

Agriculture Agri-Food Canada Corn Nursery

Project duration: May 2020 – October 2020

Objectives: To develop and release early maturing cold tolerant corn inbreds with emphasis on the 1800-2000 CHU market.

Collaborators: Lana Reid PhD – AAFC Research Scientist Ottawa Research and Development Centre
Manitoba Corn Growers

Background and project findings

The objective will be achieved using conventional corn breeding methodology enhanced by double haploid inbred production and specialized screening techniques for cold tolerance and disease resistance. The trial is being conducted at sites across five Canadian provinces. The anticipated impact of developing earlier maturing, cold tolerant corn will expand the acreage of corn production in Canada. This project is part of a long-term, multi-site study led by Lana Reid. Lana Reid and team will make research findings available at the conclusion of the project.

Materials and methods

Experimental Design: 500 row observation nursery

Entries: 500

Seeding: May 20

Harvest: Oct 14

Data collected Date collected

Tasseling Date: Jul 23 – Aug 18

Silking Date: Jul 21 – Aug 22

Ear Formation: Aug 4 – Aug 26

Agronomic info

Previous year's crop: Barley Silage

Soil Type: Erickson Loam Clay

Landscape: Rolling with trees to the east

Seedbed preparation: Direct-seed

Table 1: Fertility Information

	Available	Added	Type
N	71 lb/ac	121 lb/ac	46-0-0
P	50 ppm	15 lb/ac	11-52-0-0
K	556 ppm	none	N/A

Table 2: Pesticide Application

Crop stage	Date	Product	Rate
Pre-emerge	May 26	Heat	28 g/ac
		Round-up	645 ml/ac
In crop	Jul 27	Sortan IS	30 g/ac