025	2-yr Avg.	3-yr Avg.
-----bu/a-----														
Yellow Type														
CDC Inca	Meridian Seeds	48	94	21	6	194	2351	64.7	26.7	77.7	90.8	65.4	78.1	77.9
AAC Julius	Valesco Genetics	47	92	17	7	188	2430	64.2	26.6	86.6	70.3	43.6	56.9	66.8
ND Dawn	NDSU	45	89	14	8	193	2350	64.0	25.4	73.7	66.0	49.4	57.7	63.0
CDC Engage	Alliance Seed	53	98	19	7	199	2290	65.4	28.1	--	--	47.6	--	--
CP5222Y	Winfield/Croplan	43	91	20	6	220	2079	63.6	28.2	81.8	81.5	57.4	69.5	73.6
CP5411Y	Winfield/Croplan	49	92	17	7	187	2455	63.5	27.3	--	--	39.6	--	--
EG25001	Evolution Genetics	45	92	20	6	199	2291	64.1	29.9	--	--	64.1	--	--
Navigator	Evolution Genetics	48	92	17	7	189	2414	63.5	25.6	--	--	48.7	--	--
GTPR004	GeneTech	52	95	16	8	186	2444	64.5	26.6	--	74.3	40.6	57.5	--
GTPR005	GeneTech	51	96	17	7	191	2385	64.1	26.3	--	75.5	45.3	60.4	--
GTPR007	GeneTech	53	95	17	7	172	2658	64.7	27.1	--	--	42.9	--	--
AAC Beyond	Meridian Seeds	49	92	15	8	179	2561	64.0	26.7	87.8	70.5	62.0	66.2	73.4
AAC Carver	Meridian Seeds	45	92	22	5	195	2331	63.9	25.3	--	91.7	63.4	77.6	--
MS GrowPro	Meridian Seeds	46	93	22	6	254	1798	63.4	29.4	80.0	87.3	60.4	73.8	75.9
MS ProStar	Meridian Seeds	48	94	20	6	200	2301	64.1	27.0	78.0	82.0	55.4	68.7	71.8
21162	Peterson Farms Seed	50	98	22	6	207	2190	64.8	29.3	--	--	50.1	--	--
21163	Peterson Farms Seed	52	96	17	7	171	2660	65.9	29.3	46.4	73.7	34.5	54.1	51.5
Protin	Photosyntech	49	91	18	7	268	1695	63.5	29.0	81.5	93.6	63.0	78.3	79.4
PSTSPS54	Photosyntech	52	93	19	7	198	2293	63.6	26.5	--	84.7	46.7	65.7	--
PSTSPS55	Photosyntech	45	90	19	6	195	2348	63.8	27.5	--	88.8	47.3	68.0	--
PSTSPS59	Photosyntech	42	90	20	6	216	2109	63.7	28.3	--	--	45.8	--	--
PSTSPS60	Photosyntech	46	93	16	8	203	2243	64.1	26.6	--	--	37.4	--	--
CDC Dakota	Premier Genetics	51	95	14	8	170	2681	63.5	30.2	--	--	41.9	--	--
Orchestra	Premier Genetics	43	91	20	6	252	1803	64.0	28.3	82.1	85.4	65.9	75.6	77.8
PG Bank	Premier Genetics	46	92	17	7	188	2430	63.9	28.1	--	80.4	50.7	65.5	--
DS Admiral	Pulse USA	43	87	15	8	219	2076	62.7	25.9	82.1	66.3	59.4	62.9	69.3
PG Cash	Premier Genetics	45	89	14	8	225	2020	62.5	27.9	75.9	83.7	66.4	75.1	75.3
PG Prairie	Premier Genetics	49	96	21	6	193	2370	64.9	26.6	--	80.4	58.2	69.3	--
2822	Valesco Genetics	48	95	20	6	177	2574	64.0	27.9	--	72.8	44.6	58.7	--
25-84 (Thor)	Valesco Genetics	43	93	19	7	228	2010	63.5	29.0	--	--	62.2	--	--
AAC Chrome	Valesco Genetics	47	97	15	8	201	2266	64.6	26.9	84.5	72.3	58.5	65.4	71.8
AAC Harrison	Valesco Genetics	47	96	21	6	186	2452	65.2	27.8	--	--	59.4	--	--
AAC IronHorse	Valesco Genetics	48	96	23	6	189	2414	64.4	26.4	--	--	45.1	--	--
AAC McMurphy	Valesco Genetics	50	96	20	6	191	2404	64.2	27.9	--	78.0	44.7	61.3	--
Green Type														
ND Victory	NDSU	51	97	24	5	148	3078	65.2	26.6	72.4	68.3	39.8	54.1	60.2
Aragorn	Pulse USA	43	90	17	7	201	2266	62.6	26.1	67.6	61.5	40.3	50.9	56.5
Arcadia	Pulse USA	44	88	11	9	189	2418	62.7	25.5	70.2	67.0	51.3	59.2	62.8
PG Greenback	Premier Genetics	52	95	23	6	196	2332	64.4	26.3	--	85.4	45.6	65.5	--
PSTSPS49	Photosyntech	50	91	22	6	176	2584	64.7	26.5	82.0	81.9	51.8	66.8	71.9
PSTSPS57	Photosyntech	48	93	21	6	188	2417	64.6	25.4	--	88.1	59.6	73.9	--
PSTSPS61	Photosyntech	47	93	22	6	203	2245	64.2	26.2	--	--	49.7	--	--
Maple Type														
PSTSPS48	Photosyntech	48	91	16	7	221	2058	63.0	27.4	80.2	72.8	49.0	60.9	67.3
Trial Mean		48	93	18	7	196	2353	64.1	27.2	78.9	76.7	50.6	--	--
CV (%)		1.9	2.1	15.6	12.6	7.9	8.9	1.2	3.6	7.4	11.4	14.7	--	--
LSD (10%)		1	2	3	1	18	246	0.9	1.1	7.9	10.2	8.7	--	--

Planting Date = May 27; Harvest Date = September 9; Previous Crop = HRSW; Soil Type = Svea-Barnes Loam

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