



Canada-BC Agri-Innovation Program Success Stories List

Funding for the Canada-BC Agri-Innovation Program has been provided by the Governments of Canada and British Columbia through *Growing Forward 2*, a federal-provincial-territorial initiative.





ICICLE TECHNOLOGIES INC. (A DIVISION OF BURTON SOFTWARE INC.)

ICICLE FOOD PRODUCTION MANAGEMENT SYSTEM

\$175K

FUNDED BY THE CANADA-BC AGRI-INNOVATION PROGRAM



INTERNET OF THINGS CLOUD COMPUTING

Background

- Headquartered in Richmond, B.C.; Icycle Technologies Inc.'s cloud-based software "Icicle" automates food safety instead of merely digitizing it, using technology that connects quality assurance, traceability, food safety, and vendor management under a single, unified digital platform.
- Icicle automates documentation and third party certifications, reducing the administrative burden significantly.
- Burton Software initiated the project in 2011 with three employees. During the 2 1/2 years since, Icicle went through a series of beta trials until the application grew to become a food production management system in 2016.
- \$175,665 since 2013 from the Canada-BC Agri-Innovation Program allowed Icicle Technologies to commercialize Icicle and target product development and adoption by small and medium-sized enterprises in BC.

\$21M

POTENTIAL SAVINGS IF FOOD MANUFACTURERS ADOPT ICICLE

FOOD SAFETY IN B.C.

Food-borne illnesses are a major food safety concern expressed by the public. This technology aims to enhance food safety and reduce this concern.

39

NUMBER OF JOBS BY 2019



INCREASED FOOD SAFETY AND EFFICIENCY

Benefit to British Columbia

- Since 2014, Icicle Technologies estimates that \$6 million have already been saved by 22 food processors in B.C.
- The system enhances audit support by enabling auditors, company officials, and consultants to collaborate online, often reducing audit times by up to 40%.
- What started as a three-person team in 2011 is projected to create an additional 39 jobs by 2019.
- The software solutions allows small and medium-sized companies to quickly and cost-effectively create and manage food safety programs, allowing them to innovate, grow, and maintain market share.
- Regulations emerging in Europe and the U.S. will mandate a much higher food safety standard in the future.

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BOVICOR PHARMATECH INC.

NON-ANTIBIOTIC TREATMENT OF BOVINE RESPIRATORY DISEASE COMPLEX (BRDc)

\$207K

FUNDED BY THE CANADA-
BC AGRI-INNOVATION
PROGRAM

Background

- Bovicor Pharmatech Inc. is a Vancouver based company that is developing alternatives to antibiotics for the prevention of disease in animals. There is a concern that use of antibiotics in agriculture is reducing the effectiveness of antibiotics in combating human illness.
- Bovicor developed a non-antibiotic product called BOVINEX™ to prevent BRDc in beef cattle.
- The active ingredient in BOVINEX™ is Nitric Oxide, a naturally occurring compound which may also be used to treat organic beef animals.
- Initial studies on 60 cattle were promising.

Funding from the Governments of Canada and British Columbia has allowed the company to:

- Expand the study to 1,080 cattle.
- Demonstrate that mortality in the BOVINEX™ group was 25% less than the Micotil® (antibiotic) cohort and that the intranasal administration of BOVINEX™ was safe for the animals.
- Re-direct their efforts to developing a similar non-antibiotic treatment for mastitis and hoof disease in dairy cattle.



POTENTIAL GLOBAL
REVENUES OF \$33-166
MILLION AFTER 5-7YEARS
ON THE MARKET



POTENTIAL TO SLOW THE
DEVELOPMENT OF
BACTERIA THAT ARE
RESISTANT TO CRITICAL
ANTIBIOTICS

Bovine Respiratory Disease Complex (BRDc)

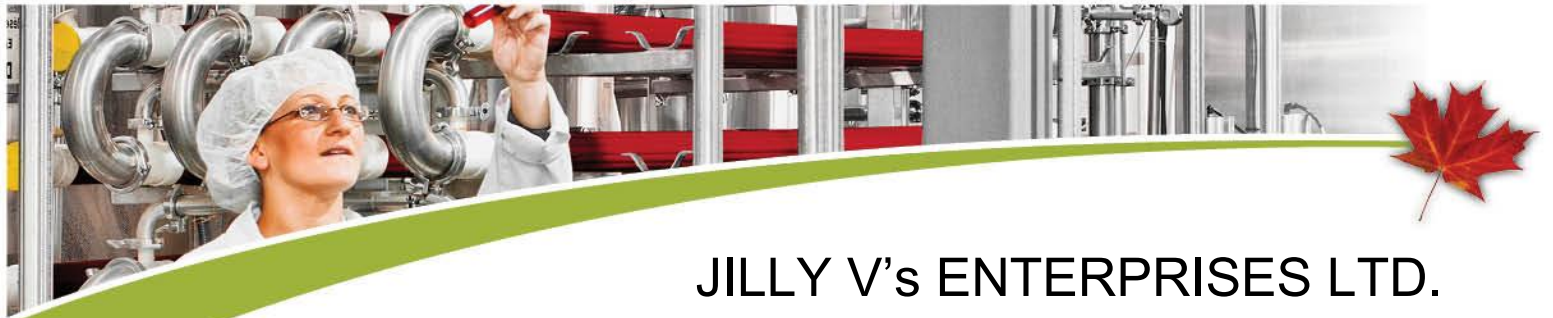
-Is a contagious bacterial disease that affects dairy and beef cattle health and was only treatable using antibiotics. It accounts for 65-80% of sickness and 45-75% of bovine deaths in feedlots

Benefit to British Columbia

- New intellectual and organizational capacity to develop non-antibiotic drugs to treat animal disease.
- A market opportunity with global potential.
- A potential opportunity to reduce the development of bacterial resistance to critical human antibiotics.

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JILLY V's ENTERPRISES LTD.

FREEZE-THAW PRESERVATION

\$8K

FUNDED BY THE CANADA-BC AGRICULTURE INNOVATION PROGRAM

\$125K

INCREASE IN SALES IN THE FIRST YEAR



19 JOBS CREATED BY 2018



YOGURT IS ONE OF THE LARGEST GROWTH AREAS IN THE GRAB-AND-GO MARKET FOR BREAKFAST

Background

- The \$8K project developed an innovative grab and go meal made from chia, oats, yogurt and fruit, which uses freezing as an all-natural preservation method.
- Vancouver-based Jilly V's Enterprises Ltd. developed the first of its kind product containing yogurt that is delivered frozen and thawed to enjoy without sacrificing texture or flavor.
- Few products containing yogurt are able to be shipped frozen and eaten thawed, and this is the only product, containing 49% dairy, in the industry that can.

Funding from the Governments of Canada and British Columbia has allowed the company to:

- Conduct a study on the freeze-thawability of the product to determine how to achieve optimal texture and taste of the thawed product.
- Develop four freeze-thaw products.
- Develop partnerships with major food retailer in 27 different locations in Alberta, Saskatchewan and Manitoba, and 33 locations across B.C.

Through the study, the company was able to formulate an ingredient and processing methodology that can extend the shelf-life of a perishable product containing dairy by 10 months, eliminating food waste and increasing the industry's bottom line. They were successful on all five product lines. Five freeze-thaw products were created and are available in Overwaitea Foods, Sobeys, Safeway, Thrifty's, Loblaws City Markets, Whole Foods, with a broad reach, especially in Alberta, into many food service locations, including hotels, cafes, and recreation centres.

Benefit to British Columbia

- Sales in the first year increased by \$125K, and are expect to triple in 2017 with freeze-thaw preservation and participation in Buy Local marketing initiatives.
- With freeze-thawability, inventory and waste are controlled and cost-savings for the retailers are increased.
- Ingredients are sourced from Organic B.C. dairy and food suppliers creating 19 jobs for British Columbians by 2018.
- \$5 million in projected sales by 2018.

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THE BX PRESS INC.

BLENDED CIDER FOR B.C. AGRIFOODS

\$46K

FUNDED BY THE
CANADA-BC AGRICULTURE
INNOVATION
PROGRAM

Background

- With a growing market for local cider, the BX Press Inc. explored the marketability of ciders blended with B.C. agriproducts including hops, berries, and cherries to increase revenue streams for local agrifood producers.
- With \$46K from the *Growing Forward 2* innovation funding, BX Press produced 10,000L of new cider blends.
- This led to the development and commercialization of new varieties of blended cider, with over 12,000 bottles being sold within 2 months.
- The project also allowed the BX Press to establish successful relations with B.C. producers of products such as hops & cherries to promote the growth of local agrifood products.

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TYPES OF
COMMERCIALIZED
BLENDED CIDERS

Funding from the Governments of Canada and British Columbia allowed the company to deliver:

- 10 new cider products made from full juice hard apple cider blended with B.C. produced primary ingredients.
- Data on consumer preferences for the blended ciders in comparison to the regular apple ciders to understand the market.
- Blending procedures and information for other cider makers considering adding blended ciders to their product selection.

\$750K

POTENTIAL ANNUAL
REVENUE

CIDER IN B.C.

The B.C. cider industry is a growing market for innovative food and beverage products. Consumers are increasingly interested in locally produced beverages made from locally sourced ingredients. The BX Press crafted their cider with the public's interest in mind. Their four ciders feature B.C. Tree fruits such as apples and cherries, in combination with B.C. grown Hops for a delicious, local blended cider.

Benefit to British Columbia

BX Press has successfully demonstrated that hard cider production is a viable option for farmers to increase profits while reducing wasted fruit, while not abandoning the core business of growing apples. Increasing production in the near future will allow BX Press to increase purchase of primary ingredients by \$60,000/year, increase employment in the agri-tourism sector by \$47,520/year, and realize revenues worth \$750K annually. This also impacts B.C. by:

- Increasing demand for B.C. primary products to increase producer revenue.
- Demonstrating a viable use for on-farm and packinghouse “unmarketable” fruit; and
- Providing opportunities for B.C. producers to diversify their production, create additional revenue, and promote local products.

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TOP TIER FOODS INC.

QUINOA QUICKIES

\$14.5K

FUNDED BY THE CANADA-BC AGRI-INNOVATION PROGRAM

Background

- Top Tier Foods Inc. located in Vancouver B.C. creates innovative products using Canadian grown quinoa.
- Their flagship line of quinoa side dishes called Quinoa Quickies are sold across Canada and into Asia. Their newest product, Sushi Quinoa, is set to launch in the spring of 2017 and is the first quinoa in the world developed for the sushi industry.

Funding from the Governments of Canada and British Columbia has allowed the company to:

- Reimagine what Canadian grown quinoa can mean for the world through increased innovation and research.
- Reformulate of current product lines to better compete on a domestic and global stage.
- Test for enhanced nutritional benefits, shelf life and allergen declarations.



The \$14,500 project will enable Top Tier Foods to launch a first-to-market product with business opportunities spanning several sectors in B.C. Sushi Quinoa, a patent protected product with texture attributes similar to sticky rice, will enable restaurants and their consumers to have a greater level of choice when it comes to nutrition. With domestic and international opportunities available, Top Tier Foods is hopeful that Sushi Quinoa will bring lasting jobs to B.C. and support the health of sushi eaters around the globe.



JOB DEVELOPMENT

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ONLINE AND MAJOR RETAIL STORES ACROSS CANADA CURRENTLY STOCK QUINOA QUICKIES

Additionally, Top Tier Foods was able to work with the highest level of food technologists in B.C. to reformulate their existing line of Quinoa Quickies to make improvements to the texture, flavour and ingredient quality. These exciting improvements will strengthen a great B.C. brand and help improve sales both domestically and internationally.

Benefit to British Columbia

- The new products will increase employment opportunities in B.C. through development, procurement, packaging and sales
- Top Tier Foods Inc., a B.C.-based company will help grow the Canadian quinoa industry, an important new industry for Canadian farmers
- Internationally focused products like Sushi Quinoa will help put Canadian food products on the map and will help increase demand for other Canadian produced products around the world.

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