

Alberta Agriculture and Forestry's Bio-Industrial Opportunities Section

Overview

The Bio-Industrial Opportunities (BIO) Section helps to advance the low-carbon circular bioeconomy, create jobs, and stimulate economic diversification by valorizing Alberta's bio-based resources. We provide technical and business development support to help spur innovation, commercialization and industry development. We are comprised of a team of dedicated professionals who can assist you to advance your bio-based project, from biomaterials and bio-based chemicals to bioenergy and natural health products. Our focuses include:

- 1. New opportunities**
for agricultural/forestry processing and production of value-added products from waste streams and by-products
- 2. Maximizing value**
through fractionation of biomass to isolate high-value ingredients and intermediates
- 3. Facilitate commercialization**
and market access through industry development and extension activities

Technical Operations and Facilities

The Bio Processing Innovation Centre (BPIC) provides essential product development and scale-up support for fibre cleaning and refinement, grain fractionation, separation, extraction, polymerization and extrusion. With a natural health product (NHP) licence from Health Canada, the facility can also work with cosmetic/personal care products and NHPs. State-of-the-art equipment for the following processes are available at a competitive rate:

- Wet and dry fractionation
- Extraction and purification
- Freeze drying and spray drying
- Extrusion
- Ozonolysis and hydrogenation
- Pelletization
- Testing and analysis
- Formulation and scale-up production of cosmetic/personal care products
- NHP batching and filling
- Packaging and labeling



Industry Development

The bioindustry creates many tangible benefits including economic growth and diversification, greenhouse gas emissions reduction, job creation, rural development, and waste management. In spite of this, many companies face a multitude of challenges – including technical, economic, and policy obstacles – that prevent rapid development and commercialization of bio-based products. Our Industry Development Officers work continuously with industry, government, academic researchers, and funders to help overcome these barriers.

Select completed and ongoing projects and cross-Ministry working groups include:

- Specialty/Renewable Chemical & Ingredients (SCI) Initiative
- Market Opportunity Assessment for Alternatives to Formaldehyde
- Unleashing Value of Industrial Hemp in Alberta
- A Tutorial on Alberta's Hemp Food, Beverage and Textile Business Directory and Retail Demand Study for Hemp and Flax
- Hemp Absorbents for Industrial and Consumer Markets
- Sustainable Packaging – Alberta Opportunities
- Industrial Hemp Seed Production Costs and Returns in Alberta
- Meeting Green Building Product Requirements: An Analysis Tool and Case Study
- Nutrient Recycling Program Pilot in a Greenhouse Operation
- An Organic Waste Inventory for Alberta's Agrifood Sector

- Food Waste Study
- Canadian Food Loss and Waste Case Study Series
- Food Processing Wastewater Treatment
- Alberta Biogas Industry 2016 – A White Paper on Policy and Economic Outlook
- Bioenergy Producer Program
- Alberta Clean Fuel Standard

Contact Us

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