



Another project brought to you by **GenomeCanada**

Crop Adaptation Genomics - Use of Genomic Tools for Crop Improvements in Temperate Climates

Integrated GE³LS Research Examining the environmental and socio-economic impacts of low temperature tolerant crops

GE³LS Project Leaders Jim Unterschultz, University of Alberta

Summary

LT (low temperature) tolerant crops may have significant impacts on land-use in agricultural marginal lands, the environment as well as farm-level economic viability. The objectives for the GE³LS research are:

1. Evaluate the farm-level benefits and costs of LT tolerant crops in Western Canada. Results will be aggregated to regional and national levels.
2. Evaluate the economic impact on land use and land use conflicts. Increased stress tolerance in crops has the potential to move crop production onto different regions, creating potential conflicts or synergies with alternative land uses.
3. Evaluate socio-economic environmental impacts of increased usage of LT crops in Western Canada. The market and non-market benefits and costs from LT tolerant crops will be evaluated for Western Canada.
4. Application of existing consumer and ethics research to anticipated outcomes arising from LT tolerance research. Research on consumer acceptance and ethics will be reviewed, evaluated and applied to this project.