

Priority Areas

Canola AgriScience Cluster 2023-2028

The Canola AgriScience Cluster will channel over \$17 million in public/private funding into four priority areas of research to support sustainable growth of the canola industry. By helping to improve yields, meet increased market demand and enhance economic and environmental sustainability, the findings are expected to advance the growth and resilience of Canada's canola sector.

Priority 1: Climate change and environment – reducing greenhouse gas emissions and increasing carbon sequestration from canola

Canola plays a significant role in carbon sequestration given the deep rooting nature of the crop. Priority 1 activities will concentrate on methods to further increase carbon sequestration, while reducing greenhouse gas emissions from fertilizer and dairy-associated methane emissions. Projects will evaluate strategies to increase nitrogen use efficiency and improve nitrogen management and methods to inform fertilizer rate recommendations.

Priority 2: Economic growth and development – increase canola's global competitiveness

Priority 2 activities are multidisciplinary, demonstrating the development and growth of the canola sector through genomics, plant physiology and the differentiated value of canola meal.

The three activities under priority 2 centered on genomics will look to produce novel clubroot genes, gene-specific markers for precision breeding of blackleg resistant cultivars and new canola genotypes with improved yield and abiotic tolerance. The plant physiology focused activity will aim to improve seed and seedling vigor by collecting additional data through seed vigor screening and profiling. The final three activities under priority 2 are centered around canola meal, further evaluating the positive impact of canola meal in dairy cow and aquaculture diets.

Priority 3: Sector resilience and societal challenges – improving canola's resilience in response to climatic stressors and pest pressures

As climate, insect pressures and pathogens change, so do the environmental and pest management challenges faced by Canadian canola growers. Priority 3 activities will concentrate on canola breeding opportunities to produce improved climate adaptive resilient traits and flea beetle resistant traits, along with optimizing fungicide use for sclerotinia stem rot.

Priority 4: Knowledge and technology transfer and impact assessment – turning results into recommendations and evaluating significance

Along with activities related to administering the Science Cluster to guarantee continued success and high impact of research findings, priority 4 also includes the following activities:

- Knowledge and technology transfer: Increase the value of all Science Cluster research by assisting scientists in sharing their findings from current and past activities with growers and other industry stakeholders. The Canola Council's agronomy specialists will turn research results into tangible practices that can be applied on farms and disseminate findings through innovative strategies and knowledge transfer products, including Canola Watch, the Canola Research Hub, the Canola Encyclopedia and Canola Digest magazine.
- Economic impact assessment: A network of econometric analysts will examine and provide quantitative data on the return on investment of research dollars and impact on the canola industry.