National Industrial Hemp Fibre and Grain Variety Evaluation

Project duration May 2018 – August 2018
Objectives To evaluate hemp grain and fibre varieties for the Canadian Hemp Trade Alliance
Collaborators Canadian Hemp Trade Alliance

Results Grain yield results are available through the SEED Manitoba guide (2018). Graphical yield results for each of the four Manitoba research sites are displayed below according to grain and fibre yields.

Figure 1: 2018 Hemp Fibre Yield Results at Roblin, 2018

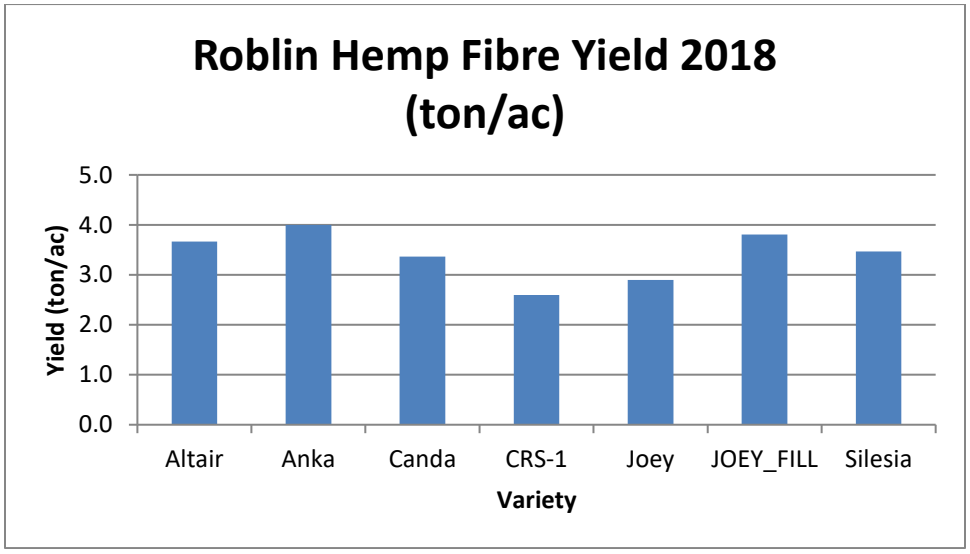


Figure 2: 2018 Hemp Grain Yield Results at Roblin, 2018

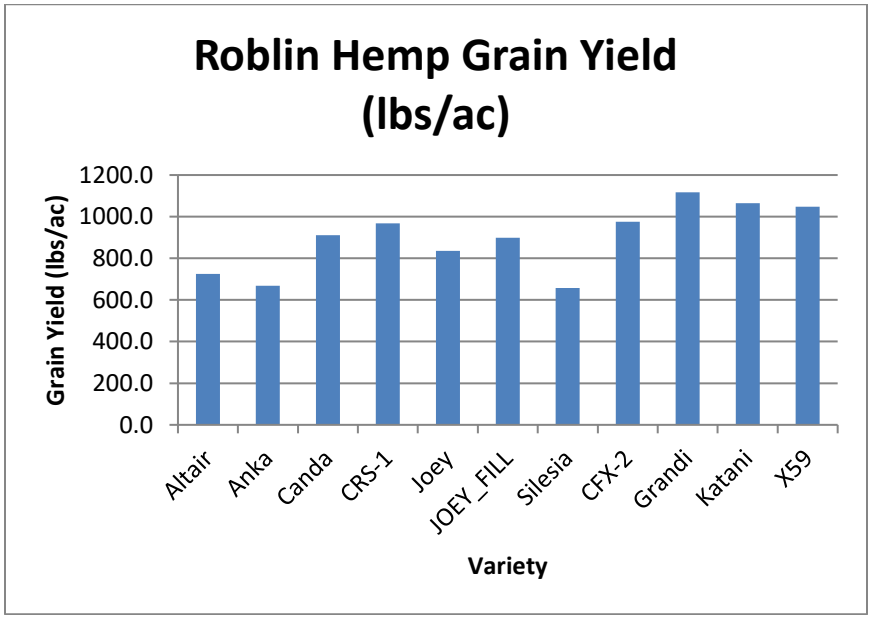


Figure 3: Hemp Fibre Yield Results at Carberry, 2018

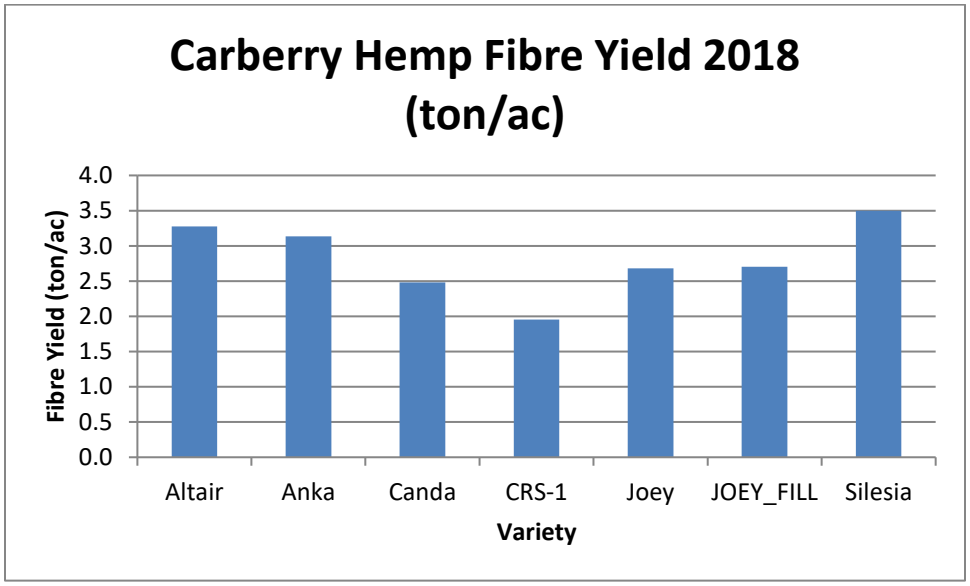


Figure 4: 2018 Hemp Grain Yield Results at Roblin, 2018

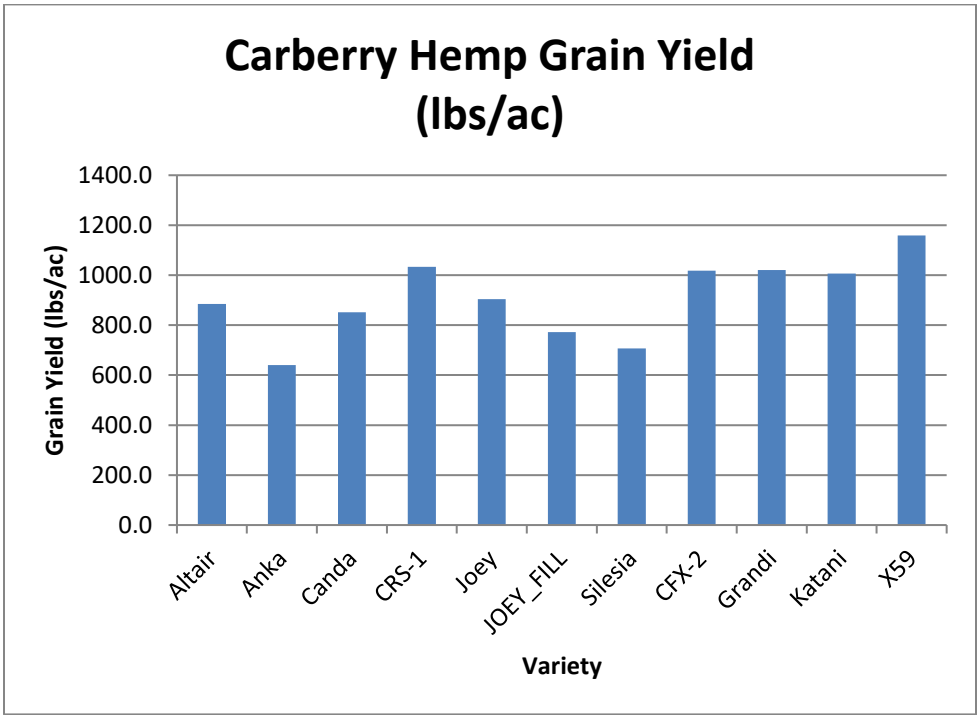


Figure 5: Hemp Fibre Yield Results at Arborg, 2018

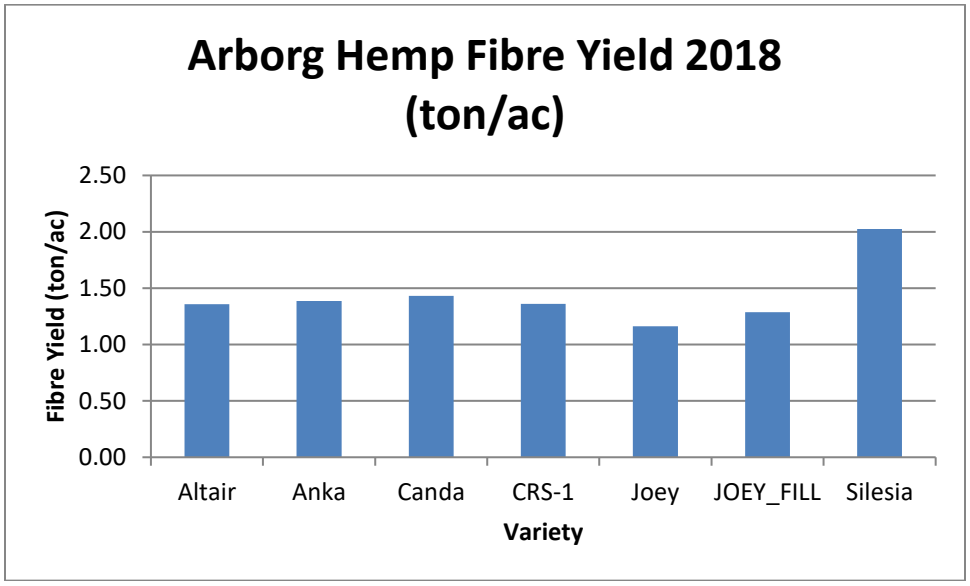


Figure 6: 2018 Hemp Grain Yield Results at Arborg, 2018

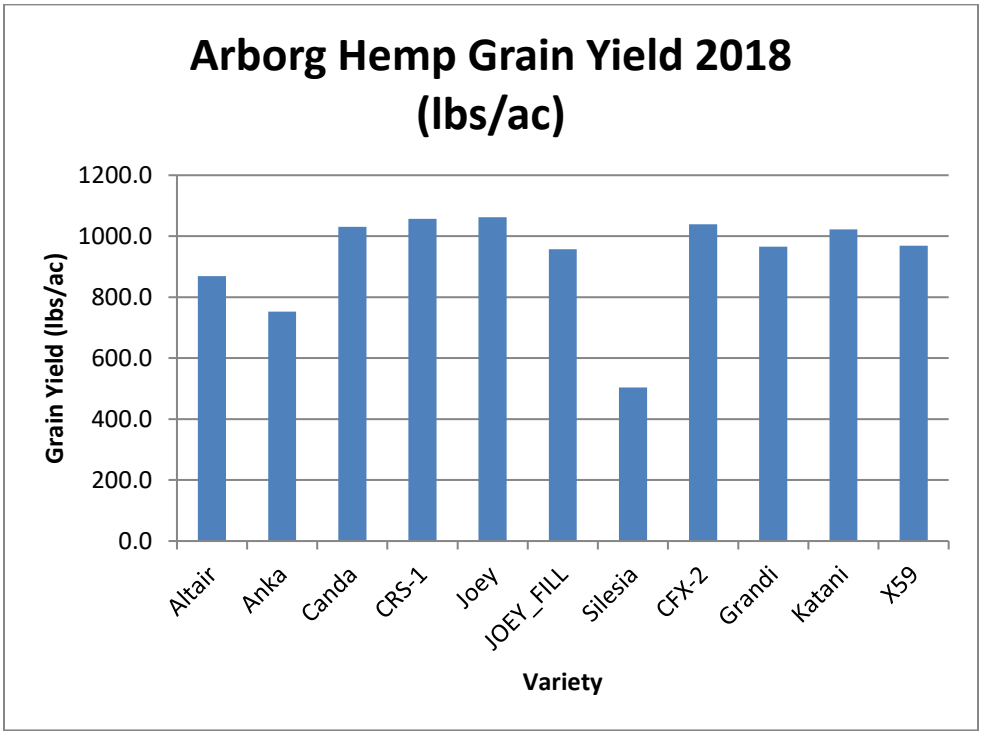


Figure 7: Hemp Fibre Yield Results at Melita, 2018

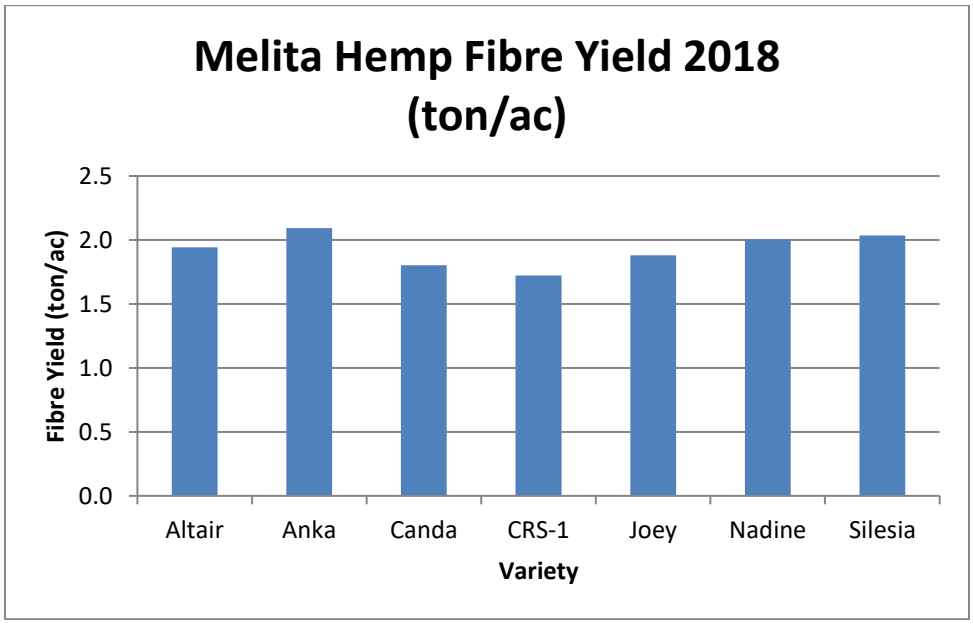
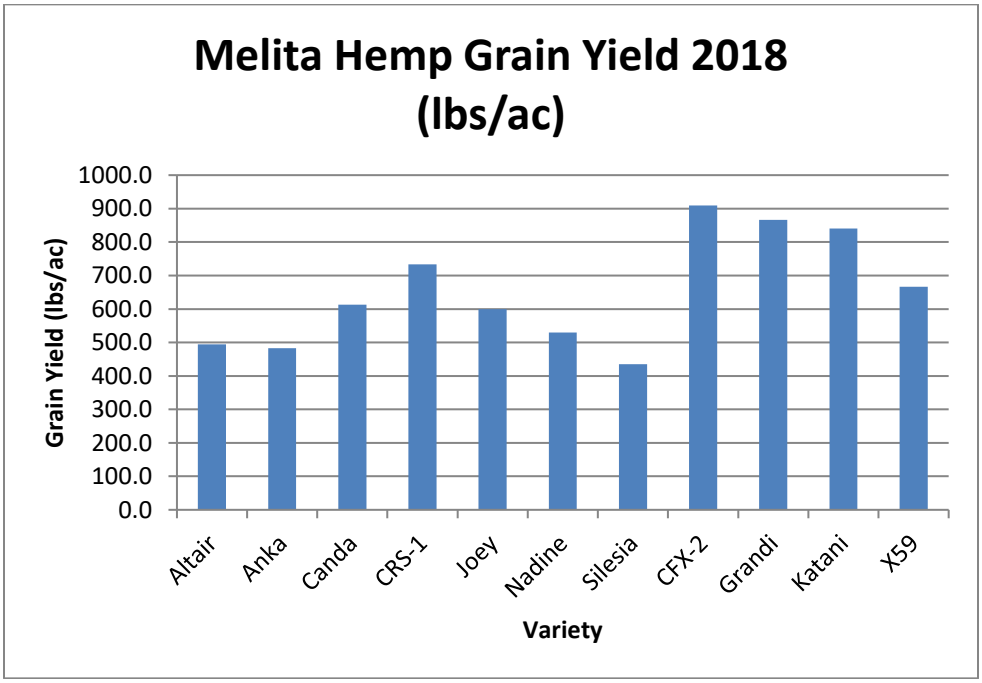


Figure 8: 2018 Hemp Grain Yield Results at Melita, 2018



Background

The Canadian Hemp Trade Alliance (CHTA) is a not-for-profit organization which represents over 260 growers across all 10 provinces as well as numerous processors, distributors, developers and researchers involved in Canada's rapidly growing industrial hemp industry.

There were a number of new developments in Canadian legislation in 2018 which very directly affects Canadian hemp growers. The CHTA website outlines these new developments, specifically the changes in Cannabis legislation as well as Health Canada's revision of Section 56 of the Controlled Drugs and Substances Act (CDSA). These changes now allow hemp farmers to immediately collect and store industrial hemp flower, bud and leaf material, a vital piece which was previously prohibited.

Jason Green, Head of Agriculture with Canopy Hemp and Director of the CHTA explains that this new permission allows hemp growers to learn more about the harvesting, drying and storing of their harvest materials, a key component in then bringing their product to market.

This trial looked at separate grain and fibre varieties of hemp.

Roblin Materials & Methods

Experimental Design	Random Complete Block Design
Entries	5 grain entries and 7 fibre entries x 4 replications
Seeding	May 28
Harvest	Aug 22
Varieties	See Table 1

Table 1: 2018 Hemp Varieties

Fibre	Grain
Anka	CFX-2
Silesia	X59
Canda	Katani
Joey-fill	Grandi
Altair	CRS-1
CRS-1	
Joey	

Data collected	**Date collected**
Emergence	Jun 4-6
Plant Counts	Jun8 and Jul 16
Heading	Jul 6-11
Flowering	Jul 18-19
Male/Female ratio	Aug 15
Maturity	Aug 8-22
Height	Aug 2
Disease	Aug 5
Lodging	Aug 22
Yield	Sept 3

Moisture	Sept 3

Roblin Agronomic info

Previous year's crop	Oat barley silage
Soil Type	Erickson Loam Clay
Landscape	Rolling with trees to the east
Seedbed preparation	No-till due to moisture concerns; direct-seeded into stubble

Table 2: Spring 2018 Soil Test

	Available	Needed
N	54 lb/ac	76 lb/ac
P	13 ppm	10 lb/ac
K	228 ppm	0 lb/ac
S	118 lb/ac	0 lb/ac

Table 3: Added N and P Fertilizer

Blend	Blend (actual lbs/ac)	Actual lbs N	Actual lbs P
46-0-0	160.62	76	0
11-52-0-0	19.23	2.12	10
Total	-	78.12	10

N side-banded; P Banded with seed

Table 4: Herbicide Application

Crop stage	Date	Product	Rate
Pre-emerge	May 19	Heat	28.4g/ac
		Round-up	0.67L/ac
In-crop	Jun 20	Brotex 240	0.5 L/ac
		Centurion	0.15 L/ac