

North Dakota Flax Variety Trial Results for 2016 and Selection Guide

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This Selection Guide summarizes flax variety performance at the various North Dakota State University Research Extension Centers. Give special attention to 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, also consider other agronomic characteristics, such as maturity, disease tolerance, lodging score and oil percentages, if available.

The agronomic data presented 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 95 or 90 percent 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 abbreviation NS is used to indicate "no significant difference" for that trait among any of the varieties.

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.

Gold ND is a flax variety released by NDSU in 2014. It is a yellow-seeded flax that is adapted to the north-central flax growing region of the United States. Gold ND has very high yield potential, good oil content and oil drying quality. It is resistant to flax rust and has good tolerance to flax wilt. The variety has blue flowers and medium seed size.

Oil content and harvested seed yield were adjusted to 9 percent moisture. In the table headings (Table 6-10) the lead scientists are acknowledged. 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. Research specialists and technicians helped with the field work and data compilation. The assistance given by many secretaries in typing 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.

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Table 1. 2016 North Dakota Flax Variety Descriptions.

Variety ¹	Origin ²	Year Released	Relative Maturity	Seed Color	Plant Height	Wilt ³
Bison	ND	1926	Med.	Brown	Med.	MR
Carter	ND	2004	Med.	Yellow	Med.	MS/MR
Cathay	ND	1998	Med.	Brown	Med.	MR
CDC Arras	Can.	1999	Med.	Brown	Med.	MR
CDC Bethune	Can.	1999	Med.late	Brown	Med.tall	MR
CDC Glas	Can.	2012	Med.	Brown	Med.tall	MR
CDC Mons	Can.	2003	Med.late	Brown	Med.	MR
CDC Neela	Can.	2013	Med.late	Brown	Med.	MR
CDC Plava	Can.	2015	Med.	Brown	Med.	MR
CDC Sanctuary	Can.	2012	Med.	Brown	Med.tall	MR
CDC Sorrel	Can.	2007	Med.late	Brown	Med.tall	MR
Gold ND	ND	2014	Med.	Yellow	Med.tall	MR/R
Hanley	Can.	2002	Med.early	Brown	Med.	R
Lightning	Can.	2002	Late	Brown	Med.tall	R
Linott	Can.	1966	Med.early	Brown	Med.	MS/MR
McGregor	Can.	1980	Late	Brown	Med.tall	MR
Neche	ND	1988	Med.	Brown	Med.	MR/R
Nekoma	ND	2002	Late	Brown	Med.	MR
Omega	ND	1989	Med.	Yellow	Med.	MS/MR
Pembina	ND	1998	Med.	Brown	Med.	MR
Prairie Blue	Can.	2003	Med.late	Brown	Med.tall	MR
Prairie Grande	Can.	2008	Med.early	Brown	Med.	MR
Prairie Sapphire	Can.	2012	Med.	Brown	Med.	MR
Prairie Thunder	Can.	2006	Med.	Brown	Short	MR
Rahab 94	SD	1994	Med.	Brown	Med.	MR
Selby	SD	2000	Late	Brown	Tall	MR
Shape	Can.	2010	Med.	Brown	Med.	R
TAM F-201	TX	1974	Med.late	Yellow	Med.tall	NA
Webster	SD	1998	Late	Brown	Tall	MR
York	ND	2002	Late	Brown	Med.	MR/R

¹ All varieties have resistance to prevalent races of rust; all have good oil yield and oil quality.

² Can. = Canada; ND = North Dakota State University; SD = South Dakota State University; TX = Texas.

³ R = resistant; MR = moderately resistant; MS = moderately susceptible, NA not available.

Table 2. Plant Height of Flax Varieties at Five Locations in North Dakota, 2016.

Variety	Carrington	Langdon	Williston	Williston-Irrigated	Hettinger	Average N.D. ²
	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)
Carter ¹	23	27	21	23	16	22
CDC Bethune	24	28	20	--	17	22
CDC Glas	23	26	21	23	17	22
CDC Neela	21	26	19	--	16	21
CDC Plava	21	25	20	--	--	--
CDC Sanctuary	24	25	21	--	17	22
CDC Sorrel	24	26	22	22	18	22
Gold ND ¹	24	26	22	24	17	22
Nече	22	--	--	--	--	--
Nekoma	25	27	21	--	16	22
Omega ¹	23	24	19	--	16	20
Pembina	22	27	21	--	17	22
Prairie Blue	22	25	20	22	17	21
Prairie Grande	21	25	20	--	17	21
Prairie Sapphire	22	28	20	--	17	22
Prairie Thunder	21	28	21	--	16	21
Rahab 94	23	26	20	--	16	21
Shape	23	28	21	--	17	22
Webster	23	28	20	24	17	22
York	22	26	21	23	17	22
Mean	23	26	21	23	17	22
CV %	7.6	6.3	5.8	3.6	4.8	4.0
LSD 0.05	NS	2.4	1.7	1.4	1.1	1.2
LSD 0.10	2	2.0	1.4	1.2	0.9	1.0

¹Yellow seeded.²Average of the four dryland trials.**Table 3. Days to Flower of Flax Varieties at Six Locations in North Dakota, 2016.**

Variety	Carrington	Langdon	Williston	Williston-Irrigated	Hettinger	Minot	Average N.D. ³
	(DAP) ²	(DAP) ²	(DAP) ²	(DAP) ²	(DAP) ²	(DAP) ²	(DAP) ²
Carter ¹	47	50	52	55	63	53	53
CDC Bethune	48	50	52	--	62	52	53
CDC Glas	45	51	53	54	63	55	53
CDC Neela	46	50	52	--	61	55	53
CDC Plava	45	49	53	--	--	50	--
CDC Sanctuary	44	50	53	--	63	54	53
CDC Sorrel	46	51	54	57	63	55	54
Gold ND ¹	48	52	53	57	63	55	54
Nече	44	--	--	--	--	--	--
Nekoma	47	49	52	--	63	52	53
Omega ¹	47	51	54	--	63	52	53
Pembina	47	50	52	--	63	54	53
Prairie Blue	43	50	53	55	64	54	53
Prairie Grande	46	49	52	--	63	50	52
Prairie Sapphire	44	51	53	--	63	50	52
Prairie Thunder	45	51	53	--	64	53	53
Rahab 94	46	49	52	--	62	53	52
Shape	45	50	53	--	63	49	52
Webster	50	50	52	54	62	55	54
York	46	49	52	53	63	52	52
Mean	46	50	53	55	63	53	53
CV %	1.6	1.7	0.8	1.4	1.1	1.7	2.3
LSD 0.05	1.1	1.2	0.6	2.4	1.0	2.0	1.6
LSD 0.10	0.9	1.0	0.5	2.0	0.8	1.0	1.3

¹Yellow seeded.²DAP = Days after planting.³Average of the five dryland trials.

Table 4. Yield of Flax Varieties at Six Locations in North Dakota, 2014-2016.

Variety	<u>Carrington</u>		<u>Langdon</u>		<u>Minot</u>		<u>Williston</u>		<u>Williston-Irr.</u>		<u>Hettinger</u>		<u>Average N.D.</u> ²	
	2016	3 Yr.	2016	3 Yr.	2016	3 Yr.	2016	3 Yr.	2016	2 Yr.	2016	3 Yr.	2016	3 Yr.
	----(bu/a)----		----(bu/a)----		---(bu/a)---		---(bu/a)---		---(bu/a)---		----(bu/a)---		----(bu/a)---	
Carter ¹	21.2	27.5	39.6	38.5	30.7	25.9	22.2	23.6	46.0	39.3	18.2	27.7	26.4	28.6
CDC Bethune	16.4	26.5	38.6	38.4	24.3	21.8	22.1	22.7	--	--	19.1	27.3	24.1	27.4
CDC Glas	17.7	27.8	40.5	41.5	26.9	24.9	22.4	23.9	56.7	52.7	21.1	30.6	25.7	29.7
CDC Neela	19.7	28.8	37.2	38.4	25.6	--	24.5	--	--	--	21.6	31.8	25.7	--
CDC Plava	17.8	--	30.9	--	19.2	--	25.0	--	--	--	--	--	--	--
CDC Sanctuary	18.5	26.8	33.4	37.6	26.7	26.0	26.9	24.5	--	--	22.5	31.1	25.6	29.2
CDC Sorrel	18.4	28.8	33.7	37.3	26.6	26.1	25.0	24.6	49.0	--	21.4	29.0	25.0	29.2
Gold ND ¹	20.8	29.3	38.2	37.3	27.6	26.2	23.6	24.3	46.3	--	19.4	28.4	25.9	29.1
Neche	17.5	26.0	--	--	--	--	--	--	--	--	--	--	--	--
Nekoma	20.9	28.6	38.2	38.0	28.8	25.7	22.6	23.3	--	--	19.3	28.3	26.0	28.8
Omega ¹	13.1	21.4	32.9	34.9	23.8	22.9	18.6	22.3	--	--	19.4	25.9	21.6	25.5
Pembina	17.0	25.0	37.5	37.5	26.3	24.7	22.6	22.3	--	--	17.6	26.5	24.2	27.2
Prairie Blue	13.8	22.1	39.9	39.1	20.1	20.7	22.7	23.9	50.2	45.0	19.2	29.1	23.1	27.0
Prairie Grande	17.6	26.0	42.3	38.1	21.7	21.4	22.4	22.3	--	--	19.7	28.6	24.7	27.3
Prairie Sapphire	17.7	25.9	34.9	37.2	15.7	19.4	23.3	22.5	--	--	19.9	28.0	22.3	26.6
Prairie Thunder	19.0	25.6	38.9	39.3	26.1	25.3	22.8	22.8	--	--	18.9	26.7	25.1	27.9
Rahab 94	18.5	27.1	40.0	39.1	25.3	25.9	23.4	23.5	--	--	17.8	28.4	25.0	28.8
Shape	18.9	26.1	43.6	40.5	22.4	22.3	23.5	22.4	--	--	18.7	27.8	25.4	27.8
Webster	21.8	27.9	39.9	37.9	28.0	25.1	23.7	22.5	47.6	44.5	20.1	27.5	26.7	28.2
York	14.5	26.6	40.9	38.1	23.9	22.2	20.9	22.1	46.6	--	19.4	28.3	23.9	27.5
Mean	18.0	26.5	37.9	38.3	24.7	23.9	23.1	23.1	48.9	45.4	19.6	28.4	24.8	28.0
CV %	10	-	7.3	5.8	12.4	13.3	11.1	5.9	10.0	--	9.6	5.3	9.5	5.0
LSD 0.05	2.5	--	4.0	3.7	5.0	5.3	3.6	2.3	8.6	--	2.7	2.5	3.0	1.8
LSD 0.10	2.1	--	3.3	3.1	4.2	4.4	3.0	1.9	7.1	--	2.2	2.1	2.5	1.5

¹Yellow seeded.²Average 2016 and 3-year average is from the five dryland trials.

Table 5. Test Weight and Oil Content of Flax Varieties at Six Locations in North Dakota, 2016.

Variety	<u>Carrington</u>		<u>Langdon</u>		<u>Williston</u>		<u>Williston-Irr.</u>		<u>Hettinger</u>		<u>Minot</u>		<u>Average N.D.²</u>	
	Test Wt.	Oil	Test Wt.	Test Wt.	Oil	Test Wt.	Oil	Test Wt.	Oil	Test Wt.	Oil	Test Wt.	Oil	
	(lb/bu)	(%)	(lb/bu)	(lb/bu)	(%)	(lb/bu)	(%)	(lb/bu)	(%)	(lb/bu)	(%)	(lb/bu)	(%)	
Carter ¹	52.4	42.5	52.1	53.9	37.0	54.8	33.5	54.9	45.0	53.8	42.9	53.4	41.9	
CDC Bethune	50.4	42.1	52.2	54.0	36.4	--	--	56.9	44.8	54.0	43.7	53.5	41.7	
CDC Glas	50.2	43.0	50.8	52.8	37.9	53.7	34.5	56.5	46.7	52.3	43.8	52.5	42.9	
CDC Neela	51.5	43.2	51.4	53.8	36.1	--	--	56.0	45.9	53.1	43.8	53.2	42.2	
CDC Plava	51.9	44.8	51.4	53.5	37.2	--	--	--	--	52.9	44.3	--	--	
CDC Sanctuary	51.6	43.3	51.0	53.6	37.6	--	--	56.6	45.8	53.2	43.9	53.2	42.6	
CDC Sorrel	49.9	42.9	51.2	53.6	37.1	54.2	34.1	56.7	45.9	53.3	44.3	52.9	42.6	
Gold ND ¹	52.9	44.0	52.1	54.3	37.3	55.0	33.6	56.9	46.0	54.3	45.0	54.1	43.1	
Neche	51.7	42.9	--	--	--	--	--	--	--	--	--	--	--	
Nekoma	51.3	42.7	52.1	53.8	37.1	--	--	56.2	45.5	53.1	44.2	53.3	42.4	
Omega ¹	50.5	42.8	52.2	54.3	37.1	--	--	57.5	44.8	53.2	42.9	53.5	41.9	
Pembina	50.6	43.2	51.2	53.8	37.6	--	--	55.8	46.2	53.1	44.5	52.9	42.9	
Prairie Blue	50.4	43.9	51.4	53.6	37.9	54.2	34.1	56.7	46.8	52.3	43.6	52.9	43.0	
Prairie Grande	49.8	43.4	51.6	53.7	36.7	--	--	55.8	45.8	51.6	44.2	52.5	42.6	
Prairie Sapphire	49.9	42.9	50.8	53.1	38.2	--	--	56.3	48.0	50.8	44.1	52.2	43.3	
Prairie Thunder	51.9	42.4	52.2	53.9	35.6	--	--	56.5	45.7	53.7	43.0	53.6	41.7	
Rahab 94	51.4	43.8	51.5	53.3	37.2	--	--	56.6	46.8	52.3	43.7	53.0	42.9	
Shape	49.8	41.5	51.4	53.5	37.6	--	--	56.7	47.0	53.1	44.2	52.9	42.6	
Webster	51.3	42.9	52.6	54.0	37.6	54.7	34.0	56.0	46.3	53.8	44.2	53.5	42.7	
York	50.1	42.4	51.7	54.0	36.0	54.6	33.2	57.1	45.6	53.5	43.4	53.3	41.8	
Mean	51.0	43.0	51.6	53.7	37.1	54.5	33.9	56.4	46.0	53.0	43.9	53.1	42.5	
CV %	2.6	1.8	0.8	0.3	2.8	0.6	2.0	1.1	1.7	1.0	1.3	1.1	1.3	
LSD 0.05	1.8	1.1	0.6	0.2	1.5	0.6	1.2	0.9	1.1	0.9	0.9	0.7	0.8	
LSD 0.10	1.5	0.9	0.5	0.2	1.2	0.5	1.0	0.7	0.9	0.7	0.8	0.6	0.6	

¹Yellow seeded.

²Test weight average of the five dryland trials and oil average of four dryland trials.

Table 6. 2016 Flax - Carrington - Authors, M. Ostlie, B. Schatz and J. Nielsen.

Variety	Days to	Days to	Plant	Plant	Oil	Test	Seed Yield ¹		
	Flower	PM	Height	Lodge ²	Content	Weight	2016	2-yr. Avg.	3-yr. Avg.
	(DAP) ³	(DAP) ³	(inch)	(0-9)	(%)	(lb/bu)	------(bu/a)-----		
Carter ⁴	47	83	23	0	42.5	52.4	21.2	25.6	27.5
CDC Bethune	48	80	24	7	42.1	50.4	16.4	23.2	26.5
CDC Glas	45	76	23	2	43.0	50.2	17.7	26.3	27.8
CDC Neela	46	78	21	0	43.2	51.5	19.7	26.1	28.8
CDC Plava	45	76	21	0	44.8	51.9	17.8	--	--
CDC Sanctuary	44	78	24	0	43.3	51.6	18.5	25.7	26.8
CDC Sorrel	46	78	24	4	42.9	49.9	18.4	25.8	28.8
Gold ND ⁴	48	87	24	0	44.0	52.9	20.8	28.7	29.3
Neché	44	79	22	0	42.9	51.7	17.5	22.6	26.0
Nekoma	47	80	25	0	42.7	51.3	20.9	27.2	28.6
Omega ⁴	47	81	23	3	42.8	50.5	13.1	18.3	21.4
Pembina	47	85	22	0	43.2	50.6	17.0	21.4	25.0
Prairie Blue	43	72	22	3	43.9	50.4	13.8	20.0	22.1
Prairie Grande	46	78	21	5	43.4	49.8	17.6	24.1	26.0
Prairie Sapphire	44	74	22	1	42.9	49.9	17.7	25.0	25.9
Prairie Thunder	45	78	21	0	42.4	51.9	19.0	23.4	25.6
Rahab 94	46	79	23	0	43.8	51.4	18.5	24.2	27.1
Shape	45	77	23	0	41.5	49.8	18.9	23.9	26.1
Webster	50	86	23	0	42.9	51.3	21.8	24.7	27.9
York	46	80	22	2	42.4	50.1	14.5	22.4	26.6
Mean	46	79	23	1	43.0	51.0	18.0	24.1	26.5
CV %	1.6	2.3	7.6	174	1.8	2.6	10.0	8.7	8.6
LSD 0.05	1.1	2.6	NS	3.4	1.1	1.8	2.5	4.4	3.8
LSD 0.10	0.9	2.2	2.0	2.9	0.9	1.5	2.1	3.6	3.1

Planted: May 10. Harvested: Aug. 24. Previous crop: field pea.

¹Hail Damage: In 2016 the trial experienced a moderate degree of hail damage on July 9. The loss in yield due to either seed shatter or head breakage was assessed to be generally uniform across the trial. However, differential reproductive plant development occurred after the storm which was related to plant maturity. Use data with caution and consider the hail damage when utilizing the trial information.

²Lodging: 0 = none, 9 = lying flat on the ground.

³DAP = Days after planting.

⁴Yellow seeded.

Table 7. 2016 Flax - Langdon - Authors, B. Hanson, T. Hakanson and L. Henry.

Variety	Days to Flower (DAP) ²	Plant Height (inch)	Plant Lodge ¹ (0-9)	Test Weight (lb/bu)	Seed Yield				
					2014	2015	2016	2-yr. Avg.	3-yr. Avg.
Carter ³	50	27	0.5	52.1	39.5	36.4	39.6	38.0	38.5
CDC Bethune	50	28	0.5	52.2	39.2	37.5	38.6	38.1	38.4
CDC Glas	51	26	0.2	50.8	42.6	41.3	40.5	40.9	41.5
CDC Neela	50	26	1.6	51.4	38.6	39.4	37.2	38.3	38.4
CDC Plava	49	25	4.0	51.4	--	--	30.9	--	--
CDC Sancturary	50	25	1.7	51.0	38.2	41.2	33.4	37.3	37.6
CDC Sorrel	51	26	2.0	51.2	38.2	40.1	33.7	36.9	37.3
Gold ND ³	52	26	0.7	52.1	37.4	36.3	38.2	37.3	37.3
Nekoma	49	27	0.6	52.1	38.3	37.4	38.2	37.8	38.0
Omega ³	51	24	1.0	52.2	36.1	35.8	32.9	34.3	34.9
Pembina	50	27	0.3	51.2	38.2	36.9	37.5	37.2	37.5
Prairie Blue	50	25	0.4	51.4	39.8	37.5	39.9	38.7	39.1
Prairie Grande	49	25	0.8	51.6	34.8	37.2	42.3	39.8	38.1
Prairie Sapphire	51	28	2.1	50.8	38.3	38.3	34.9	36.6	37.2
Prairie Thunder	51	28	0.4	52.2	41.6	37.3	38.9	38.1	39.3
Rahab 94	49	26	0.4	51.5	39.6	37.8	40.0	38.9	39.1
Shape	50	28	0.0	51.4	37.9	40.1	43.6	41.9	40.5
Webster	50	28	0.8	52.6	38.9	35.0	39.9	37.5	37.9
York	49	26	0.3	51.7	38.0	35.4	40.9	38.2	38.1
Mean	50	26	1.0	51.6	38.6	37.8	37.9	38.1	38.3
CV %	1.7	6.3	124	0.8	7.9	5.7	7.3	7.1	5.8
LSD 0.05	1.2	2.4	1.5	0.6	NS	3.0	4.0	5.7	3.7
LSD 0.10	1.0	2.0	1.2	0.5	NS	2.5	3.3	4.7	3.1

Planted: May 9. Harvested: Sept. 2.

¹Lodging: 0 = none, 9 = lying flat on the ground.²DAP = Days after planting.³Yellow seeded.

Table 8. 2016 Flax - Minot - Author, E. Eriksmoen.

Variety	Days to 10% Bloom (DAP) ¹	Oil Content (%)	Test Weight (lb/bu)	Seed Yield (bu/a)				
				2013	2014	2016	2-yr. Avg.	3-yr. Avg.
Bison	50	44.5	53.7	--	25.3	21.6	23.5	--
Carter ²	53	42.9	53.8	21.4	25.5	30.7	28.1	25.9
CDC Bethume	52	43.7	54.0	17.3	23.8	24.3	24.0	21.8
CDC Glas	55	43.8	52.3	21.6	26.2	26.9	26.6	24.9
CDC Neela	55	43.8	53.1	--	21.8	25.6	23.7	--
CDC Plava	50	44.3	52.9	--	--	19.2	--	--
CDC Sanctuary	54	43.9	53.2	26.6	24.8	26.7	25.8	26.0
CDC Sorrel	55	44.3	53.3	26.8	24.9	26.6	25.8	26.1
Gold ND ²	55	45.0	54.3	25.0	26.0	27.6	26.8	26.2
Nekoma	52	44.2	53.1	26.2	22.1	28.8	25.5	25.7
Omega ²	52	42.9	53.2	22.7	22.3	23.8	23.0	22.9
Pembina	54	44.5	53.1	32.6	15.1	26.3	20.7	24.7
Praire Blue	54	43.6	52.3	23.7	18.4	20.1	19.3	20.7
Prairie Grande	50	44.2	51.6	21.0	21.5	21.7	21.6	21.4
Prairie Sapphire	50	44.1	50.8	22.4	20.1	15.7	17.9	19.4
Prairie Thunder	53	43.0	53.7	26.1	23.6	26.1	24.8	25.3
Rahab 94	53	43.7	52.3	27.1	25.2	25.3	25.3	25.9
Shape	49	44.2	53.1	20.4	24.2	22.4	23.3	22.3
Webster	55	44.2	53.8	23.3	23.9	28.0	26.0	25.1
York	52	43.4	53.5	19.0	23.7	23.9	23.8	22.2
Mean	53	43.9	53.1	23.7	23.1	24.6	24.0	23.9
CV %	1.7	1.3	1.0	18.0	12.5	12.4	10.5	13.3
LSD 0.05	2	0.9	0.9	7.1	4.1	5.0	5.3	5.3
LSD 0.10	1	0.8	0.7	5.9	3.4	4.2	4.3	4.4

Planted: May 17. Harvested: Aug. 29. Previous crop: spring wheat.

¹DAP = Days after planting.²Yellow seeded.

Table 9. 2016 Flax - Dryland - Williston - Authors, J. Bergman, G. Pradhan and E. Link.

Cultivar	Days to Flower (DAP) ¹	Days to PM (DAP) ¹	Plant Height (inch)	Test Weight (lb/bu)	Oil Content (%)	Seed Yield		
						2016	2-yr. Avg.	3-yr. Avg.
						------(bu/a)-----		
Bison	52	91	21	53.8	37.2	20.4	23.3	21.4
Carter ²	52	92	21	53.9	37.0	22.2	26.2	23.6
CDC Bethume	52	91	20	54.0	36.4	22.1	24.9	22.7
CDC Glas	53	89	21	52.8	37.9	22.4	26.4	23.9
CDC Neela	52	89	19	53.8	36.1	24.5	-	-
CDC Plava	53	89	20	53.5	37.2	25.0	-	-
CDC Sanctuary	53	91	21	53.6	37.6	26.9	27.5	24.5
CDC Sorrel	54	90	22	53.6	37.1	25.0	27.2	24.6
Gold ND ²	53	90	22	54.3	37.3	23.6	26.7	24.3
Nekoma	52	90	21	53.8	37.1	22.6	24.9	23.3
Omega ²	54	89	19	54.3	37.1	18.6	23.0	22.3
Pembina	52	90	21	53.8	37.6	22.6	25.1	22.3
Prairie Blue	53	90	20	53.6	37.9	22.7	25.6	23.9
Prairie Grande	52	90	20	53.7	36.7	22.4	24.7	22.3
Prairie Sapphire	53	90	20	53.1	38.2	23.3	25.1	22.5
Prairie Thunder	53	91	21	53.9	35.6	22.8	25.1	22.8
Rahab 94	52	90	20	53.3	37.2	23.4	25.5	23.5
Shape	53	90	21	53.5	37.6	23.5	24.8	22.4
Webster	52	89	20	54.0	37.6	23.7	25.6	22.5
York	52	90	21	54.0	36.0	20.9	23.8	22.1
Mean	53	90	21	53.7	37.1	22.9	25.3	23.0
CV %	0.8	1.2	5.8	0.3	2.8	11.1	5.3	5.9
LSD 0.05	0.6	1.5	1.7	0.2	1.5	3.6	2.8	2.3
LSD 0.10	0.5	1.3	1.4	0.2	1.2	3.0	2.3	1.9

Planted: April 23. Harvested: Aug. 16. Previous crop: durum.

¹DAP = Days after planting.²Yellow seeded.**Table 10. 2016 Flax - Irrigated - Williston - Authors, J. Bergman, T. Tjelde and J. Jacobs.**

Cultivar	Days to Flower (DAP) ¹	Days to Maturity (DAP) ¹	Plant Height (inch)	Plant Lodge (0-9)	Test Weight (lb/bu)	Oil Content (%)	Seed Yield	
							2016	3-yr. Avg.
							------(bu/a)-----	
Bison	55	100	23	0.7	54.9	34.8	51.4	--
Carter ²	55	101	23	0.0	54.8	33.5	46.0	39.3
CDC Glas	54	97	23	0.3	53.7	34.5	56.7	52.7
CDC Sorrel	57	98	22	0.0	54.2	34.1	49.0	--
Gold ND ²	57	100	24	0.0	55.0	33.6	46.3	--
Prairie Blue	55	98	22	0.0	54.2	34.1	50.2	45.0
Webster	54	98	24	0.0	54.7	34.0	47.6	44.5
York	53	100	23	0.0	54.6	33.2	46.6	--
Mean	55	99	23	0.1	54.5	34.0	49.2	45.4
CV %	1.4	1.4	3.6	223	0.6	2.0	10.0	--
LSD 0.05	2.4	2.4	1.4	NS	0.6	1.2	8.6	--
LSD 0.10	2.0	2.0	1.2	NS	0.5	1.0	7.1	--

Planted: April 21. Harvested: Aug. 15. Previous crop: potato.

¹DAP = Days after planting.²Yellow seeded.

Table 11. 2016 Flax - Hettinger - Authors, J. Rickertsen and R. Olson.

Variety	Days to Flower (DAP) ¹	Plant Height (inch)	Oil Content (%)	Test Weight (lb/bu)	Seed Yield	
					2016	3-yr. Avg.
					------(bu/a)-----	
Bison	62	17	45	56.6	18.7	--
Carter ²	63	16	45.0	54.9	18.2	27.7
CDC Bethume	62	17	44.8	56.9	19.1	27.3
CDC Glas	63	17	46.7	56.5	21.1	30.6
CDC Neela	61	16	45.9	56.0	21.6	31.8
CDC Sanctuary	63	17	45.8	56.6	22.5	31.1
CDC Sorrel	63	18	45.9	56.7	21.4	29.0
Gold ND ²	63	17	46.0	56.9	19.4	28.4
Nekoma	63	16	45.5	56.2	19.3	28.3
Omega ²	63	16	44.8	57.5	19.4	25.9
Pembina	63	17	46.2	55.8	17.6	26.5
Praire Blue	64	17	46.8	56.7	19.2	29.1
Prairie Grande	63	17	45.8	55.8	19.7	28.6
Prairie Sapphire	63	17	48.0	56.3	19.9	28.0
Prairie Thunder	64	16	45.7	56.5	18.9	26.7
Rahab 94	62	16	46.8	56.6	17.8	28.4
Shape	63	17	47.0	56.7	18.7	27.8
TAM201F	64	16	45.2	55.4	17.9	--
Webster	62	17	46.3	56.0	20.1	27.5
York	63	17	45.6	57.1	19.4	28.3
Mean	63	17	45.9	56.4	19.5	28.4
CV %	1.1	4.8	1.7	1.1	9.6	5.3
LSD 0.05	1	1.1	1.1	0.9	2.7	2.5
LSD 0.10	0.8	0.9	0.9	0.7	2.2	2.1

Planted: April 13. Harvested: Aug. 16. Previous crop: durum.

¹DAP = Days after planting.

²Yellow seeded.