

Supporting western and northern expansion of soybean in Canada

Dr. Leonid Savitch

Agriculture and Agri-Food Canada

| SPG Contributions | Project Status | Duration/Timeline of Project (Year to Year) | Co-funders | Total Project Cost |
|-------------------|----------------|---|---------------------------------------|--------------------|
| \$134,772.00 | Active | April 2018 – March 2023 | Canadian Field Crop Research Alliance | \$449,240.00 |

Project Description

To characterize mechanisms responsible for enhanced photosynthetic cold stress tolerance, efficient carbon utilization/export and sustainable yield production in soybeans; to design efficient screening tests for photosynthetic soybean cold stress tolerance and low temperature insensitive flowering and maturity phenotypes; to identify soybean germplasm with enhanced cold stress tolerance and limited low temperature induced delay in reproductive development and maturity suitable for Western and Northern expansion; to identify and characterize mechanisms responsible for low temperature insensitive flowering and maturity phenotypes of soybeans.

Outcome

Research Objective

OBJECTIVE 1

To characterize mechanisms responsible for enhanced photosynthetic cold stress tolerance, efficient carbon utilization/export and sustainable yield production in soybeans.

OBJECTIVE 4

To identify and characterize mechanisms responsible for low temperature insensitive flowering and maturity phenotypes of soybeans.

OBJECTIVE 2

To design efficient screening tests for photosynthetic soybean cold stress tolerance and low temperature insensitive flowering and maturity phenotypes.

OBJECTIVE 3

To identify soybean germplasm with enhanced cold stress tolerance and limited low temperature induced delay in reproductive development and maturity suitable for Western and Northern expansion.