ALBERTA INNOVATES

AGRICULTURE AND ENVIRONMENT

BIOINDUSTRIAL AND CIRCULAR INNOVATION

CIRCULAR ECONOMY

Expanding Biomaterial Processing Pilot Capabilities to Support Innovation and Growth

The Government of Alberta's Bio Processing Innovation Centre is a pilot facility that provides technical and business development services to stakeholders developing non-food value-added products and applications using agriculture and forestry biomass. The centre offers pre-processing, scale-up manufacturing, and analytical capabilities related to bioplastics and biocomposite materials, waste valorization, natural health products, and specialty ingredients. This project aims to enhance the centre's Biomaterials Program by purchasing and installing several critical pieces of capital equipment that will enable industry to further develop, scale-up, and optimize their biomaterial manufacturing processes.

FUNDING DETAILS

RECIPIENT:
Alberta Agriculture and Irrigation

PARTNERS:
PrairiesCan

TOTAL BUDGET:
$1,570,000

AI FUNDING:
$300,000

PROJECT DATES:
APR 2023 - JUN 2025

PROJECT TRL:
Start: 4
End: 6

APPLICATION

Alberta has an abundance of biomass from agriculture, forestry, and municipal waste streams which can be converted into different types of value-added biocomposite materials. The Bio Processing Innovation Centre enables clients to formulate, test, and manufacture prototypes of these novel biomaterials which helps to advance their projects toward commercialization. Biomaterials are renewable and can replace traditional plastic products such as packaging, films, automotive parts, cooking ware and utensils, etc.

ALBERTA INNOVATES

AGRICULTURE AND ENVIRONMENT

BIOINDUSTRIAL AND CIRCULAR INNOVATION

CIRCULAR ECONOMY

PROJECT GOALS

- Purchase, install, and commission equipment related to fibre preparation and feeding, biomaterial processing, and property testing and analysis at the Bio Processing Innovation Centre.
- Help advance innovation in the biomaterial sector by providing expertise and equipment related to industry, academia, and industry organization.
- Help Alberta maintain a leadership position in fibre processing and biomaterial development by enhancing its innovation ecosystem.
- Provide a low-cost integrated solution to companies so they can de-risk early-stage research and development.
- Work with companies and stakeholders to explore value-added opportunities for various agricultural biomass.

BENEFITS TO ALBERTA

- By enhancing the capabilities and services at the Bio Processing Innovation Centre, Alberta will be able to attract investments and skilled labor to the province.
- Alberta companies will have a competitive advantage by accessing the low-cost one-stop-shop services at the Bio Processing Innovation Centre.
- The ability to convert agricultural and forestry biomass into value-added biomaterials could lead to economic and social benefits for Alberta.

5 New Products/Services

5-10 Future Jobs

5 HQPs retained

15 Client Projects

2 Engagement Events

CURRENT STATUS

April 2025 – In progress

Thus far, we have purchased most of the equipment for our biomaterial processing lineup. In the current fiscal year, we expect to purchase, install, and commission an additional 2 pieces of equipment which will enhance our capability to provide technical services to our biomaterial clients.