

Agriculture and Agri-Food Canada Conventional Soy Protein Variety Evaluation

Project duration: May 2020 – October 2020

Objectives: Examine 20 varieties of conventional soybean to determine protein differences between eastern and western Canada sites

Collaborators: Elroy Cober – Research Scientist, soybean breeding and genetics, AAFC
Simon Lackey – Soybean breeding AAFC

Background

This project is part of a long-term 5-year multi-site study across Canada, led by Elroy Cober.

Results

The soybean entries from Roblin were submitted to Elroy Cober's team for protein analysis. The protein results are shown in Figure 1. Average soybean yield by variety is shown in Table 1.

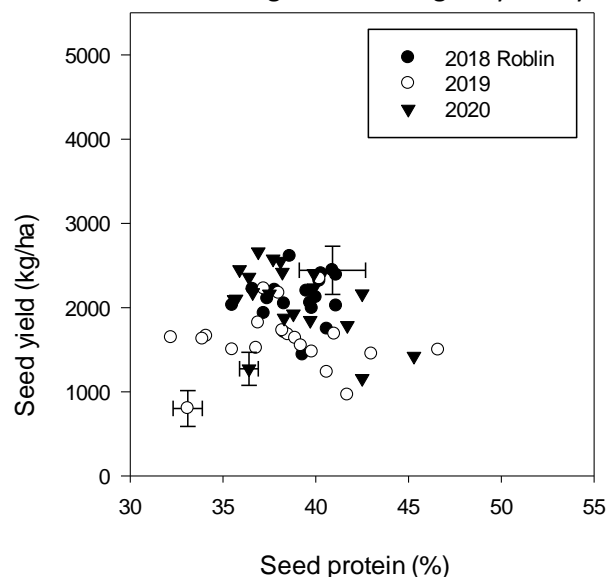


Figure 1: Roblin soybean protein results (2018-2020) (provided by E. Cober)

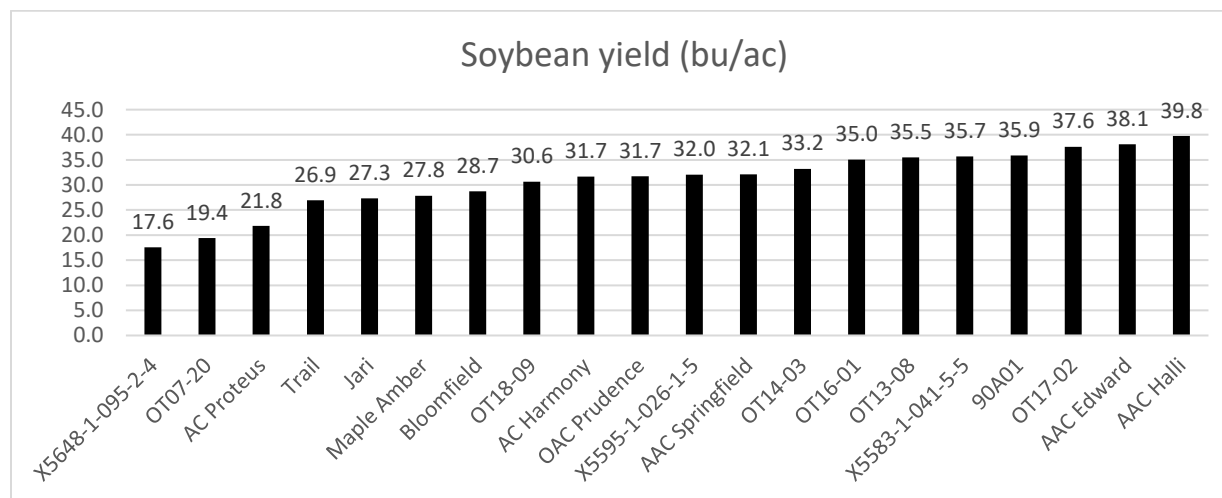


Table 1: Average soybean yield by entry (bu/ac)

Materials and methods

Experimental Design: Rectangular lattice
Entries: 20 entries; 4 replications
Seeding: May 21
Harvest: Oct 6

Table 2: Varieties included in trial

90A01	OT14-03	AAC Edward	X5595-1-026-1-5
Trail	X5583-1-041-5-5	OT16-01	Bloomfield
OAC Prudence	OT13-08	Maple Amber	AAC Springfield
OT17-02	AAC Halli	AC Harmony	AC Proteus
Jari	OT07-20	OT18-09	X5648-1-095-2-4

Data collected Date collected
Population Score: Jun 16
Flowering: Jul 22-24
Heights: Aug 14
Maturity: Sep 7
Lodging: Oct 6
Yield: Oct 25
Moisture: Oct 25
Seed Weight g/100: Oct 26

Agronomic info

Previous year's crop: Barley Silage
Soil Type: Erickson Loam Clay
Landscape: Rolling with trees to the east
Seedbed preparation: Heavy harrowed twice

Table 3: Spring 2020 Soil Test

	Available	Added	Type
N	61 lb/ac	-	-
P	47 ppm	10 lb/ac	
K	393 ppm	-	-

Inoculant added with seed; P banded with seed

Table 4: Pesticide Application

Crop stage	Date	Product	Rate
Pre-emerge	May 19	RoundUp	0.64 L/ac
		Heat	28.0 g/ac
In-crop	Jul 22	UAN 28%	0.8 L/ac
		Viper	0.4 L/ac