GENOMICS ON THE HILL

LA GÉNOMIQUE SUR LA COLLINE

GLOBAL CHALLENGES ✦ GENOMIC SOLUTIONS DÉFIS MONDIAUX ✦ SOLUTIONS GÉNOMIQUES

Growing soybean in Canada through improved adaptation

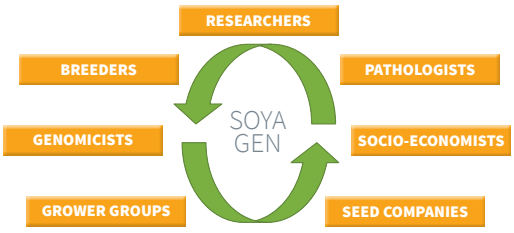
Accroître la culture du soya au Canada via une meilleure adaptation

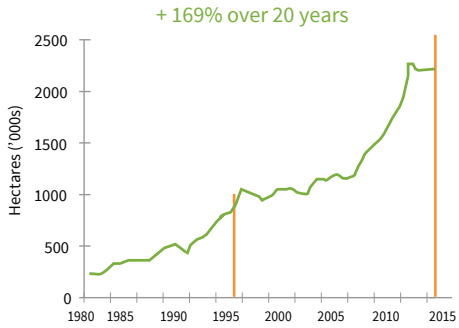
CHALLENGE:

Soybean is a highly profitable crop that is environmentally sustainable. With climate change the crop has the potential for significant expansion within Canada. There is a pressing need for the development of high-yielding soybean varieties suited to Canadian conditions.

QUICK FACTS:

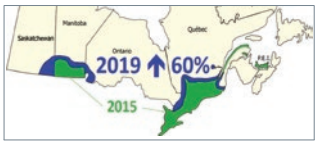
- Crop with the highest growth in Canada (2010-2015) (+43%)
- Forecasted expansion in Canada: +1.3M Ha (+60%)
- Canada exports well over $1B worth of soybean annually, especially to Asia.





GENOMICS SOLUTIONS:

Development of genomic tools that will enable breeders to develop novel soybean varieties that respond to a changing environment and help improve yield and disease resistance.



BENEFITS TO CANADA:

Decreases the amount of chemical inputs (fertilizers, pesticides) leading to fewer chemical residues in soil and water, decreased fuel consumption and increased revenue for Canadian growers and seed companies. Economic benefits of this research have the potential to reach $278 million annually, based on increasing the yield of potential soybean crops, increasing their resistance against diseases and pests, and reducing the use of pesticides.

PROJECT TEAM LEADERS

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La Coop fédérée · SEVITA GENETICS · Western Grains Research Foundation · Université Laval · CEROM · Prograin A world of Soybean · University of Saskatchewan · University of Guelph · Agriculture and Agri-Food Canada · syngenta · Grain Farmers of Ontario · Canadian Field Crop Research Alliance (CFCRA) · Producteurs de grains du Québec · Saskatchewan Pulse Growers · Manitoba Pulse Soybean Growers · IBIS · Embrapa · University of Missouri