WINTER 2026

Genomics Data Connect: Accelerating Agriculture Innovation

DATA-DRIVEN INNOVATION

Genomics is a big data science that allows us to study the genetic material in all living things from microbes and soils to plants, animals and people. Data analytics, Artificial Intelligence (AI) and Machine Learning (ML) are used to help find patterns in large genomic datasets and generate insights to drive innovation.

In Alberta, advancing agriculture innovation is critical for competitiveness, productivity, climate resilience and food security in the face of global pressures. Agricultural sectors now generate massive volumes of data however much of this information is fragmented or isolated and therefore underused. Improving access to high-value, integrated genomics datasets will enable tools to better forecast risk, manage disease, optimize breeding, and improve crop and livestock performance.

Genome Alberta, with support from the Government of Alberta, is investing in new collaborations to unlock value from public agricultural datasets for soils, crops, livestock, and honeybee health.

ALBERTA INVESTMENT

$1.25M

Leverage ratio 1:1+ with co-funding

APPLICATIONS OF GENOMICS DATA IN THE AG SECTOR

- **Disease Risk & Animal Health**
- **Crop & Livestock Resilience**
- **Soil Microbiology**
- **Sustainability of Honeybees**

KEY OBJECTIVES OF THE INITIATIVE

- **Expand** opportunities to apply big data analytics, AI, and machine learning to agriculture genomics data sets to develop practical solutions for producers.
- **Scale impact** from data generated through previously funded research projects.
- **Promote** a collaborative approach for improved data accessibility and problem solving to stimulate the transfer of innovative solutions across sub-sectors (e.g., dairy to beef, crop to feed systems).
- **Deliver** measurable benefits such as earlier disease detection, reduced input costs, or optimized performance traits.

DRIVING FOR OUTCOMES

Applications will be accepted for projects that demonstrate strong interdisciplinary collaboration and can:

- Advance disease-resilient crop varieties to field validation using identified genomic biomarkers for breeding programs.
- Generate a systems biology understanding of beef cattle performance (like the dairy sector) from ‘omics, nutrition, and environmental datasets.
- Advance genomics-informed bee research to improve sustainability of honeybees.
- Identify root traits for drought tolerance and nutrient uptake functions from analysis of soil microbiome profiles and crop genomics.

WORKING TOGETHER TOWARDS PRACTICAL SOLUTIONS

By encouraging collaboration across the agriculture research communities, industry stakeholders, and agriculture innovation organizations, Genome Alberta is a catalyst for enabling value generation from Alberta’s agriculture ‘omics data sets.

Eligible applications must be led by (an) Alberta-based researcher (from an academic institution, provincial or federal government organization with an explicit research mandate or incorporated not-for-profit with an explicit research mandate). A partnership between public and private sector entities and academic researchers is required to deliver project impacts.

KEY DATES

January 13, 2026	February 10, 2026	March 30, 2026	April 20, 2026	July 01, 2026
Launch of Opportunity	Expression of Interest (EOI) Due	Full Application Due	Notice of Awards	Project Start Date

For more information, program guidelines and application instructions visit **genomealberta.ca**