



# History. Expertise. Transformation: Manitoba – A Centre for Ag Biotech

**MANITOBA IS NOT ONLY THE CENTRE OF CANADIAN CROP PRODUCTION BUT IS THE CENTRE FOR AGRICULTURAL BIOTECHNOLOGY** (ag biotech) innovation. Researchers and industry are contributing to the advancement of crop productivity production enhancement and improving food security at global level.

The Manitoba ag biotech sector revenues were 5.36 billion in 2021 with over 360 companies currently here. Agritech or Ag biotech is the fastest growing industry in Manitoba and it is projected to have over 700 new jobs in the next 3 years and currently employs 8500 people, researchers and scientists.

As an industry association, the Bioscience Association Manitoba (BAM) is an ardent advocate for ag biotech. Since it's inception, BAM has been a trusted resource and connector focusing on enabling the success of our members in the areas of plant genomics, precision agriculture, health treatments for animals, and health food and ingredients. These sectors offer new business opportunities that enable our entrepreneurs to think about creating disruptive businesses and new innovative technologies.

## Manitoba - Innovation Hub for Ag Biotech Value-added Industry

### XITEBIO

Based in Winnipeg, XiteBio is an agriculture company engaged in crop inputs and agriculture supplements for Canadian, American, European, and South American markets. XiteBio Technologies is creating innovative, cost-competitive, eco-friendly liquid inoculant product lines that improve crop health of their crops leading to better yields.

### MSPREBIOTIC AND SOLNUL

MSP Starch Products Inc. (MSP) offers Solnul, a proprietary prebiotic resistant starch produced through the upcycling of aqueous raw material from potato manufacturing. It is the first Canadian company to receive certification for Solnul from UpcycledFood.org, an NGO focused on reducing food waste. Dietary supplement and food companies that incorporate ca. 10% of Solnul can use a front of pack logo "Upcycled Certified" to inform consumers of their efforts in environmental sustainability and is a great example of the circular economy at work in Manitoba!

### PRAIRIE FAVA

Prairie Fava (PF) was established in 2014 in Glenboro Manitoba, as a manufacturer focused only on fava as a whole food ingredient supplying whole bean, dehulled splits, raw and precooked flour, flakes and grits. PF is integrated and specialized in the commercial production, selling, and marketing of fava bean food ingredients offering complete traceability and control from seed to end product. In 2020, PF partnered with Roquette LLC in a large Protein Industries Canada funded project focused on technology development and commercialization of high-quality plant protein ingredients and consumer products from fava.

### CONVIRON

Convicon is a global leader in precision reach-in plant growth chambers, walk-in rooms and custom controlled environments for plant research, cannabis production and plant-derived pharmaceutical applications. Founded in 1964, they are the only manufacturer singularly focused on the technology and science of plant growth in controlled environments. Convicon has developed specialized expertise and understanding in plant responses to controlled environmental factors. They are the most highly cited plant growth chamber and room manufacturer in thousands of peer reviewed academic publications around the world.

### KGS GROUP

The effects of climate change, coupled with the rising costs of land, machinery, fuel, pesticides and fertilizers, have agricultural producers looking for alternative, innovative solutions to increase yields. Bio-inoculants, natural micro-organisms applied to soil or plants to improve soil health, may be one such solution. KGS Group in collaboration with University of Manitoba researchers have developed two bio-inoculant strains, KGS-2 and KGS-3, to help farmers tackle the many challenges they face today in an environmentally friendly way.

## Manitoba - Innovation Hub for AgBiotech Value-added Research

Manitoba has a long history of enabling the ag biotech industry to fully realize value-added applications for their crops and livestock. The development of consumer ready products especially in food and health, can bring significant economic returns and improved incomes for primary producers. Manitoba is home to 24 world class agrifood research and development center that work in parallel to support farm to fork innovations.

### THE FOOD DEVELOPMENT CENTRE

With over thirty years of expertise, the Food Development Centre (FDC) excels in food research combining product commercialization with technical and research assistance for agri-food businesses, with a service focus on plant and animal protein products and ingredients. FDC offers laboratory trials to commercial readiness of food product prototypes and food ingredients.

### RICHARDSON CENTRE FOR FOOD TECHNOLOGY AND RESEARCH

As part of the University of Manitoba, the RCFTR is an important research partner in the ag biotech cluster. The Centre is available to the agri-food, natural health product, and pharmaceutical industries to determine structure, function, efficacy, and safety through controlled animal and human studies. A unique Pilot Plant supports the manufacturing process from prototype through to commercial scale-up including capabilities for the extraction of bio-actives from plant material or food products.

### PRAIRIE RESEARCH KITCHEN, RED RIVER COLLEGE POLYTECH

The commercialization of agri-food depends not only on supply of raw materials which are in abundance in Manitoba, but on taste and appearance of the final consumer ready product. The Prairie Research Kitchen (PRK) is the leading Culinary Research & Innovation program in Western Canada devoted to combining food science with culinary arts to develop incredible products. Located at Red River College's School of Hospitality and Culinary Arts, PRK has access to five modern kitchens and bake labs, two restaurants, and a mixology lab.

### WHY MANITOBA?

Traditionally known as the gateway to the West, Manitoba is quickly becoming the Gateway to the World.

Manitoba's bioscience industry, while gaining strength and momentum, will continue to drive the bioeconomy to the next level through collaborations and partnerships across the country and around the world.

**Ag-Biotech**  
The Manitoba Advantage

Find out more at **biomb.ca**