2025 Montana Cool-Season Spring And Winter Pulse Variety Evaluation Annual Report

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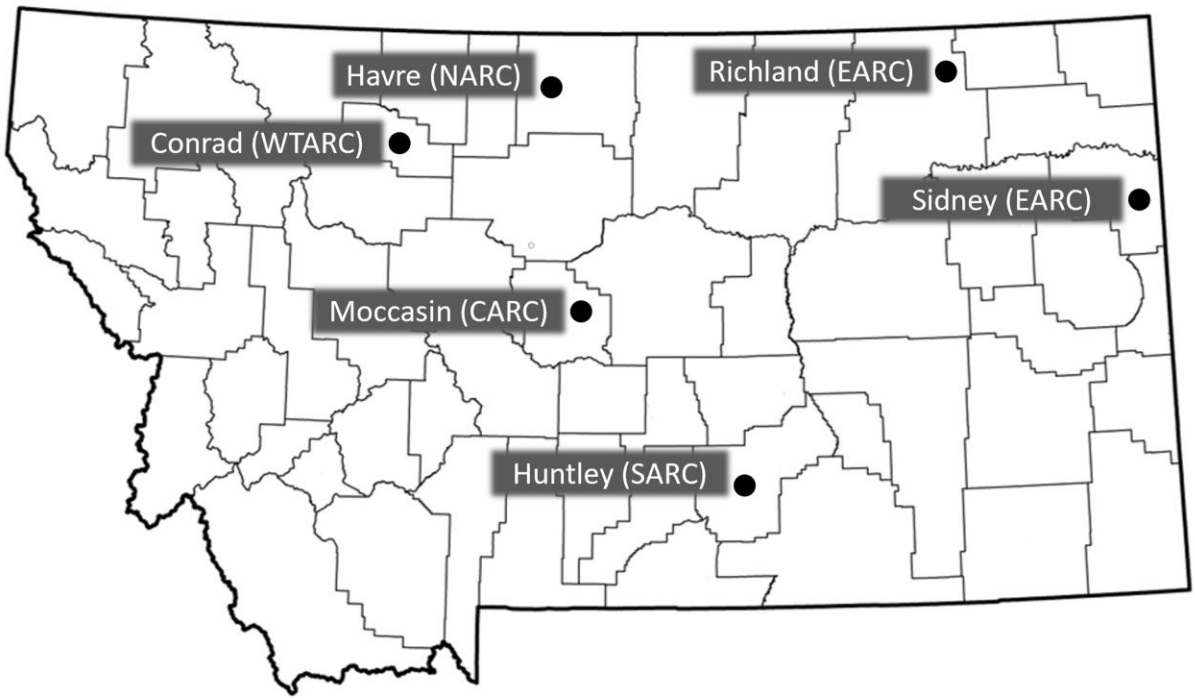

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ACKNOWLEDGEMENT

The Montana State University Eastern Agricultural Research Center in Sidney, MT coordinates an annual variety evaluation for cool season spring pulse crops (dry pea, lentil, and chickpea) at multiple locations across the state of Montana. Beginning in the fall of 2024, winter pulse crops (dry pea and lentil) were added to the program. In 2025, funding for this project was obtained from the Montana Agricultural Experiment Station, the USA Dry Pea and Lentil Council, and testing fees from private entities submitting entries for evaluation. The results provided in this report reflect the efforts of a large team of individuals from the Montana State University Agricultural Experiment Stations, Montana State University Extension, industrial partners from the seed industry and cooperating producers. The following list provides contact information for many of the individuals involved in the 2025 variety evaluation.

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PROJECT DESCRIPTION AND OBJECTIVE

Project Description

Pulse crops (dry pea, lentil and chickpea) are an important component of Montana dryland crop rotations. For more than a dozen years the Montana State University Agricultural Experiment Stations have conducted annual pulse crop variety evaluations across the state of Montana to assist the selection of adaptation, yield potential and quality of these crops. The Montana State University Eastern Agricultural Research Center (EARC) in Sidney, Montana organizes and coordinates these efforts. In the fall of 2024, winter pea and winter lentil trials were planted at three MSU Agricultural Research Centers. In 2025, spring pulse crop trials (dry pea, lentil and chickpea) were conducted at four MSU Agricultural Research Centers and a cooperating producer's field south of Richland, Montana in the northeast corner of the state. The results reported herein are intended to aid producers, seed suppliers, breeders and the research community in variety development, selection, and deployment. The report is available in both print and electronic formats (http://agresearch.montana.edu/earc/annualreports.html).

Objective

The objective of this project is to evaluate adaptation, yield, and seed quality parameters for dry pea, lentil, and chickpea cultivars and breeding lines selected by stakeholder input across a broad range of Montana environments targeting the major pulse growing regions of the state.

METHODS

Procedures and Experimental Design

Eight dry pea, six lentil and nine chickpea entries were selected by the EARC to run in spring pulse trials at all locations. In addition, seed companies and pulse breeders with an interest in Montana pulse production were invited to submit cultivars or experimental lines for evaluation in 2025. Locations available for evaluation were indicated in the invitation letter and the selection of trial locations for each entry was determined by the submitting party. Crops were planted at four dryland locations (Havre, Huntley, Moccasin, and Richland) and one irrigated location (Sidney).

Seeds for all entries were tested for germination and treated with Obvius Fungicide (BASF Corporation, Research Triangle Park, NC) and Cruiser 5FS Insecticide (Syngenta Crop Protection Inc., Greensboro, NC) according to the manufacturer's instructions. Seeds were packaged on a per plot basis to obtain live seed rates of 8, 12 and 4 live seeds per ft^2 for pea, lentil, and chickpea, respectively. Seed rates were increased to 10 and 13 live seeds per ft^2 for winter pea and winter lentil. Seeds were sent to the cooperating research centers with an appropriate commercial rhizobial inoculant to be applied at planting. Research plots were planted in a randomized complete block design with four replicates per entry. Plot size varied amongst locations and was dictated by the equipment available at each location. Management practices vary by location but are consistent with typical practices for that region. In-season measurements and harvest data were collected by each cooperating center and sent to the EARC for analysis. Grain yield data were adjusted to 13% moisture content to facilitate comparison across locations. Dry pea protein concentrations were determined for pea samples by near-infrared spectroscopy **(**NIR) at the EARC in Sidney. Analysis of variance was performed in R (version 4.2.1) and Fisher's LSD was performed from the agricolae package (version 1.3-5) for mean comparison whenever the F-test was significant at $P<0.05$.

List of collaborators and locations

The type of crop (pea, lentil, and chickpea) and number of entries for each of these crops evaluated at the different locations varied from location to location depending on the interest of seed suppliers and availability of resources at the respective location. The list of locations, collaborators and the type of crops evaluated at each location is shown in Table 1.

Table 1. Collaborators, locations, and crops evaluated in 2025

Location	Collaborator†	Irrigation	Crops evaluated at location					Observations
			Pea	Lentil	Chickpea	Winter Pea	Winter Lentil	
Havre	NARC	No	X	X	X	X	X	Spring Lentils and Chickpeas lost to hail
Huntley	SARC	No	X	X	X			All trials lost to hail
Moccasin	CARC	No	X	X	X	X	X	Winter crops dormant seeded due to lack of moisture
Richland	EARC	No	X	X	X			Ascochyta damage to chickpeas
Sidney	EARC	Yes*	X	X	X	X	X	No survival of winter crops

†CARC = Central Agricultural Research Center, EARC = Eastern Agricultural Research Center, NARC = Northern Agricultural Research Center, SARC = Southern Agricultural Research Center, 'X' indicates the collaborator participated for the specific crop variety evaluation in 2025.
* Only spring crops were planted under irrigation in Sidney.

Precipitation and Management Practices

Precipitation, site information and agronomic management practices for the respective locations are summarized in Table 2, Table 3 and Figure 1 .

Table 2. Site characteristics for each trial location

	Havre (NARC)	Moccasin (CARC)	Richland	Sidney (EARC)
Soil Type	Telstad-Joplin Loam	Danvers-Judith clay loam	Farnuf Loam	Savage Silty Clay Loam
Elevation (ft)	2690	4250	2975	2200
Seasonal Precipitation (April - August) (in)	10.0	10.4	6.5*	11.4
Average Precipitation (April - August) (in)	7.9	10.5	8.5**	10.3
Irrigation (in)				3.1

* Data collected from an onsite weather station spanning 5/1/25 to 8/6/25

** Data from Opheim, MT weather station US00246238 approximately 12 miles from trial location

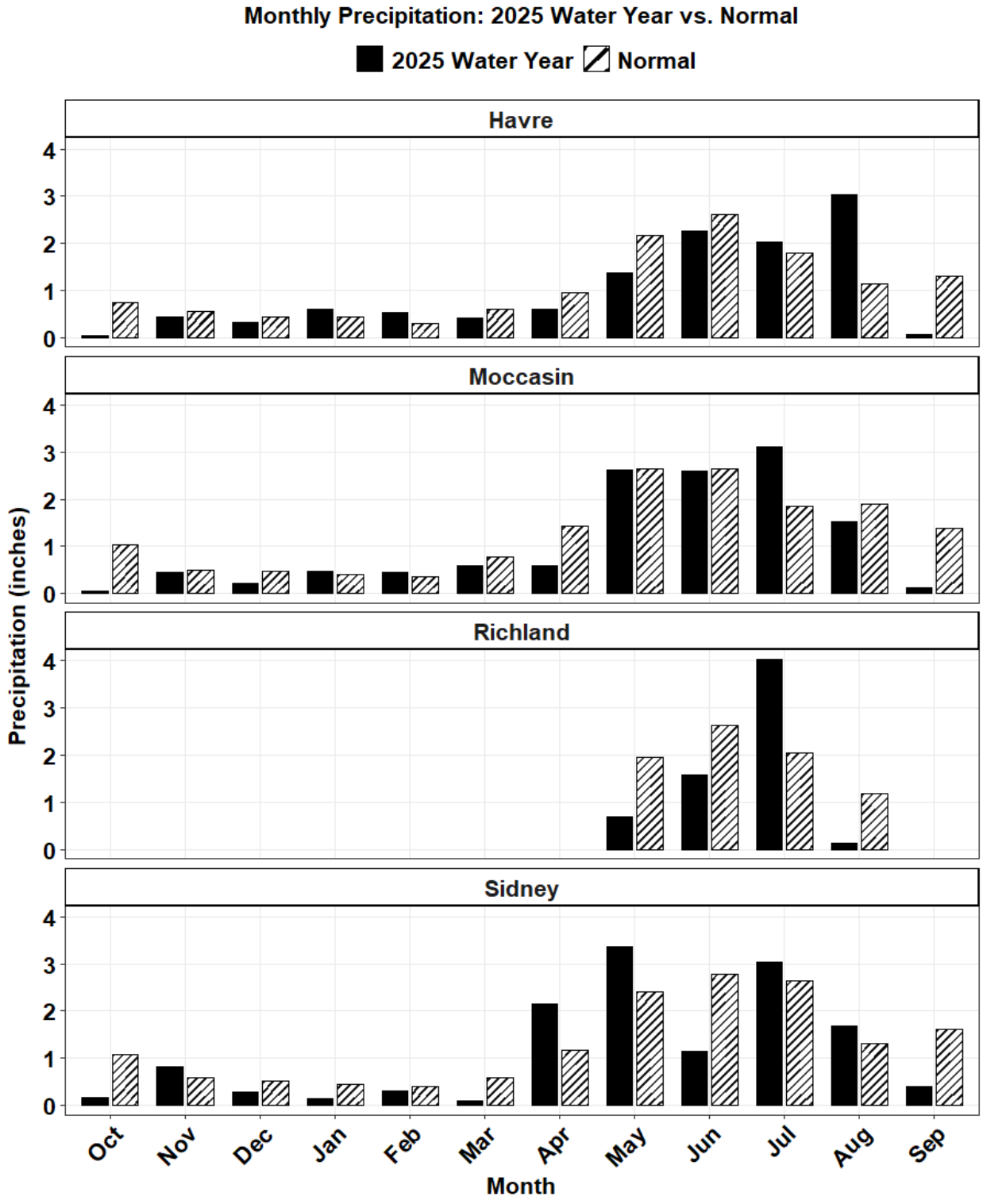
Table 3. Major agronomic management practices for each location in 2025

Location	Tillage	Seeding to Harvest Dates	Previous Crop	Fertilizer	Pesticide Applications
Pea Trials					
Havre	No-Till	4/9 to 7/25	Chem Fallow	None	Spartan Charge at 3.5 oz/a on 11/18/24; RT3 at 24 oz/a and Prowl H2O at 24 oz/a on 4/8/25
Moccasin	No-Till	4/30 to 8/13	Winter Wheat	20-30-20-10 @ 50 lb/ac	Anthem flex at 3.2 oz/a on 4/7/25; RT3 at 22 oz/a on 5/1/25; Basagran at 10 oz/a and Beyond at 4 oz/a and Grizzly Too at 2 oz/a on 5/29/25
Richland	No-Till	5/1 to 8/6	Spring Wheat	None	Fall-Valor, Spring-RoundUp/Sharpen
Sidney	No-Till	4/16 to 7/25	Spring Wheat	None	Panther at 2 oz/a on 10-14-24; Varisto at 20 oz/a and Section III at 5 oz/a on 5-31-25
Lentil Trials					
Havre	No-Till	4/9 to hail	Chem Fallow	None	Spartan Charge at 3.5 oz/a on 11/18/24; RT3 at 24 oz/a and Prowl H2O at 24 oz/a on 4/8/25
Moccasin	No-Till	4/30 to 8/18	Winter Wheat	20-30-20-10 @ 50 lb/ac	Anthem flex at 3.2 oz/a on 4/7/25; RT3 at 22 oz/a on 5/1/25
Richland	No-Till	5/1 to 8/22	Spring Wheat	None	Fall-Valor, Spring-RoundUp/Sharpen
Sidney	No-Till	4/15 to 8/7	Spring Wheat	None	Outlook @ 14 oz/a on 4/16

Table 3. Continued

Location	Tillage	Seeding to Harvest Dates	Previous Crop	Fertilizer	Pesticide Applications
Chickpea Trials					
Havre	No-Till	4/23 to hail	Chem Fallow	None	Spartan Charge at 3.5 oz/a on 11/18/24; RT3 at 24 oz/a and Prowl H2O at 24 oz/a on 4/8/25
Moccasin	No-Till	4/30 to 9/8	Winter Wheat	20-30-20-10 @ 50 lb/ac	Anthem flex at 3.2 oz/a on 4/7/25; RT3 at 22 oz/a on 5/1/25
Richland	No-Till	5/2 to 9/18	Spring Wheat	None	Fall-Valor, Spring-RoundUp/Sharpen
Sidney	No-Till	4/16 to 8/27	Spring Wheat	None	Panther at 2 oz/a on 10-14-24; Section III at 8 oz/a on 5-31-25; Tough at 24 oz/a on 6-10-25: Miravis Top at 14 oz/a on 6-17-25 and 7-13-25; Proline at 5.7 oz/a and BravoWeatherstik at 2 pt/a on 6-29-25 and 7-27-25
Winter Pea Trials					
Havre	No-Till	10/3 to 7/24	Chem Fallow	None	Spartan Charge at 3.5 oz/a and RT3 at 24 oz/a pre-plant
Moccasin	No-Till	10/16 to 8/6	Winter Wheat	20-30-20-10 @ 50 lb/ac	Prowl H2O at 24 oz/a on 10/14/24; RT3 at 20 oz/a on 10/13/24; Section III at 6 oz/a on 5/1/25, Basagran at 10 oz/a and Beyond at 4 oz/a and Mustang Maxx at 2 oz/a on 5/8/25
Winter Lentil Trials					
Havre	No-Till	10/3 to 7/30	Chem Fallow	None	RT3 at 24 oz/a pre-plant
Moccasin	No-Till	10/16 to 8/6	Winter Wheat	20-30-20-10 @ 50 lb/ac	Prowl H2O at 24 oz/a on 10/14/24; RT3 at 20 oz/a on 10/13/24; Section III at 6 oz/a on 5/1//25

Figure 1. Monthly precipitation totals by location for the 2025 water year and monthly normals



*Note: Richland data are restricted to the duration of the pea trial during which an onsite weather station was in place.

List of Varieties

Table 4 includes the list of varieties and experimental lines evaluated in 2025. Additional information for these entries can be obtained by contacting the respective seed suppliers listed in the acknowledgements section. Entries listed in this table include varieties requested by seed suppliers, varieties selected as check varieties by the Montana Agricultural Experiment Station and experimental lines from pulse crop breeding programs at Montana State University, North Dakota State University and USDA-ARS.

Table 4. Dry pea, lentil and chickpea entries included in 2025 variety evaluation trials

Crop	Entry	Seed color/size	Maturity
Dry Pea	2822	Yellow	
	21162	Yellow	
	21163	Yellow	
	25-84	Yellow	
	AAC Beyond	Yellow	Early
	AAC Carver	Yellow	Early
	AAC Chrome	Yellow	Medium
	AAC Harrison	Yellow	
	AAC IronHorse	Yellow	
	AAC Julius	Yellow	
	AAC Profit	Yellow	Medium/Late
	Aragorn	Green	Medium
	Banner	Green	
	CDC Inca	Yellow	Late
	CDC Meadow	Yellow	
	CP5222Y	Yellow	
	DS-Admiral	Yellow	Medium
	Fairway	Green	
	Ginny 2	Green	
	Hampton	Green	Medium
	McMurphy	Yellow	
	MS GrowPro	Yellow	
	MS ProStar	Yellow	
	ND Dawn	Yellow	Early
	NDP150412G	Green	

Table 4. Continued

Dry Pea	NDP170101G	Green	
	NDP170110Y	Yellow	
	NDP170181Y	Yellow	
	NDP170322Y	Yellow	
	NDP170328G	Green	
	Orchestra	Yellow	
	Passion	Green	
	PG Bank	Yellow	
	PG Cash	Yellow	
	PG Greenback	Green	
	PG Prairie	Yellow	
	Pizzazz	Yellow	
	Pro 171-7665	Green	
	Pro 173-7406	Yellow	
	Pro 181-7124	Green	
	PS16NZ0003	Yellow	
	PS17100008	Yellow	
	Ultra	Green	
	Vail	Green	
Lentil	Avondale	Medium Green	Medium
	CDC 6964-4	Small Green	
	CDC 7731-9Y	Large Green	
	CDC Greenstar	Large Green	
	CDC Impala CL	Small Red	Early
	CDC Maxim CL	Small Red	
	CDC Richlea	Medium Green	Medium
	CDC Viceroy	Small Green	Early/Medium
	LC14600088R	Medium Green	
	MS-LSR-1		
	MS-LXSR-2		

Table 4. Continued

Crop	Entry	Seed color/size	Maturity
Chickpea	CDC 3789-7	Kabuli	
	CDC Anna	Desi	Medium
	CDC Frontier	Kabuli	Late
	CDC Leader	Kabuli	Medium
	CDC Orion	Kabuli	Late
	CDC Palmer	Kabuli	Medium/Late
	MT Bridger	Kabuli	
	Myles	Desi	
	Nash	Kabuli	
	ND Crown	Kabuli	
	New Hope	Kabuli	
	Royal	Kabuli	
	Sawyer	Kabuli	
	Sierra	Kabuli	
Winter Pea	12WIL02-0	Yellow	
	Goldenwood	Yellow	
	Lynx	Green	
	MTP190574	Yellow	
	MTP190582	Green	
	MTP190629	Mottled	
	MTP190664	Yellow	
	MTP190752	Yellow	
	MTP190753	Yellow	
	MTP190767	Yellow	
	MTP190820	Yellow	
	MTP190821	Yellow	
	MTP190822	Yellow	
	MTP190887	Yellow	
	MTP190891	Yellow	
	MTP191029	Yellow	
	MTWP97097	Mottled	
	Payback	Yellow	
	Pro144-7211	Yellow	

Table 4. Continued

Crop	Entry	Seed color/size	Maturity
Winter Pea	PS05300225	Green	
	PS9830F011	Yellow	
	Specter	Yellow	
	Vail	Green	
	Windham	Yellow	
	Winterberry	Yellow	
Winter Lentil	LC08600113P	Small Red	
	LC9979016	Small Red	
	LC9979120	Small Red	
	LC146000088R	Medium Green	
	LC146000100L	Large Green	

RESULTS

Dry Pea Variety Evaluation in 2025

Forty-four dry pea entries (30 yellow and 14 green) were evaluated in 2025 at five locations. Six yellow pea and two green pea cultivars were selected as check varieties and tested at all locations. Six experimental lines originating from the NDSU breeding program were included at three locations based on seed availability. The remaining entries are cultivars and breeding lines from private entities and were tested at locations requested by the seed suppliers.

Results of the 2025 dry pea variety evaluations are presented in two groups based on cotyledon color: Tables 5-10 for yellow peas and Tables 11-16 for green peas. Reported data include yield, protein, thousand-kernel weight, test weight, plant height at harvest and days to flowering. Three-year yield and protein averages for 2023 through 2025 are presented for those entries with three years of data. Protein data are presented on a seed dry matter basis and data for all locations were collected on a single instrument employing the same protein prediction model allowing comparison of data across locations.

Pea yields at Havre were reduced relative to 2024 (3080 lb/a versus 3800 lb/a for yellow peas) but were well above the 2021-2023 period with rainfall patterns returning to near normal. Yields at Richland were slightly below the previous two years. More favorable spring planting conditions allowed timely planting at Richland in contrast to the late planting in the previous two seasons. Precipitation totals in Richland for May and June combined were two inches below average but an unusually wet July made up the deficit. Yields in Sidney were reduced even with precipitation plus irrigation totals exceeding previous years. Average yellow pea protein numbers were reduced by 1.5 percent (Richland) to five percent (Moccasin) at the three dryland locations but remained consistent at the irrigated Sidney location relative to 2024. The highest yielding location under irrigation in Sidney also produced pea protein numbers two to three percentage points higher than the other locations.

Table 5. Yellow Dry Pea Grain Yield (lb/a) with three-year averages in parentheses

Variety/Line	Havre		Moccasin	Richland		Sidney	
2822	2791						
21162						3807	
21163						3946	
25-84	3270						
AAC Beyond	3122		2424	1878		3872	
AAC Carver	2950	(3008)	2754	1949	(2057)	4258	(5188)
AAC Chrome	3151	(3051)					
AAC Harrison	2941						
AAC IronHorse	3145			1927			
AAC Julius	3101	(2960)					
AAC Profit	3115	(2927)	2875	1932	(2096)	4069	(5032)
CDC Inca	2874		2438	2047		4202	
CDC Meadow	2481		2240	1823		3708	
CP5222Y	2964	(3063)	2593	1839	(1889)	3857	
DS-Admiral	2969	(3064)	2297	1719	(1883)	3751	(4615)
McMurphy	3169						
MS GrowPro	3202		2583	1885		3921	
MS ProStar	3366		2796	2073		4144	
ND Dawn	3142	(3177)	2691	1662	(1898)	4235	(4795)
NDP170110Y	3164		2533	1861			
NDP170181Y	3000		2528	1933			
NDP170322Y	3060		2378	1928			
Orchestra	3306	(3300)	2556	2186	(2122)	3817	(4857)
PG Bank	2949		2254	1743		3967	
PG Cash	2920		2677	1931		4032	
PG Prairie	3217		2412	2063		3841	
Pizzazz	3281	(3392)	2487	1832	(2052)		
Pro 173-7406	2858		2172	1625			
PS16NZ0003	3280		2827	2027		4131	
PS17100008	3446	(3388)	2735	1663	(1918)	X	
Mean	**3080**		**2536**	**1888**		**3974**	
P-value	**0.13**		**0.04**	**0.007**		**0.06**	
LSD	**NS**		**424**	**274**		**NS**	
CV(%)	**11.1**		**11.8**	**10.3**		**6.6**	

*Note: Entry PS17100008 was planted in Sidney but lost to pigeons prior to harvest.

Table 6. Yellow Dry Pea Protein (% Dry Matter Basis) with three-year averages in parentheses

Variety/Line	Havre		Moccasin	Richland		Sidney	
2822	21.7						
21162						27.4	
21163						27.0	
25-84	24.7						
AAC Beyond	22.1		21.3	21.7		26.1	
AAC Carver	21.1	(23.1)	20.4	21.3	(22.7)	22.4	(22.1)
AAC Chrome	21.6	(24.4)					
AAC Harrison	22.8						
AAC IronHorse	23.5			23.7			
AAC Julius	22.3	(25.6)					
AAC Profit	22.4	(25.1)	22.0	22.8	(23.8)	25.0	(25)
CDC Inca	21.6		22.9	23.4		24.8	
CDC Meadow	21.6		22.7	21.8		22.8	
CP5222Y	21.9	(24.4)	22.1	23.6	(23.7)	25.7	
DS-Admiral	21.9	(23.9)	22.9	23.2	(23.9)	23.3	(23.6)
McMurphy	22.4						
MS GrowPro	22.8		23.8	24.7		27.2	
MS ProStar	23.0		22.2	23.7		25.1	
ND Dawn	21.3	(23.4)	22.0	22.3	(23.5)	24.0	(23.5)
NDP170110Y	23.8		24.5	24.5			
NDP170181Y	22.0		21.7	22.9			
NDP170322Y	23.2		22.1	24.0			
Orchestra	23.5	(25.6)	23.7	25.2	(25.9)	26.6	(26.7)
PG Bank	22.6		22.4	25.4		25.2	
PG Cash	21.7		22.6	23.6		26.6	
PG Prairie	22.1		22.2	23.5		24.4	
Pizzazz	21.9	(24)	22.0	24.2	(24.4)		
Pro 173-7406	21.9		22.4	22.8			
PS16NZ0003	23.1		21.8	22.7		26.7	
PS17100008	21.5	(23.4)	22.4	22.5	(23.4)		
Mean	**22.4**		**22.4**	**23.3**		**25.3**	
P-value	**<0.001**		**<0.001**	**<0.001**		**<0.001**	
LSD	**0.9**		**0.7**	**0.7**		**0.8**	
CV(%)	**2.8**		**2.2**	**2.2**		**2.2**	

Table 7. Yellow Dry Pea Thousand Kernel Weight (g)

Variety/Line	Havre	Moccasin	Richland	Sidney
2822	197			
21162				223
21163				202
25-84	220			
AAC Beyond	183	252	234	199
AAC Carver	209	252	245	225
AAC Chrome	206			
AAC Harrison	210			
AAC IronHorse	203		264	
AAC Julius	189			
AAC Profit	207	273	258	217
CDC Inca	202	246	251	221
CDC Meadow	197	210	208	195
CP5222Y	238	281	277	256
DS-Admiral	221	242	240	226
McMurphy	223			
MS GrowPro	252	300	306	294
MS ProStar	220	275	263	222
ND Dawn	225	248	236	240
NDP170110Y	208	247	234	
NDP170181Y	183	229	233	
NDP170322Y	192	242	251	
Orchestra	246	286	281	264
PG Bank	222	271	271	244
PG Cash	230	253	239	247
PG Prairie	218	277	275	239
Pizzazz	279	283	299	
Pro 173-7406	228	244	241	
PS16NZ0003	243	274	284	264
PS17100008	230	258	240	
Mean	**217**	**259**	**256**	**234**
P-value	**<0.001**	**<0.001**	**<0.001**	**<0.001**
LSD	**8.5**	**12.7**	**11.9**	**10.1**
CV(%)	**2.8**	**3.5**	**3.3**	**3.0**

Table 8. Yellow Dry Pea Test Weight (lb/bu)

Variety/Line	Havre	Moccasin	Richland	Sidney
2822	59.6			
21162				64.6
21163				64.0
25-84	60.4			
AAC Beyond	60.8	66.0	66.1	65.5
AAC Carver	59.7	65.7	65.2	64.8
AAC Chrome	60.6			
AAC Harrison	59.9			
AAC IronHorse	60.1		65.9	
AAC Julius	59.7			
AAC Profit	60.0	65.9	65.5	64.0
CDC Inca	59.9	65.9	66.3	65.3
CDC Meadow	59.5	65.9	66.1	65.5
CP5222Y	60.2	65.4	66.1	64.8
DS-Admiral	60.1	65.1	65.5	63.1
McMurphy	59.7			
MS GrowPro	59.7	65.5	65.8	64.6
MS ProStar	59.8	65.4	65.9	64.8
ND Dawn	60.0	64.7	64.4	64.9
NDP170110Y	60.1	65.2	65.6	
NDP170181Y	60.3	65.3	65.9	
NDP170322Y	59.2	65.3	66.1	
Orchestra	60.1	65.8	66.0	64.6
PG Bank	59.3	65.6	66.1	64.8
PG Cash	60.4	64.8	65.6	65.5
PG Prairie	60.3	66.1	66.8	65.1
Pizzazz	60.4	65.6	66.0	
Pro 173-7406	60.1	65.0	64.4	
PS16NZ0003	59.6	66.0	66.6	65.4
PS17100008	59.6	65.2	65.1	
Mean	**59.9**	**65.5**	**65.8**	**64.8**
P-value	**0.3**	**<0.001**	**<0.001**	**<0.001**
LSD	**NS**	**0.3**	**0.5**	**0.9**
CV(%)	**1.2**	**0.3**	**0.6**	**1.0**

Table 9. Yellow Dry Pea Plant Height at Maturity (cm)

Variety/Line	Havre	Moccasin	Richland	Sidney
2822	46			
21162				65
21163				61
25-84	43			
AAC Beyond	44	69	48	63
AAC Carver	49	70	54	63
AAC Chrome	40			
AAC Harrison	48			
AAC IronHorse	52		50	
AAC Julius	46			
AAC Profit	43	68	47	64
CDC Inca	49	72	46	70
CDC Meadow	47	71	51	59
CP5222Y	42	74	47	53
DS-Admiral	43	74	48	59
McMurphy	45			
MS GrowPro	53	78	47	57
MS ProStar	46	72	50	62
ND Dawn	40	64	46	65
NDP170110Y	50	74	51	
NDP170181Y	52	79	58	
NDP170322Y	53	77	53	
Orchestra	41	72	45	58
PG Bank	52	70	45	67
PG Cash	44	70	46	61
PG Prairie	50	77	52	59
Pizzazz	37	71	45	
Pro 173-7406	45	65	48	
PS16NZ0003	50	81	52	53
PS17100008	31	69	44	
Mean	**46**	**72**	**49**	**61**
P-value	**<0.001**	**0.3**	**0.4**	**0.01**
LSD	**6.0**	**NS**	**NS**	**8.1**
CV(%)	**9.3**	**11.3**	**14.4**	**9.3**

Table 10. Yellow Dry Pea Days to Flowering

Variety/Line	Havre	Moccasin	Sidney
2822	56		
21162			66
21163			67
25-84	56		
AAC Beyond	58	63	66
AAC Carver	57	59	64
AAC Chrome	56		
AAC Harrison	56		
AAC IronHorse	58		
AAC Julius	57		
AAC Profit	57	59	66
CDC Inca	60	61	66
CDC Meadow	56	58	63
CP5222Y	55	59	60
DS-Admiral	55	57	62
McMurphy	58		
MS GrowPro	57	60	63
MS ProStar	56	60	65
ND Dawn	56	59	62
NDP170110Y	58	61	
NDP170181Y	58	60	
NDP170322Y	57	61	
Orchestra	55	58	61
PG Bank	56	59	65
PG Cash	56	58	64
PG Prairie	56	60	63
Pizzazz	54	55	
Pro 173-7406	55	58	
PS16NZ0003	57	59	65
PS17100008	55	56	
Mean	**56**	**59**	**64**
P-value	**<0.001**	**<0.001**	**<0.001**
LSD	**0.9**	**1.8**	**0.6**
CV(%)	**1.2**	**2.1**	**0.7**

Table 11. Green Dry Pea Grain Yield (lb/a) with three-year averages in parentheses

Variety/Line	Havre		Moccasin	Richland		Sidney
Aragorn	2956	(3083)	2217	1355	(1626)	X
Banner	3110	(3078)	2288	1466		
Fairway	2886	(2906)	2183	1746		
Ginny 2	2749	(3035)	2237	1864	(1933)	
Hampton	2913	(3002)	2293	1736	(1955)	X
NDP150412G	2335		2470	1651		
NDP170101G	2873		2509	1899		
NDP170328G	2610		2042	1687		
Passion	2809	(2991)	2115	1725		
PG Greenback	3266		2763	2212		4183
Pro 171-7665	2692	(2834)	2200	1527		
Pro 181-7124	2978					
Ultra	2786		2524	1414		
Vail	3089		2075	1804		
Mean	**2861**		**2301**	**1699**		**4183**
P-value	**0.002**		**0.1**	**0.01**		
LSD	**374**		**NS**	**402**		
CV(%)	**9.2**		**13.9**	**16.5**		

*Note: Entries Aragorn and Hampton were planted in Sidney but lost to pigeons prior to harvest.

Table 12. Green Dry Pea Protein (% Dry Matter Basis) with three-year averages in parentheses

Variety/Line	Havre		Moccasin	Richland		Sidney
Aragorn	22.1	(24.4)	22.7	23.2	(24.3)	X
Banner	19.7	(22.8)	20.3	21.2		
Fairway	23.0	(26)	22.7	22.4		
Ginny 2	21.9	(24.2)	21.7	23.1	(24)	
Hampton	24.3	(25.9)	24.0	25.4	(25.8)	X
NDP150412G	23.1		23.9	24.7		
NDP170101G	22.5		22.9	24.3		
NDP170328G	22.2		23.9	24.1		
Passion	21.6	(23.5)	21.8	22.3		
PG Greenback	20.8		20.7	21.4		23.5
Pro 171-7665	21.1	(23.4)	21.0	22.0		
Pro 181-7124	22.4					
Ultra	19.7		19.7	21.2		
Vail	24.5		23.4	23.0		
Mean	**22.0**		**22.2**	**22.9**		**23.5**
P-value	**<0.001**		**<0.001**	**<0.001**		
LSD	**1.1**		**1.0**	**1.0**		
CV(%)	**3.6**		**3.2**	**2.9**		

Table 13. Green Dry Pea Thousand Kernel Weight (g)

Variety/Line	Havre	Moccasin	Richland	Sidney
Aragorn	218	210	202	X
Banner	208	201	210	
Fairway	184	204	186	
Ginny 2	209	246	231	
Hampton	218	241	233	X
NDP150412G	193	213	200	
NDP170101G	187	264	249	
NDP170328G	205	251	240	
Passion	216	224	215	
PG Greenback	199	267	277	215
Pro 171-7665	230	229	232	
Pro 181-7124	226			
Ultra	216	209	211	
Vail	136	194	194	
Mean	**203**	**227**	**221**	**215**
P-value	**<0.001**	**<0.001**	**<0.001**	
LSD	**6**	**12**	**10**	
CV(%)	**2.2**	**3.5**	**3.3**	

Table 14. Green Dry Pea Test Weight (lb/bu)

Variety/Line	Havre	Moccasin	Richland	Sidney
Aragorn	59.2	63.8	62.6	X
Banner	59.9	64.8	64.8	
Fairway	60.1	64.2	63.2	
Ginny 2	59.8	64.9	64.9	
Hampton	60.2	64.5	64.0	X
NDP150412G	59.5	65.5	65.3	
NDP170101G	59.7	65.7	65.9	
NDP170328G	60.1	64.4	65.3	
Passion	60.2	64.8	64.0	
PG Greenback	59.7	66.2	67.7	64.5
Pro 171-7665	59.2	65.2	64.4	
Pro 181-7124	60.0			
Ultra	60.1	64.9	64.8	
Vail	60.0	66.6	67.2	
Mean	**59.8**	**65.1**	**64.9**	**64.5**
P-value	**0.5**	**<0.001**	**<0.001**	
LSD	**1.0**	**0.3**	**0.7**	
CV(%)	**1.2**	**0.3**	**0.8**	

Table 15. Green Dry Pea Plant Height at Maturity (cm)

Variety/Line	Havre	Moccasin	Richland	Sidney
Aragorn	39	70	44	X
Banner	43	71	45	
Fairway	42	74	40	
Ginny 2	39	69	46	
Hampton	32	64	39	X
NDP150412G	41	65	42	
NDP170101G	56	74	53	
NDP170328G	43	70	49	
Passion	31	60	44	
PG Greenback	52	71	54	67.5
Pro 171-7665	36	69	41	
Pro 181-7124	38			
Ultra	42	74	47	
Vail	41	64	48	
Mean	**41**	**69**	**46**	**67.5**
P-value	**<0.001**	**0.9**	**0.02**	
LSD	**5.1**	**NS**	**8.6**	
CV(%)	**8.7**	**16.7**	**13.2**	

Table 16. Green Dry Pea Days to Flowering

Variety/Line	Havre	Moccasin	Sidney
Aragorn	54	57	X
Banner	53	56	
Fairway	57	60	
Ginny 2	56	60	
Hampton	57	61	X
NDP150412G	56	59	
NDP170101G	59	63	
NDP170328G	56	60	
Passion	56	57	
PG Greenback	58	63	66
Pro 171-7665	56	57	
Pro 181-7124	55		
Ultra	53	56	
Vail	62	63	
Mean	**56**	**59**	**66**
P-value	**<0.001**	**<0.001**	
LSD	**1.1**	**1.6**	
CV(%)	**1.4**	**1.9**	

Lentil Variety Evaluation in 2025

The 2025 lentil variety evaluation comprised 11 lentil entries evaluated at four locations. Included were six cultivars that represent the common classes of lentils with the remaining being advanced breeding lines from multiple sources. Results of the 2025 lentil variety evaluations are presented in Tables 17-21. Reported data include yield, thousand kernel weight, test weight, plant height at harvest and days to flowering. Three-year averages for 2023 through 2025 are presented for entries with three years of data.

Lentil trials were planted in Havre and Huntley but were lost to hail before harvest. Lentil yields in Moccasin were 2403 lb/a which is 500 lb/a better than the last time the trial was conducted in 2020. Richland lentil yields came in at 2108 lb/a which is the best trial average since 2020 and more than double the 2024 average. Richland lentil trials tend to mature about two weeks later than pea trials and therefore July rains in Richland benefitted the lentil trial significantly more than the pea trial.

Irrigated lentil yields in Sidney were adversely affected by cool and wet conditions in July causing plant stems to weaken and reducing the height of the crop canopy. This resulted in considerable pigeon damage across the trial with cultivars Avondale and CDC Impala being the most significantly damaged.

Table 17. Lentil Grain Yield (lb/a) with three-year averages in parentheses

Variety/Line	Moccasin	Richland		Sidney	
Avondale	2486	1862	(1355)	1544	(2862)
CDC 6964-4	2414	2049		2952	
CDC 7731-9Y	2335	2092		2956	
CDC Greenstar	2306	2115	(1302)	2584	(2833)
CDC Impala CL	2421	2222	(1244)	1569	(2454)
CDC Maxim CL	2192	2024		3069	
CDC Richlea	2497	2064	(1427)	2907	(3230)
CDC Viceroy	2226	2150	(1231)	2387	(2805)
LC14600088R		2175	(1441)		
MS-LSR-1	2621	2322		3539	
MS-LXSR-2	2529	2113		2993	
Mean	**2403**	**2108**		**2650**	
P-value	**0.03**	**0.6**		**<0.001**	
LSD	**249**	**NS**		**809**	
CV (%)	**7.2**	**12.0**		**21.1**	

*Note: Pigeon damage was significant throughout the Sidney trial

Table 18. Lentil Thousand Kernel Weight (g)

Variety/Line	Moccasin	Richland	Sidney
Avondale	55.5	57.3	53.3
CDC 6964-4	38.5	40.1	38.0
CDC 7731-9Y	79.5	80.0	79.8
CDC Greenstar	74.0	76.6	74.8
CDC Impala CL	32.5	34.7	32.8
CDC Maxim CL	41.3	44.1	44.0
CDC Richlea	58.0	58.9	57.5
CDC Viceroy	35.8	38.3	35.5
LC14600088R		66.0	
MS-LSR-1	52.8	54.6	54.3
MS-LXSR-2	41.5	43.8	43.0
Mean	**50.9**	**54.0**	**51.3**
P-value	**<0.001**	**<0.001**	**<0.001**
LSD	**1.7**	**1.9**	**1.8**
CV (%)	**2.3**	**2.5**	**2.5**

Table 19. Lentil Test Weight (lb/bu)

Variety/Line	Moccasin	Richland	Sidney
Avondale	64.2	62.5	60.8
CDC 6964-4	65.2	64.2	62.7
CDC 7731-9Y	63.1	62.0	59.1
CDC Greenstar	62.0	61.2	58.3
CDC Impala CL	66.2	66.0	64.1
CDC Maxim CL	65.5	64.6	62.8
CDC Richlea	63.4	62.5	59.6
CDC Viceroy	66.0	65.7	63.4
LC14600088R		62.4	
MS-LSR-1	64.7	63.9	62.4
MS-LXSR-2	65.2	65.2	62.4
Mean	**64.5**	**63.6**	**61.6**
P-value	**<0.001**	**<0.001**	**<0.001**
LSD	**0.4**	**0.4**	**0.8**
CV (%)	**0.4**	**0.4**	**0.9**

Table 20. Lentil Plant Height (cm)

Variety/Line	Moccasin	Richland	Sidney
Avondale	32	39	32
CDC 6964-4	32	38	36
CDC 7731-9Y	32	39	26
CDC Greenstar	31	41	28
CDC Impala CL	31	35	30
CDC Maxim CL	30	37	36
CDC Richlea	31	40	29
CDC Viceroy	28	40	34
LC14600088R		37	
MS-LSR-1	32	41	39
MS-LXSR-2	32	37	35
Mean	**31**	**38**	**32**
P-value	**0.9**	**0.08**	**<0.001**
LSD	**NS**	**NS**	**5.5**
CV (%)	**14.4**	**8.0**	**11.8**

Table 21. Lentil Days to Flowering

Variety/Line	Moccasin	Sidney
Avondale	62	65
CDC 6964-4	63	67
CDC 7731-9Y	62	66
CDC Greenstar	62	67
CDC Impala CL	63	68
CDC Maxim CL	63	64
CDC Richlea	62	66
CDC Viceroy	63	68
LC14600088R		
MS-LSR-1	63	65
MS-LXSR-2	64	68
Mean	**63**	**66**
P-value	**0.003**	**<0.001**
LSD	**1.0**	**0.6**
CV (%)	**1.1**	**0.6**

Chickpea Variety Evaluation in 2025

The 2025 statewide chickpea variety evaluation included 14 entries (12 kabuli type and two desi type). Data are presented for two dryland locations and one irrigated location in Tables 22-26. Trials were also planted at dryland locations in Havre and Huntley, but both were lost to hail. Average yield and seed size data for the three-year period, 2023 through 2025, are presented for those entries that were trialed in all three years.

Irrigated chickpea yields in Sidney averaged 4129 lb/a, a small improvement over the previous two seasons. Seed sizes for kabuli type cultivars also improved relative to the previous two seasons. Four applications of fungicide beginning at the onset of flowering provided adequate control of Ascochyta blight.

Chickpea yields in Richland were better than the previous two years and came in at an average of 1663 lb/a. In contrast to recent years, little to no wildlife damage on chickpeas was observed in Richland this year. However, Ascochyta blight was present throughout the trial, and no fungicide applications were made. Localized areas of significant disease were observed throughout the trial with cultivars Nash and Royal being the most severely affected.

A chickpea trial was conducted at Moccasin for the first time since 2020. Yields were good at 2174 lb/a and seed size was comparable to that of the irrigated trial in Sidney.

Table 22. Chickpea Grain Yield (lb/a) with three-year averages in parentheses

Variety/Line	Moccasin	Richland		Sidney	
CDC 3789-7		1810			
CDC Anna	2209	2462	(1669)	4366	(4057)
CDC Frontier	2651	2312	(1696)	4812	(4329)
CDC Leader	1910	1935	(1543)	4411	(4211)
CDC Orion	2086	1733	(1527)	4737	(4205)
CDC Palmer	2989	1828	(1591)	4365	
MT Bridger	3479	2165	(1567)	4938	(4437)
Myles	1906	2240	(1467)	3710	(3592)
Nash	1758	807	(793)	3505	(3241)
ND Crown	2128	1955	(1462)	4357	(4100)
New Hope	2102	1335	(973)	3648	
Royal	1571	563	(603)	3523	(3496)
Sawyer	1857	1070	(1212)	4016	(3740)
Sierra	1616	1063	(942)	3295	(3256)
Mean	**2174**	**1663**		**4129**	
P-value	**<0.001**	**<0.001**		**<0.001**	
LSD	**598**	**493**		**736**	
CV(%)	**19.2**	**20.8**		**12.5**	

*Note: Ascochyta damage was observed at Richland throughout the trial. Susceptible cultivars Nash and Royal were the most significantly affected.

Table 23. Chickpea Test Weight (lb/bu)

Variety/Line	Moccasin	Richland	Sidney
CDC 3789-7		62.5	
CDC Anna	62.1	63.4	62.9
CDC Frontier	62.3	63.6	61.8
CDC Leader	61.6	62.9	61.6
CDC Orion	59.8	61.8	61.4
CDC Palmer	61.0	61.9	61.8
MT Bridger	62.0	63.8	63.4
Myles	58.1	61.1	60.2
Nash	59.5	61.4	60.4
ND Crown	61.5	63.8	62.7
New Hope	61.4	63.4	62.3
Royal	60.1	59.5	61.6
Sawyer	60.6	62.6	61.6
Sierra	59.7	62.0	60.0
Mean	**60.7**	**62.4**	**61.7**
P-value	**<0.001**	**0.004**	**<0.001**
LSD	**0.8**	**2.1**	**0.6**
CV(%)	**0.9**	**2.3**	**0.7**

Table 24. Chickpea Seed Size (% greater than 8.73 mm) with three-year averages in parentheses

Variety/Line	Moccasin	Richland		Sidney	
CDC 3789-7		72.1			
CDC Anna	0.0	0.0	(0.3)	0.0	(0)
CDC Frontier	51.6	30.1	(27.7)	63.9	(23.9)
CDC Leader	57.7	39.7	(36.9)	70.4	(35.2)
CDC Orion	83.7	53.5	(53)	88.0	(62.7)
CDC Palmer	77.1	64.2	(53.1)	87.1	
MT Bridger	52.7	48.1	(47.6)	72.0	(32.1)
Myles	0.0	0.0	(0)	0.0	(0)
Nash	83.3	67.5	(75.8)	96.3	(84.4)
ND Crown	75.5	54.4	(57.5)	80.4	(55.5)
New Hope	54.1	36.0	(38.2)	67.9	
Royal	74.6	56.8	(66)	93.3	(78.7)
Sawyer	80.4	43.7	(41.1)	78.3	(36.1)
Sierra	92.3	71.2	(71.6)	94.1	(77.7)
Mean	**60.2**	**45.5**		**68.6**	
P-value	**<0.001**	**<0.001**		**<0.001**	
LSD	**14.2**	**10.7**		**7.3**	
CV(%)	**16.5**	**16.4**		**7.5**	

Table 25. Chickpea Plant Height (cm)

Variety/Line	Moccasin	Richland	Sidney
CDC 3789-7		42	
CDC Anna	40	42	48
CDC Frontier	40	40	45
CDC Leader	38	40	42
CDC Orion	39	37	46
CDC Palmer	37	34	44
MT Bridger	42	40	50
Myles	36	40	42
Nash	43	41	48
ND Crown	44	40	54
New Hope	45	48	56
Royal	44	44	49
Sawyer	41	40	44
Sierra	43	43	46
Mean	**41**	**41**	**47**
P-value	**<0.001**	**<0.001**	**<0.001**
LSD	**2.6**	**4.4**	**4.9**
CV(%)	**4.5**	**7.6**	**7.3**

Table 26. Chickpea Days to Flowering

Variety/Line	Moccasin	Sidney
CDC 3789-7		
CDC Anna	61	62
CDC Frontier	62	65
CDC Leader	61	66
CDC Orion	57	61
CDC Palmer	59	63
MT Bridger	61	64
Myles	57	62
Nash	61	66
ND Crown	59	64
New Hope	61	65
Royal	63	67
Sawyer	58	63
Sierra	60	65
Mean	**60**	**64**
P-value	**<0.001**	**<0.001**
LSD	**1.4**	**1.3**
CV(%)	**1.7**	**1.4**

Winter Pea Variety Evaluation in 2025

The 2025 statewide winter pea trials included 25 entries encompassing yellow, green and mottled pea types. Seven entries are named cultivars and the remainder are numbered advanced breeding lines. Results of the 2025 winter pea variety evaluations are presented in Tables 27-29. Trials were planted in Havre, Moccasin and Sidney on 10/3, 10/16 and 9/20/2024. All three trials experienced exceptionally dry fall weather. Fall plant emergence in the Havre trial was good and winter survival rates ranged from 37 percent to 100 percent. One replicate sustained herbicide damage and was removed from the analysis. Yields at Havre were excellent ranging from 3042 lb/a to 4614 lb/a with an average of 3815 lb/a compared to averages of 2861 and 3080 lb/a for spring type green and yellow peas respectively. Winter pea harvest preceded that of spring pea by one day in Havre.

Dry fall conditions at Moccasin delayed planting with no fall plant emergence observed resulting in a dormant seeding condition and subsequent spring plant emergence. Winter pea yields at Moccasin ranged from 2547 lb/a to 3521 lb/a with an average of 3129 lb/a. Spring type yellow and green peas averaged 2536 lb/a and 2301 lb/a respectively. Interestingly, green pea cultivar Vail yielded 3205 lb/a as a dormant seeded fall crop and 2075 lb/a as a spring seeded crop at Moccasin.

The Sidney trial was planted at a dryland location seven miles northwest of Sidney into marginal soil moisture. No precipitation was recorded in the 30 days following planting and fall emergence was approximately 70 percent of expected. No entries survived the winter in Sidney.

Table 27. Winter Pea Grain Yield (lb/a) and Protein (% Dry Matter Basis)

Variety/Line	Yield		Protein	
	Havre	Moccasin	Havre	Moccasin
12WIL02-0	3236	2587	21.3	23.4
Goldenwood	4001	3112	20.6	23.5
Lynx	4205	3188	21.5	23.8
MTP190574	3476	2596	20.9	22.6
MTP190582	4489	3008	22.9	23.6
MTP190629	3897	2935	21.2	23.9
MTP190664	3769	3247	20.6	22.7
MTP190752	3695	3101	21.5	22.3
MTP190753	4012	3233	21.1	22.5
MTP190767	3252	3472	21.4	22.1
MTP190820	4286	3371	21.4	23.8
MTP190821	3918	3274	21.6	24.4
MTP190822	4618	3373	21.2	23.8
MTP190887	3713	3301	22.6	22.9
MTP190891	3513	3567	21.3	23.5
MTP191029	3955	3521	21.9	23.5
MTWP97097	3829	2945	23.4	24.3
Payback	3800	3388	20.2	21.9
Pro144-7211	3379	2923	20.3	21.3
PS05300225	3210	3070	22.4	24.5
PS9830F011	3971	2547	23.2	24.4
Specter	3889	2908	21.8	22.3
Vail	3612	3205	22.2	22.9
Windham	4614	3082	20.2	22.8
Winterberry	3042	3267	21.1	20.8
Mean	**3815**	**3129**	**21.5**	**23.1**
P-value	**<0.001**	**<0.001**	**0.01**	**<0.001**
LSD	**637**	**449**	**1.7**	**0.8**
CV(%)	**10.2**	**10.2**	**4.8**	**2.6**

Table 28. Winter Pea Test Weight (lb/bu) and Thousand Kernel Weight (g)

Variety/Line	Test Weight		TKW	
	Havre	Moccasin	Havre	Moccasin
12WIL02-0	60.6	65.6	178	179
Goldenwood	60.1	64.9	185	196
Lynx	58.5	64.6	159	170
MTP190574	58.6	62.8	204	212
MTP190582	57.9	64.3	157	178
MTP190629	61.4	65.6	155	145
MTP190664	60.8	64.7	167	161
MTP190752	59.8	64.3	175	175
MTP190753	59.6	64.3	176	173
MTP190767	58.4	64.0	183	188
MTP190820	60.1	65.1	174	170
MTP190821	59.8	64.8	180	181
MTP190822	59.8	65.6	153	167
MTP190887	60.1	65.0	162	191
MTP190891	60.2	65.2	188	193
MTP191029	59.3	64.3	158	164
MTWP97097	60.9	64.7	142	160
Payback	59.5	64.5	185	193
Pro144-7211	58.1	65.4	197	202
PS05300225	60.9	64.8	173	199
PS9830F011	60.1	64.6	142	158
Specter	59.0	64.3	127	148
Vail	60.3	65.6	173	174
Windham	60.4	64.3	166	157
Winterberry	59.7	63.7	222	226
Mean	**59.8**	**64.7**	**171.3**	**178.4**
P-value	**<0.001**	**<0.001**	**<0.001**	**<0.001**
LSD	**1.4**	**0.6**	**8.0**	**7.6**
CV(%)	**1.4**	**0.7**	**2.9**	**3.0**

Table 29. Winter Pea Plant Height (cm) and Winter Survival (%)

Variety/Line	Plant Height		Survival
	Havre	Moccasin	Havre
12WIL02-0	50	94	64
Goldenwood	34	65	85
Lynx	33	64	92
MTP190574	39	70	106
MTP190582	39	63	70
MTP190629	68	103	102
MTP190664	59	99	83
MTP190752	35	62	60
MTP190753	39	68	52
MTP190767	33	69	96
MTP190820	37	65	105
MTP190821	39	60	89
MTP190822	35	63	88
MTP190887	43	76	66
MTP190891	39	74	64
MTP191029	36	71	80
MTWP97097	61	101	94
Payback	31	64	81
Pro144-7211	41	67	108
PS05300225	38	86	90
PS9830F011	61	99	84
Specter	65	105	90
Vail	36	71	37
Windham	39	59	92
Winterberry	40	69	97
Mean	**43**	**75**	**83**
P-value	**<0.001**	**<0.001**	**0.047**
LSD	**6.6**	**6.9**	**38**
CV(%)	**9.4**	**6.5**	**28.2**

Winter Lentil Variety Evaluation in 2025

The 2025 statewide winter lentil trials included five entries (three small reds, one medium green and one large green). All entries are breeding lines from the USDA-ARS. Results are presented in Tables 30-32. Trials were planted in Havre, Moccasin and Sidney on the same days as the winter pea trials at those locations. As observed with the winter pea trials, no survival was observed at the Sidney location and plant emergence was delayed until spring at the Moccasin location. Winter lentil yields at Moccasin averaged 1706 lb/a and were lower than yields for spring planted lentils (2403 lb/a). However, no variety was planted in both trials to facilitate a comparison of fall dormant seeding versus spring seeding.

At the Havre location, two entries had winter survival rates greater than 80 percent with the remaining three entries experiencing little to no winter survival. The two surviving entries yielded 1730 lb/a and 1445 lb/a. The spring plant lentil trial at Havre was lost to hail so no comparison of yield between the trials can be made. The winter lentil trial at Havre was harvested on 7/30/2025 which is earlier than any of the spring planted trials at Harve going back to 2020. The hailstorm that terminated this year's spring lentil trial at Havre occurred on 8/20/2025 which indicates a minimum of three weeks difference in harvest times between fall and spring lentil crops at Havre in 2025.

Table 30. Winter Lentil Grain Yield (lb/a) and Plant Height (cm)

Variety/Line	Yield		Plant Height	
	Havre	Moccasin	Havre	Moccasin
LC08600113P	234	1657	11	35
LC9979016	1730	1654	20	31
LC9979120	1445	1567	20	29
LC146000088R	X	1822	X	35
LC146000100L	X	1828	X	37
Mean	**1136**	**1706**	**16.7**	**33.4**
P-value	**<0.001**	**0.8**	**<0.001**	**0.002**
LSD	**275**	**NS**	**3.6**	**3.7**
CV(%)	**15.1**	**19.4**	**13.5**	**7.3**

Table 31. Winter Lentil Test Weight (lb/bu) and Thousand Kernel Weight (g)

Variety/Line	Test Weight		TKW	
	Havre	Moccasin	Havre	Moccasin
LC08600113P	53.3	64.6	32.5	53.5
LC9979016	65.7	65.1	30.9	33.8
LC9979120	66.4	65.6	29.4	30.5
LC146000088R	X	62.8	X	59.3
LC146000100L	X	59.4	X	88.0
Mean	**61.8**	**63.5**	**31**	**53**
P-value	**<0.001**	**<0.001**	**0.001**	**<0.001**
LSD	**1.9**	**0.5**	**1.3**	**3.1**
CV(%)	**2.0**	**0.6**	**2.6**	**3.9**

Table 32. Winter Lentil Survival (%)

Variety/Line	Survival
	Havre
LC08600113P	2.5
LC9979016	82.9
LC9979120	96.6
LC146000088R	X
LC146000100L	X
Mean	**60.7**
P-value	**<0.001**
LSD	**26.9**
CV(%)	**27.7**

FUTURE PLANS

The EARC will continue to lead the statewide variety evaluations in the coming years provided there is a need from pulse growers, seed industries, breeders, and there is funding to support the effort. Winter pea trials were planted at four locations (Havre, Moccasin, Sidney and Wibaux) in the fall of 2025. Additionally, trials are expected to resume at the Western Triangle Agricultural Research Center in 2026.

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