

# Linseed Coop Evaluation in Interlake

**Project duration:** 2018-2020

**Collaborators:** Dr. Helen Booker (flax breeder), CDC Saskatoon

**Funding:** Manitoba Flax Growers Association, BASF

**Objectives:** To compare newly registered cultivars (SVPG entries) and experimental lines (FP entries) from University of Saskatchewan, Crop Development Centre Flax Breeding Program with check flax varieties.

## Results

Significant differences were found among flax entries tested at Arborg site. The check entries CDC Bethune, AAC Bright and CDC Glas were relatively low yielding entries in the test. Two 3<sup>rd</sup>-year entries (FP 2567 & FP2573) and two 1<sup>st</sup>-year entries (FP 2591 & FP2593) yielded significantly higher than check flax entries.

Table 1. Performance of different flax entries at PESAI Arborg site during 2019 season.

Variety	Yield (00 Kg/ha)	% of CDC Glas	Overall rank (Based on Zone 3 sites)
<b>Checks</b>			
CDC Bethune	19.8a	95	7
AAC Bright	20.0a	96	13
CDC Glas	20.8ab	100	17
<b>SVPG Entries</b>			
CDC Buryu	23.0bcde	110	16
CDC Dorado	20.9abc	100	19
ND Hammond	20.0a	96	20
AAC Marvelous	23.0bcde	110	14
AAC Prairie Sunshine	20.9abc	101	18
CDC Rowland	22.8bcde	110	10
Topaz	21.1abc	101	15
<b>3rd Year Entries</b>			
FP2566	21.8bc	105	11
FP2567	24.2def	116	12
FP2573	25.6f	123	2
<b>1st Year Entries</b>			
FP2589	22.1bcd	106	8
FP2590	22.1bcd	106	6
FP2591	25.0ef	120	1
FP2592	22.6bcd	109	9
FP2593	23.2cdef	111	3
FP2594	22.7bcde	109	5
FP2595	22.8bcde	110	4
C.V. %	7.2		
LSD	2.3		

Means contain the same letter are not statistically different at  $P < 0.05$ .

The flax entries FP2573, FP2591 & FP2593 were also the top performing flax entries in the Zone 3, which comprised of Roblin (MB), Arborg (MB), Melfort (SK), Codette (SK) and Vegreville (AB) sites.

### **Project Findings**

The year 2019 was the second year of testing for these flax entries and the entries differed in their yield performance at Arborg site. Generally, top performing entries at this site were similar to other Zone 3 sites. Overall results will be reported after completing 2020 testing at all the sites.

### **Background / Additional Resources / References**

The coop trial was conducted at Melita, Roblin, Arborg and Carberry in Manitoba. There were other sites across Saskatchewan, Alberta and Quebec in various soil zones but they will not be discussed in this report. For more information, flax breeder Dr Helen Booker can be contacted at 1-306-966-5878.

### **Materials and Methods**

*Experimental Design* – Randomised block design with three replications.

*Treatments* – Twenty flax entries (See Table 1).

*Plot size* – 7.1m<sup>2</sup>

*Data collected* – plant height, lodging, days to maturity, grain yield, stem dry down, determinate growth habit

Only yield results are presented in the current report and other results will be reported in the overall report after completion of 2020 season testing. Subsamples were sent back to the Crop Development Centre in Saskatoon for further fatty acid and protein analysis.

#### ***Agronomic info***

*Stubble, soil type* – Fallow, heavy clay

*Fertilizer applied* – Soil nutrient levels (lbs/acre): N – 104, P<sub>2</sub>O<sub>5</sub> – 30, K<sub>2</sub>O – 680  
N – 50lbs/acre and P – 15lbs/acre were applied at seeding.

*Pesticides applied* – Curtail @0.8L/acre + Centurion @75ml/acre on June 19  
Sprayed with Reglone on Sep 6.

*Seeding/harvesting date* – May 15 / Sept 16