



Industrial  
**HEMP & FLAX**

A Growing Northern Alberta Opportunity!

**EDUCATION  
TOOLKIT**





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*This document is intended to provide a sample of resources available to individuals interested in learning more about industrial hemp and flax production. For a more comprehensive review of resources available, please see the online version of the Industrial Hemp and Flax – A Growing Northern Alberta Opportunity: Education Tool Kit by visiting [www.nadc.ca](http://www.nadc.ca).*

*As the information contained in this document may become dated overtime, please check the original sources for the most up-to-date information.*



**TAB 1**

**OVERVIEW OF ONLINE RESOURCES**



# Directory of Resources

## ***Industrial Hemp and Flax – A growing northern Alberta opportunity!***

*This Directory of Resources is a collection of current resources – please visit direct website for current material/programs and supports.*

<b>Seminar Partners</b>	
<a href="#">Alberta Agriculture and Forestry</a>	The ministry is responsible for the policies, legislation, regulations and services necessary for Alberta's agriculture, food and forest sectors to grow, prosper and diversify; inspires public confidence in wildfire and forest management and the quality and safety of food; supports environmentally sustainable resource management practices; and leads collaboration that enables safe and resilient rural communities. Visit the link for more information: <a href="#">Bio-Industrial Opportunities: Resource Library</a>
<a href="#">Alberta Economic Development and Trade</a>	Alberta Economic Development and Trade Ministry provides leadership on the government's economic development efforts and a single-door access to information and support for businesses and investors.
<a href="#">Alberta HUB</a> (Northeast Alberta Information HUB Ltd.)	Regional Economic Development Alliance (REDA), Alberta HUB is recognized as a partnership of Northeast Alberta communities, post-secondary educational institutions, business and industry committed to developing a strong competitive diversified economy throughout the entire region.
<a href="#">CDEA</a> (Conseil de développement économique de l'Alberta)	The CDEA is recognized by the francophone community of Alberta as an upright and dynamic organization and the leader in economic development.
<a href="#">GROWTH Alberta</a> (Grizzly Regional Economic Alliance Society)	GROWTH Alberta is a Regional Economic Development Alliance serving a region of more than 46,000 people in North Central Alberta. The Alliance was established by the Grizzly Regional Economic Alliance Society so that Municipalities, School Divisions and Support Agencies could work collectively to address regional issues.
<a href="#">InnoTech Alberta</a>	Tech Futures is part of Alberta's research and innovation system and is helping build healthy, sustainable businesses in the province. Through a suite of programs and services directed towards entrepreneurs, companies, researchers and investors, Tech Futures is preparing Alberta for a next generation economy. <i>Effective November 1, 2016, Alberta Innovates - Technology Futures is one of four corporations now consolidated into <b>Alberta Innovates</b> and a wholly owned subsidiary called <b>InnoTech Alberta</b></i>
<a href="#">Northern Alberta Development Council</a>	The Northern Alberta Development Council advances the promise of Alberta's North. NADC's mandate is to help the region's 150 communities and 350,000 people realize their rich potential and strengthen their diverse economies. The Council is made up of a dedicated group of provincial and local leaders and staff tasked with producing quality regional development information, supporting education and skills enhancement programs and building strategic partnerships.
<a href="#">PREDA</a> (Peace Region Economic Development Alliance)	The Peace Region Economic Development Alliance (PREDA) is one of 11 regional economic development alliances (REDA) in the province of Alberta. PREDA is a partnership of 37 municipalities, educational institutions, business groups and Community Futures working together to guide regional economic development of Alberta's northwest – affectionately referred to as the Peace Region.
<a href="#">REDI</a> (Regional Economic Development for Northwest Alberta)	The Regional Economic Development for Northwest Alberta (REDI) formed in 2002 to promote and enhance economic growth amongst its member communities and to promote the region as a whole. REDI is geographically located in the far northwest portion of Alberta and is located within Mackenzie County and the Metis settlement of Paddle Prairie.

<b>Associations</b>	
<a href="#">Canadian Hemp Trade Alliance (CHTA)</a>	The CHTA is a national organization that promotes Canadian hemp and hemp products globally. Established in 2003 the Alliance represents those involved in Canada's hemp industry. Members include; farmers, processors, manufacturers, researchers, entrepreneurs and marketers. The key functions of the Alliance are to disseminate information, promote the use of nutritional and industrial hemp and coordinate research.
<a href="#">Flax Council of Canada</a>	The Flax Council of Canada is a national organization which promotes Canadian flax and flax products for nutritional and industrial uses in domestic and international markets. Established in 1986 with full representation from all agricultural and industrial flax interests, the Flax Council promotes the advancement of flax and flax products.
<a href="#">Saskatchewan Flax Development Commission</a>	The Saskatchewan Flax Development Commission represents more than 5,600 flax producers in the province of Saskatchewan and invests in research, communication and market facilitation activities to further develop the flax industry. The Saskatchewan Flax Development Commission also works to promote production and value-added processing of flax in the province and partner with the flax industry and other agricultural organizations to ensure quality flax and flax products worldwide.

<b>Funding / Grants / Subsidies / Loans</b>	
<a href="#">Agriculture and Agri-Food Canada</a>	Helping Canadian farmers and businesses produce the best possible food and agriculture products. Programs and services support innovation, sustainable farming, business development, managing risk, trade and market development.
<a href="#">Agriculture and Agri-Food Canada</a>	List of Programs and Services through Agriculture and Agri-Food Canada. Provincial and territorial governments also deliver agriculture-related programs and services. For more information visit your provincial or territorial government websites.
<a href="#">Agriculture and Agri-Food Canada - AgriMarketing</a>	The AgriMarketing Program is a five-year (2013-2018) program comprised of a combination of government initiatives and contribution funding for industry-led projects to improve the agriculture, agri-food and agri-based products sector's competitiveness in domestic and international markets by supporting industry in gaining and maintaining access to markets and capitalizing on market opportunities.
<a href="#">Agriculture Financial Services Corporation</a>	Agriculture Financial Services Corporation (AFSC) is a provincial Crown corporation with a private sector Board of Directors that provides farmers, agribusinesses and other small businesses loans, crop insurance and farm income disaster assistance.
<a href="#">Alberta Agriculture and Forestry</a>	Funding your Agricultural Business is a series of three factsheets designed to help you understand the type of funding you need, where the funding is available and the steps needed to secure the money for your new agriculture or rural-based business.
<a href="#">Alberta Agriculture and Forestry (Initiatives Program)</a>	Funds are provided by the Alberta Lottery Fund to encourage improvements in agriculture, the quality of life in the agricultural county and to facilitate rural development. Funds will be granted to agricultural societies incorporated under the Agricultural Societies Act (Alberta), and to other registered not-for-profit organizations with objectives related to agriculture and rural development.
<a href="#">Canada Business Ontario</a>	Agricultural businesses have their own specific funding needs. The high cost of basic farming equipment is one of many challenges that new farmers may encounter. Changing weather patterns, technology or land costs can all affect your profit. From start-up capital to funds for innovative new farming techniques, the costs of doing business can add up. This guide will give you an overview of the financing search tools and programs that are available to agricultural businesses in Ontario.
<a href="#">Canadian Grants Business Centre</a>	The Canadian Federal and Provincial Governments have introduced a wide range of programs including grants, loans and other funding options for Canadian Farmers and Agri-Business.
<a href="#">Economic Development and Trade</a>	Find funding opportunities that support thriving communities and economic prosperity in Alberta's small cities and towns.



<a href="#">Farm Credit Canada</a>	Farm Credit Canada reports to Parliament through the Minister of Agriculture and Agri-Food. Their corporate office is located in Regina, Saskatchewan. They lend money and provide other services to primary producers, agri-food operations and agribusinesses that provide inputs or add value to agriculture.
<a href="#">Growing Forward 2</a>	<i>Growing Forward 2</i> (GF2) is a five-year (2013-2018) <u>policy framework</u> for Canada's agricultural and agri-food sector. GF2 is a \$3 billion dollar investment by federal, provincial and territorial governments and the foundation for government agricultural programs and services.

## Product Development

<a href="#">Alberta Biomaterials Development Centre</a>	The Alberta Biomaterials Development Centre (ABDC) is a virtual entity drawing upon a network of resources from participating agencies; Alberta Innovates – Technology Futures, Alberta Agriculture and Forestry, Alberta Environment and Parks, Alberta Innovation and Advanced Education and Alberta Innovates – Bio Solutions. ABDC is a team made up of engineers, scientist, business officers, client managers, administrative assistants and management that coordinate the resources of Alberta to commercialize new products using biomaterials.
<a href="#">Alberta Innovates</a>	Alberta Innovates is embracing and supporting new technologies and the creation of new ideas for the growing global bioeconomy. Delivering on the potential of agriculture and forestry in areas such as: value chain sustainability, advancing the biorefinery, quality food for health, industry challenges and emerging opportunities, and prion and prion-like protein misfolding diseases. Strengthening ability to develop new sustainability practices, new natural products for world markets and economic opportunities attracting international investment.
<a href="#">Centre for Sustainable Innovation</a>	Lakeland College's Centre for Sustainable Innovation encompasses research in three of the College's four areas of strategic priority and academic excellence: Agriculture, Environmental Sciences, and Energy. These areas are supported by significant strengths in construction, manufacturing, and business and approached with an interdisciplinary mindset.
<a href="#">Olds College Centre for Innovation</a>	The Olds College Centre for Innovation is the scientifically acclaimed applied research division of Olds College. Olds College actively pursues involvement in applied research that advances innovation-based rural economic development in Alberta. The Olds College Centre for Innovation is unique in its delivery of applied research, both to serve industry needs and to provide unprecedented learning opportunities for Olds College students. An integrated approach involving industry experts and unique facilities provides a full range of services, leading projects from conceptual designs to applied research and onto commercialization. The expert staff and unparalleled facilities at the Olds College Centre for Innovation create success.
<a href="#">Portage College - St. Paul Food Sciences Centre</a>	The newly created Food Sciences Centre will serve as the hub of food science programming in the north. With over 5 million dollars spent renovating this state of the art facility, St. Paul can boast culinary programming such as a two year culinary arts diploma, a two year diploma in food sciences, a baking certificate and an institutional cook certificate. If you're looking for a modern office space for your small business, our St.Paul Business Incubators are the perfect solution. Contact 780-645-5223 to learn more and how they can help meet your training needs.

## Agricultural Processing

<a href="#">Agricultural Processing Industry Directory</a>	This directory provides a comprehensive database of agricultural processing companies and industry organizations in Alberta. It is maintained as a reference for use by the business community, government agencies and other interested parties. It serves to update users with current company information including contact personnel, products and brand names.
<a href="#">Alberta Agriculture and Forestry - Food Processing Development Centre</a>	The Food Processing Development Centre situated in Leduc, serves to encourage the growth and expansion of this vital industry in highly competitive domestic and global markets; a modern, fully equipped pilot plant and product development laboratory facility staffed with experienced food scientists, engineers and technologists. Designed to strengthen and expand Alberta's food processors to meet the challenges of the marketplace through application of new technology and the development of new or improved products and processes.

<b>Business &amp; Economics</b>	
<a href="#">ACORNS's Grow a Farmer Initiative</a>	The Atlantic Canadian Organic Regional Network (ACORN) is a membership-based non-profit organization working to enhance the viability and growth of the Atlantic Canadian organic agricultural community through a unified regional network. The Grow a Farmer website offers a variety of national resources related to agriculture business supports.
<a href="#">Agriculture Business Development</a>	Through Alberta Agriculture and Forestry find information on Rural Services: Agricultural Business Development, such as agriculture health and safety, career and personal development, education, environment, food industry, recreation and tourism and rural utilities.
<a href="#">Alberta Agriculture and Forestry</a>	The Business and Economics: Ag Entrepreneurship site provide various resources and topics such as business management, farm law and taxation, farm policy, investment, marketing and production economics.
<a href="#">Alberta Economic Development and Trade</a>	The Tools and References website contain resources, data sets and toolkits to help Alberta's communities build a strong, sustainable economy and quality of life.
<a href="#">Canadian Trade Commissioner Service</a>	This <b>Step-by-Step Guide to Exporting</b> will help you get your business export-ready and well positioned for commercial success abroad.
<a href="#">Community Economic Development</a>	Through the Alberta Government, there are a variety of community economic development tools and resources available for municipalities to grow and thrive; initiatives to help people to work, start or expand their careers in Alberta; and information about industries that fuel our province, entrepreneurship and innovation and the communities that support economic development.
<a href="#">Export agriculture and food products from Canada</a>	Agriculture and Agri-Food Canada (AAFC) can provide you with market information, trade counselling, funding support, access to trade events and export support activities.
<a href="#">Farm Credit Canada</a>	The Farm Credit Canada website offers a variety of tools and resources such as management software, market prices, lending essentials, calculators, and lending options.
<a href="#">Farm Law &amp; Taxation</a>	The Alberta Agriculture and Forestry website offers a variety of resources and supports related to farm debt, farm law and taxation.
<a href="#">Farm Management</a>	Under the Alberta Agriculture and Forest, Farm Manager webpage you will find tools, information and resources to assist in your farm business management planning.

<b>Entrepreneurship &amp; Regional Development</b>	
<a href="#">Alberta Economic Development and Trade</a>	The Government of Alberta fosters sustainable economic growth throughout the province by actively engaging with small business, entrepreneurs, industry and communities across Alberta on economic development initiatives. Some initiatives include: Providing economic and statistical information on a regional basis; Supporting Regional Economic Development Alliances (REDAs); Developing information resources related to regional development and community development; and Hosting economic development conferences and symposiums for industry and community leaders.
<a href="#">Community Economic Development</a>	Visit this Government of Alberta site of resources to help connect with organizations that play an integral role supporting economic development including business, government, municipal, economic development organizations, industry and research.
<a href="#">Community Futures</a>	For 30 years, Community Futures has been supporting small business development and rural economic diversification in Alberta. A community driven, non-profit organization with 27 offices in rural areas throughout Alberta, each office is staffed by local business professionals and guided by a volunteer Board of Directors. They provide a wide range of small business loans, business coaching/training services and business management tools for people wanting to start, expand, franchise or sell a business and run a number of specialized business programs, and actively work with community and business leaders to foster rural economic growth. Funded by the Government of Canada through Western Economic Diversification Canada, there are a total of 269 Community Futures offices across the country.

<a href="#">Futurpreneur Canada</a>	Futurpreneur Canada has been fueling the entrepreneurial passions of Canada's young enterprise for two decades. The only national, non-profit organization that provides financing, mentoring and support tools to aspiring business owners aged 18-39. The internationally recognized mentoring program hand matches young entrepreneurs with a business expert from a network of more than 2,800 volunteer mentors.
<a href="#">Regional Economic Development Alliances</a>	Alberta's Regional Economic Development Alliances (REDAs) developed out a need to stimulate long-term economic development and growth strategies in Alberta's rural and urban communities. Alberta Economic Development and Trade fosters and supports development of REDAs in Alberta through its Entrepreneurship and Regional Development Branch Offices. REDAs in Alberta area autonomous grassroots-based non-profit organizations comprised of member communities and regional stakeholders that work together to foster business development and prosperity in a defined geographic area.
<a href="#">Rural Alberta Business Centre (RABC)</a>	Do you have a great business idea? Are you wondering how to grow your business, improve it or make better decisions? The RABC Offices, in partnership with the Government of Alberta and four local organizations, provide small businesses and entrepreneurs with one stop access to information, advice, research services, seminars, and workshops at four walk-in locations across Alberta. Visit an RABC to get the assistance you need in making informed business decisions from concept to start-up and growth or succession.

<b>Research</b>	
<a href="#">Agriculture Research &amp; Extension Council of Alberta</a>	Agricultural Research and Extension Council of Alberta (ARECA) is a not-for-profit organization working with producers to enhance and improve their operations through access to field research and new technology.
<a href="#">InnoTech Alberta</a>	Visit this site to learn more about existing programs, services and information offered by InnoTech including topics such as oil and gas, food and fibre, environment, health. Effective November 1, 2016, Alberta Innovates - Technology Futures is one of four corporations now consolidated into <b>Alberta Innovates</b> and a wholly owned subsidiary called <b>InnoTech Alberta</b> .
<a href="#">Lakeland Agriculture Research Association (LARA), Bonnyville</a>	LARA ( <i>Lakeland Agricultural Research Association</i> ) is an applied agricultural research association that serves the MD of Bonnyville, County of St. Paul, Smoky Lake County and Lac La Biche County and a member of the Agricultural Research and Extension Council of Alberta (ARECA). Their goal is to conduct applied research, demonstrations and extension programs that provide valuable unbiased information to local producers. LARA conducts innovative, sustainable, unbiased applied agricultural research and extension throughout the Lakeland.
<a href="#">Mackenzie Applied Research Association</a>	The Mackenzie Applied Research Association [MARA] is a not for profit producer driven applied research association. MARA serves producers in the Mackenzie County, the largest County in Alberta and the northernmost commercial agriculture region in Canada. MARA conducts agriculture and environmental research from its Fort Vermilion, Alberta location. MARA is proud to serve the largest number of organic producers in Alberta. The central aims of MARA are to: conduct relevant crop, livestock and environmental research and demonstration trials; develop nutrient strategies and innovative means to manage soils and lands to enhance production while protecting the environment; and deliver relevant extension services to producers with the ultimate aim of reducing production costs, improving crop and livestock marketing while enhancing greater environmental sustainability.
<a href="#">North Peace Applied Research, Manning</a>	The North Peace Applied Research Association is a non-profit, producer driven organization that has been in operation since 1988, serving agricultural producers of the County of Northern Lights. NPARA is a research and extension-based society conducting applied agricultural research, demonstration trials, research plots and extension.



# Industrial Hemp Resources

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## Health Canada

On November 21, 2016, Health Canada issued a Section 56 Class Exemption in Relation to the Industrial Hemp Regulations (Exemption). The Exemption better aligns regulation of industrial hemp with the demonstrated low public health and safety risk of the crop. The Exemption is an interim measure to simplify the licence application process as the Government moves forward with its commitment to legalize, strictly regulate, and restrict access to marijuana.

Licence holders must comply with the terms and conditions of the Exemption and of the licence.

**1. Industrial Hemp Licensing Process**

<http://www.hc-sc.gc.ca/hc-ps/substancontrol/hemp-chanvre/comm-licen/applic-demande/index-eng.php#a1>

**2. Application for Industrial Hemp License**

[http://www.hc-sc.gc.ca/hc-ps/pubs/precurs/hemp\\_app-chanvre\\_dem-eng.php](http://www.hc-sc.gc.ca/hc-ps/pubs/precurs/hemp_app-chanvre_dem-eng.php)

**3. Frequently Asked Questions About Industrial Hemp**

<http://www.hc-sc.gc.ca/hc-ps/substancontrol/hemp-chanvre/about-apos/faq/index-eng.php>

**4. List of Approved Cultivars for 2016 Growing Season**

<http://www.hc-sc.gc.ca/hc-ps/substancontrol/hemp-chanvre/comm-licen/list-cultivars-liste-2016/index-eng.php>

Note: List of Approved Cultivars for the 2017 growing season will be posted soon.

**Please click on links below for full documentation:**

[Communication to Industry](#)

[Notification of Cultivation](#)

[Hemp Exemption](#)

[Application IH 2016-2017](#)

[hemp@hc-sc.gc.ca](mailto:hemp@hc-sc.gc.ca)

Industrial Hemp Section

Authorizations Division

161 Goldenrod Drwy

AL 0300B

Ottawa ON K1A 0K9

## **Alberta Agriculture & Forestry**

### **[Industrial Hemp Enterprise Agdex 154/830-1](#)**

An overall industrial hemp document looking at regulatory, marketing, growing, harvesting and economics.

### **[Industrial Hemp Harvest and Storage](#)**

Document outlines grower, processor and research experiences on the Prairies which will help guide harvest and storage practices to ensure the strict quality requirements for food and fibre production.

It also includes three videos:

[Hemp Production - Pre- Harvest and Harvest](#) | 4:25 minutes

[Hemp Production - Harvesting Fibre](#) | 0:56 minutes

[Hemp Production - Harvest Considerations](#) | 3:21 minutes

**[Hemp Production eGuide](#)** – Canadian Hemp Trade Alliance – with Alberta Agriculture and Forestry, Alberta Innovates Technology Futures and counterparts in Manitoba and Saskatchewan

**[Industrial Hemp Seed Production Costs and Returns in Alberta, 2015](#)** – Alberta Agriculture and Forestry with consultation of Canadian Hemp Trade Alliance

### **[BioMass Quality Network Canada](#)**

The Biomass Quality Network Canada (BQNC) consists of several organizations that are supporting the commercialization of agricultural biomass for industrial applications through the development and adoption of internationally recognized quality standards.

## **Association**

### **[Canadian Hemp Trade Alliance](#)**

**TAB 2**

**HEMP PRODUCTION AND PROCESSING**







# INDUSTRIAL HEMP ENTERPRISE

Revised March 2017  
Agdex 153/830-1  
Industrial Hemp Enterprise

**Published by**

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Figure 1. Industrial hemp crop (photo: Alberta Innovates – Technology Futures)

This publication can assist producers at several levels:

- considering a hemp enterprise
- new entrants to hemp
- expanding their hemp enterprise to make informed decisions regarding crop production, handling and risk management

## Introduction

Low prices of major commodity crops often prompt farmers to diversify their cropping options. These conditions have resulted in a recent influx of new industrial hemp producers. In the past five years, the national acreage of industrial hemp has grown about 25 per cent annually in Canada.

New, emerging opportunities related to fibre utilization for a diversity of industrial applications are expected to continue to create demand for more hemp feedstock in Alberta. Efforts to build whole hemp crop value chains, for both food and fibre, are underway in Alberta.

## Background

The Industrial Hemp Regulations define industrial hemp:

*“ the plants and plant parts of the genera Cannabis, the leaves and flowering heads of which do not contain more than 0.3 per cent THC w/w (tetrahydrocannabinol) including the derivatives of such plants and plant parts that contain no more than 10 µg/g (10 ppm) THC ”*

— <http://laws-lois.justice.gc.ca/PDF/SOR-98-156.pdf>

Originating from Central Asia, industrial hemp arrived in eastern Canada with European settlers early in the 17th century. For the next 300 years, hemp was cultivated for food and fibre across the country, including in Alberta. However, in 1938 the *Opium and Narcotic Act* banned the cultivation, possession and processing of hemp in North America.

In 1994, Canada began to issue research licences to grow industrial hemp on an experimental basis (Figure 1). In 1998, the commercial production of industrial hemp was legalized in Canada with Health Canada being the authority to grant licences.

Currently, Canada is the only country in North America where the cultivation of industrial hemp is legal.



## Regulatory

Health Canada controls the production, processing, possession, sale, transportation, delivery and offering for sale of industrial hemp. All industrial hemp grown, processed and sold in Canada must contain less than 0.3 percent THC in the leaves and flowering parts. In addition, a maximum level of 10 parts per million (ppm) for THC residues in products derived from hemp grain, such as flour and oil, has been set in the regulations.

All commercial industrial hemp crops are planted using only pedigreed seeds of varieties listed in Health Canada's List of Approved Cultivars. Seed saving and the use of common seed are currently not allowed under the regulation.

The hemp industry initially grew varieties that were imported and of European origin. In recent years, Canadian plant breeding programs have developed a number of high yielding cultivars that are suitable to a wide range of growing conditions.

The *Industrial Hemp Regulatory Act* is currently under review. Several significant changes have been suggested at the national industry consultations conducted in 2013. A new act is expected to be approved in 2016.

## Seeded acreage in Canada and Alberta

As with many new crops, there has been considerable fluctuation in hemp production. The number of hemp producers rose from 78 in 2003 to 768 in 2014. Since 2009, seeded acres in Canada have increased consistently, largely driven by the hemp grain market (Figure 2). In 2014, some 108,000 acres (43,706 hectares) were grown in Canada.

The overall production acreage in Alberta trended upwards with a total of 15,892 acres (6,431 hectares) being registered in 2011. In spring 2014, growers' permits were given for 25,557 acres (10,343 hectares) in the province. Alberta's share of total Canadian hemp production area ranged from approximately 2 per cent in 1998 to 32 per cent in 2011.

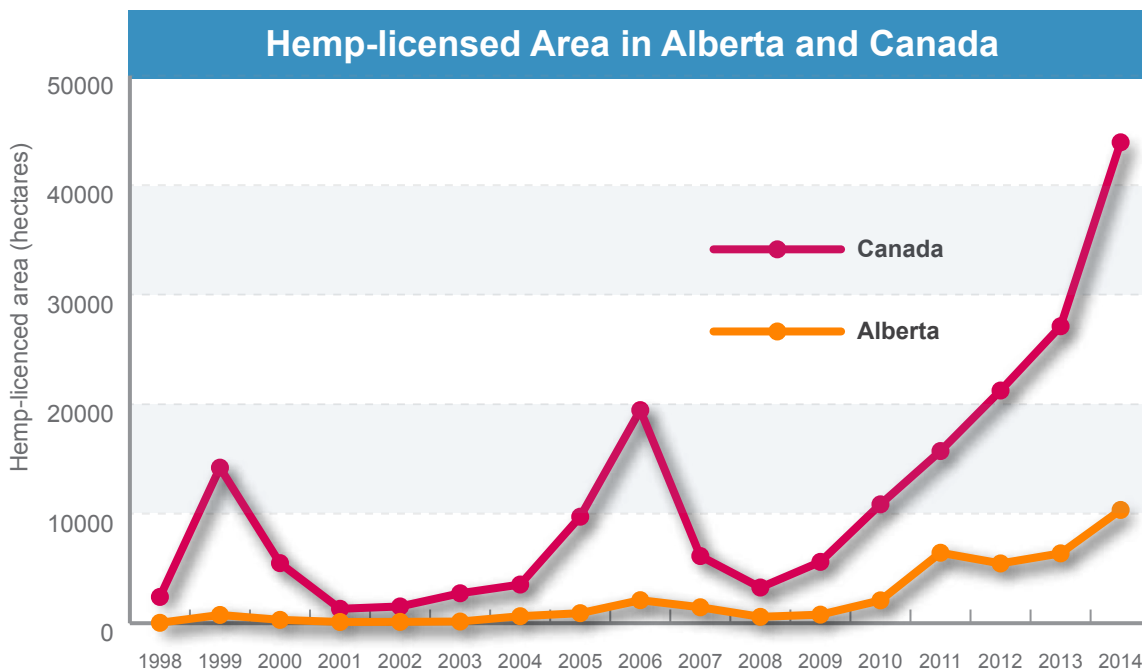


Figure 2. Hemp-licensed area (hectares) in Alberta and Canada (1998 – 2014). Source: Health Canada

While over 20 industrial hemp varieties were grown in 2014 in Canada, 4 grain type cultivars (Finola, CFX-2, X59, and CRS 1) accounted for 90 per cent of the national acreage. In Alberta, the grain type cultivar Finola dominated hemp production, taking 72 per cent of the provincial hemp acres.

Table 1. Industrial Hemp Varieties Cultivated in 2014 in Canada

Variety	Alberta		Other Provinces		Total	
	hectares (ha)	acres (ac)	hectares (ha)	acres (ac)	hectares (ha)	acres (ac)
Finola	7,402.5	18,292	6,263.97	15,479	13,666.47	33,771
CFX-2	1,394.37	3,446	10,142.05	25,062	11,536.42	28,505
X-59	1,470.75	3,634	6,455.92	15,953	7,926.67	19,587
CRS-1	65	161	6,262.26	15,474	6,327.26	15,635
CFX-1			1,253.89	3,098	1,253.89	3,098
Canda			1,150.75	2,844	1,150.75	2,844
Delores			1,017.21	2,514	1,017.21	2,514
CanMa			274.72	679	274.72	679
Anka			263.83	652	263.83	652
Ferimon			215.29	532	215.29	532
USO 31			108.07	267	108.07	267
Alyssa			74.98	185	74.98	185
USO 14			59.88	148	59.88	148
Joey			8	20	8	20
Carmen			4.05	10	4.05	10
Other	10	24.7	11.04	27	11.04	27
<b>Total</b>	<b>10,342.62</b>	<b>25,557</b>	<b>33,565.91</b>	<b>82,943</b>	<b>43,908.53</b>	<b>108,500</b>

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CULTIVATION  
LICENSES IN  
ALBERTA (2014)

# 20

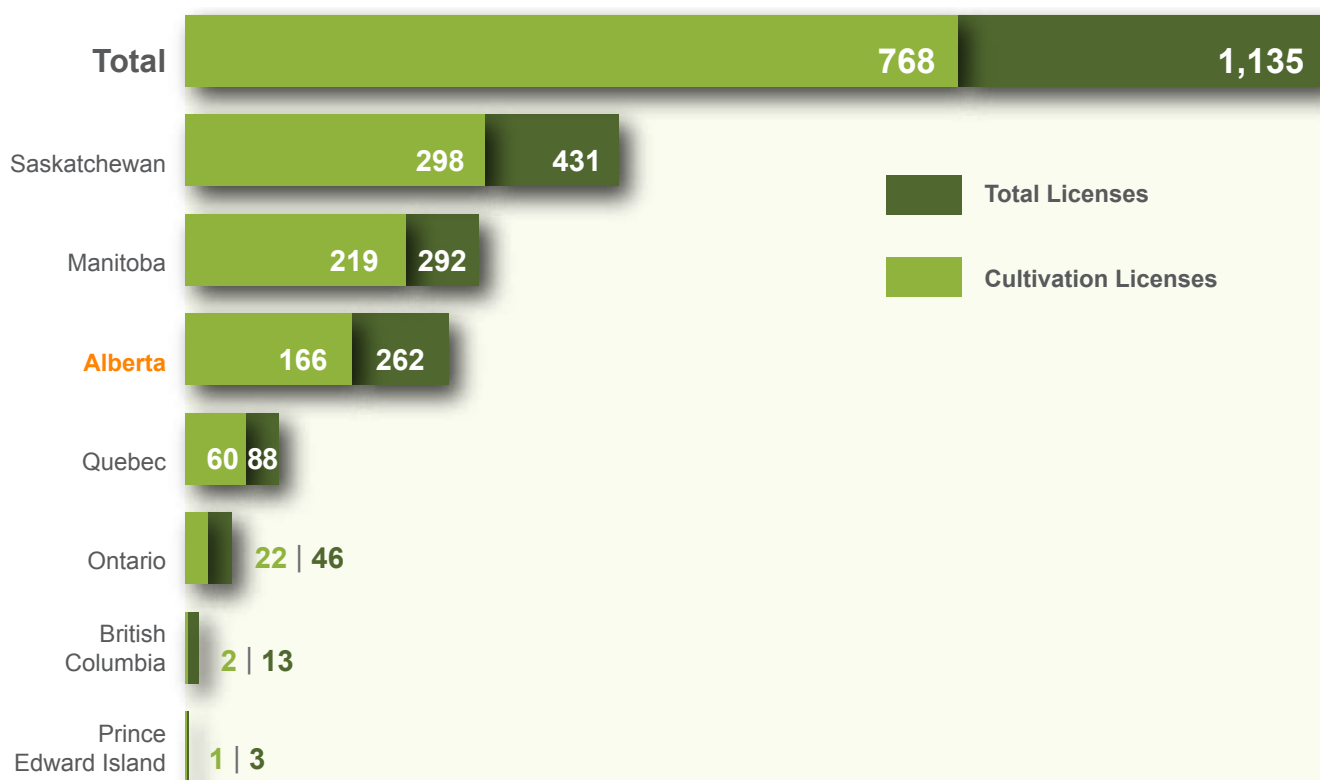
INDUSTRIAL HEMP  
VARIETIES GROWN  
IN CANADA (2014)

# 33,771

ACRES FINOLA  
GROWN IN CANADA (2014)

Industrial hemp cultivation is concentrated in the three prairie provinces while smaller operations are run in Quebec and Ontario (Table 2.). During the last 6 years, Alberta farmers grew 24 to 32 per cent of the Canadian hemp acreage. In 2014, Health Canada granted Alberta growers 166 cultivation licences. Additionally, almost 100 licences were obtained by hemp handlers, buyers and processors.

Table 2. **Health Canada Industrial Hemp Licences 2014**  
(cultivation, processing, handling)



*“ Canadian industrial hemp production is currently driven by the demand for hemp grain (seed, oil and meal) ”*



## Markets: nutritional, industrial and other emerging uses

Hemp is a multi-purpose crop delivering seeds, fibres and bio-active chemicals for a number of uses and markets. Producers can maximize plant value by considering various markets for both the grain and potential new, emerging markets for the straw.

Hemp crops grown in Europe are for fibre production. The current driver for Canadian hemp production is the demand for hemp grain (seed, oil and meal) for food and the nutraceutical market. Other uses (bio-industrial, cosmetic, pet food) for the grain and hemp stalk are under development in Canada (Figure 3).

Both seeds and oil are used for human and pet food. Industrial hemp is not currently approved for use as a livestock feed; however, research is underway to evaluate seed suitability for livestock feed applications. Recent studies commissioned by the Canadian Hemp Trade Alliance have shown that hens will produce

omega-3 eggs when fed with the seed or meal (see [www.hemptrade.ca](http://www.hemptrade.ca)).

In the hemp food and natural health product markets, the nutritional value, beneficial fatty acid and protein profile have established the crop's value in the market. Hempseeds, which are small nuts, have a high nutritional value.

Hempseed oil has an excellent, unique fatty acid profile. The oil is of high nutritional value because of its 3:1 ratio of omega-6 to omega-3 essential fatty acids. The seed contains about 35 per cent oil and 25 per cent crude protein. The oil contains about 80 per cent essential fatty acids, that is, linoleic acid, omega-6, alpha-linoleic acid, omega-3.

Omega 3 and 6 are essential polyunsaturated fats needed by the body to build healthy cells and maintain brain and nerve function, and these fats can only be sourced through food. Nutritionists advocate the consumption of foods with a 2:1 to 4:1 omega 3:6 ratio, which hemp provides.


HEMP SEED		SAMPLE COMMERCIAL USES	
	Oil	Seed / Seed Cake	
			
	cosmetics foods lubricants	paint resins	beer/liquor birdseed cosmetics gluten-free flour non-dairy milk protein powders
HEMP STRAW		SAMPLE COMMERCIAL USES	
	Bast / Fibre	Shive / Hurd	
			
	automotive parts bio-composites canvas carpets caulking containers	geo-textiles insulation packaging paper rope/twine textiles (apparel)	animal bedding building materials fibreboards insulation stucco/plaster

Figure 3. List of sample industrial hemp products

Three tablespoons of hempseed contains 11 grams of protein, comprised of 67 per cent edestin, which supports a healthy immune system (and is also hypoallergenic), and 33 per cent globulin, which is easily digested by humans. Hemp is also a good source of zinc and magnesium.

The initial appeal of hemp is that it is a rapidly renewable material. Then, the benefits of growing hemp increase when considering its exceptional functional properties.

Some Canadian cultivars of hemp can produce an impressive amount of vegetative biomass, reaching up to 10 t/ha. Hemp biomass offers several components: fibre (outer core) about 25 to 30 per cent of the stalk, hurd (pithy inside part) and dust. Processing provides pure elements as well as blends of these components.

In comparison with other bast fibres (such as from flax, kenaf, jute or ramie), hemp fibre has excellent fibre length, strength, durability, absorbency, anti-mildew and anti-microbial properties.

Hemp offers super absorbency. This quality is desirable for oil and gas cleanup, livestock bedding and personal hygiene markets. Hemp's very high tensile strength, strength-to-weight ratio, flexural strength and ability to rebound are desired benefits in bio-composites for automotive parts, aerospace and packaging. The textile, paper and building markets have interest in some specialty applications due to hemp's durability, anti-microbial, acoustic and aesthetic properties.

There is growing demand in food markets for certified organic hemp production. Some 80 to 85 per cent of Canadian grain production is exported, mainly to the United States.

Cosmetics and personal care products are a growing area of market interest. A number of the more than 80 industrial hemp bio-active constituents are of growing interest in medical markets, in particular, cannabidiol (CBD) and turpines. However, these substances are typically harvested from plant parts that are not currently approved for commercial use.

In Alberta, the government is working with industry to advance product development and commercialization as well as facilitate supply chain development in the province. In 2009, the Government of Alberta invested in a pilot decortication facility (a system to separate bast fibres from hurd) in Vegreville. It has a 1 t/hour capability. For more information, see the website [www.albertabiomaterials.ca](http://www.albertabiomaterials.ca)

## Marketing for producers

**It is important to note that anyone considering growing industrial hemp should secure market contracts before planting the crop.**

Growers should secure contracts by teaming up with companies who will buy their seeds. Many buyers also offer value-added extras including access to company agronomists. Please see the Canadian Hemp Trade Alliance website for links to Canadian buyers ([www.hemptrade.ca](http://www.hemptrade.ca)).

The markets for hemp products are new and developing. The business potential of commercial hemp production remains uncertain while markets for hemp products evolve.

Hemp growers must be prepared to undertake market research for the following:

- identify buyers for hemp production
- understand the technical requirements for different hemp products and ensure growers have the necessary systems in place to produce for these different hemp products
- become informed about certifications, such as organic or environmental, to determine cost-benefit to their business
- ensure they have the proper data collection methods to meet buyer(s) and/or certifier(s) requirements

Generally, the demand for hemp products is expected to benefit from a growing demand for products that are environmentally and economically sustainable.

## Environmental benefits

With its fast growth and significant biomass yield, second only to bamboo, hemp supports efficient land use. Once established, the hemp plant thrives well against competitors, therefore lessening the introduction of chemical inputs into the hemp industry as compared to some other commercial crops.

Hemp can be useful in carbon sequestration as it yields 4 times the biomass of an average forest in 90 days compared to 25 years in tree growth. Hemp can provide a useful break in a crop rotation.

Hemp production may generate additional environmental benefits. Research is underway in various world locations to provide documentation to support hemp claims. One claim is that hemp's root system can break up compacted soil, providing aeration, and will also hold soil firmly, which helps control erosion.

Another claim is that hemp may contribute to pollution abatement through its ability to mitigate toxins from the ground through phytoremediation (decontaminating soil or water using plants and trees).

## Licence application

Industrial hemp is a regulated crop in Canada. Growers must apply to Health Canada for a licence to grow the crop. The application is free of charge. Health Canada starts accepting licence applications in November.

Licences to grow industrial hemp for grain or fibre are issued for 1 calendar year for crops of 4 hectares (10 acres) or more and if cultivating for pedigreed seed, not less than 1 hectare (2.47 acres).

Applicants must include required information: specific acreage, cultivar, where seed is sourced from, a map showing field location, legal land description and its co-ordinates, what certified laboratories will be used for testing for cannabinoids and a consent for a criminal record check.

Growers in Alberta have to pay a fee of approximately \$150 for THC analysis, which must be completed by a

technically certified sampler licensing process. For more information, please see the Health Canada website ([http://www.hc-sc.gc.ca/hc-ps/pubs/precurs/hemp\\_app-chanvre\\_dem-eng.php](http://www.hc-sc.gc.ca/hc-ps/pubs/precurs/hemp_app-chanvre_dem-eng.php)) and Industrial Hemp Application Licence Simplified webinar at <https://www.youtube.com/watch?v=ITXuNfmgfgs>

## Varietal selection and sourcing pedigreed seed

Each hemp cultivar on the List of Approved Cultivars has been approved under the Policy for the Inclusion of Cannabis Varieties on the List of Approved Cultivars. The most common approved varieties presently being contracted and grown in Canada are Finola, CFX-2, X 59, CRS-1 and CFX-1 (see Table 1).

In recent years, several new varieties have been released that have been bred specific to the food market (shorter plants) or fibre markets (taller plants). Dual-purpose varieties are under development, including Silesia. Silesia is a new, licenced varietal of Alberta Innovates – Technology Futures and is performing well at field trials in various locations on the Canadian prairies.

Yields of hemp grain vary depending on a number of geo-climatic factors. An average Canadian yield is 850 kg/hectare (750 lbs./acre). Industrial hemp is known for its high biomass yield.

See Table 3 for a list of varieties and hempseed sources.

Table 3. Varietal Selection and Sourcing Pedigreed Seed

Company	Contact Person	Phone / email	Variety
Terramax	Dale Horn	306-281-0977 zennova8@gmail.com	Hempnut (X59)
Hemp Genetics International	Kevin Friesen	604-607-4953 hempgenetics@gmail.com	CFX 1, CFX 2, Crag, USO 14, USO 31
Parkland Industrial Hemp Growers	Canda Chafe	204-629-4367 pihg@mts.net	Alyssa, Delores, Canda, Joey, Debbie, Petera
ArtCan	Gabriel Gauthier	450-830-2842	Ferimon
Hemp Oil Canada	Darrell McElroy	1-800-289-4367 Darrell@hempoilcan.com	Finola



Silesia nursery hemp crop

## Growing hemp

### Plant biology: flowering

Hemp is a short-day plant. Its flowering is delayed by long days and hastened by short days. The hemp stem grows until the end of June or beginning of July. Shorter days then typically trigger flower development.

Hemp is primarily dioecious, that is, the pollen-bearing parts are found in one plant and the seed-bearing flowers on another. Cannabis has a diploid genome ( $2n = 20$ ). The male and female plants are not distinguishable before flowering. The male inflorescence can be identified by the development of round, pointed flower buds with five radial segments, while the female

inflorescence can be identified by the presence of calyx. Male plants die shortly after flowering. The female plants live 3 to 5 weeks until seed is fully ripe.

In a dioecious crop, the number of female plants is 10 per cent to 50 per cent higher than the number of male plants. There are a few monoecious cultivars now that have both male and female flowers on the same plant (Table 4).

There are about 40 cultivars for cultivation in Canada (check the Health Canada web document at [http://www.hc-sc.gc.ca/hc-ps/alt\\_formats/pdf/pubs/precurs/list\\_cultivars-liste2013/liste\\_cultivars-liste2013-eng.pdf](http://www.hc-sc.gc.ca/hc-ps/alt_formats/pdf/pubs/precurs/list_cultivars-liste2013/liste_cultivars-liste2013-eng.pdf)), with 4 cultivars grown widely (see Table 1 on page 3).

Table 4. List of Industrial Hemp Varieties by Type

<b>Dioecious</b>	CanMa, Carmagnola, Carmen: CFX-1, CFX-2, CRS-1, Crag CS (Carmagnola Selezionata, ESTA-1, Finola, Kompolti, Lovrin 110, Petera, USO-14, USO-31, Zolotonosha 11
<b>Female predominant</b>	Alyssa, Fédrina 74, Felina 32, 34, Fibriko, Kompolti hybrid TC, UNIKO-8
<b>Monoecious (have male and female flower parts on the same plant)</b>	Silesia, Ferimon, Fedrina 74, Joey, Delores,

### Stem

Plant height varies significantly among cultivars ranging from 150 cm for Finola to 246 cm for Uso 31. The hemp plant stem can range from 4 mm to 11 mm in diameter in Alberta.

### Biomass properties

Table 5 below shows the physic-chemical properties of hemp varieties grown at two sites in Alberta. The cellulose content of the bast component of hemp varieties ranged between 57 per cent and 65 per cent. The mean cellulose content was 61 per cent. The core of the hemp stalk has 46 per cent cellulose, while the fibrous sheath (bast) has more cellulose (60 per cent).

Table 5. Physical and Chemical Composition of Hemp Stems

	Cellulose (%)	Lignin (%)	Pentosan (%)	Yield (kg/ha)
<b>Core</b>	48	22	22	5,543
<b>Bast</b>	60	3	6	2,697

## Crop physiology

A hemp crop is high yielding, partly because it already shows full ground cover after a thermal time of about 400 to 450° Cd (Cd = thermal time units).<sup>1</sup> Thermal time is the accumulation of temperature to which a plant has been exposed.

Hemp is a short-day plant, which affects crop production. Once the flowering starts, the efficiency with which intercepted radiation is converted to dry matter drops rapidly.<sup>2</sup> The cultivars grown in Europe are usually of French origin and have a critical photo-period of between 14 and 15.5 hours.

Hemp has been photo-period sensitive, meaning it tends to flower at the same calendar date no matter when it is planted. New varieties are available that are not photo-period sensitive.

The differences in growth rate and development between male and female plants are large.<sup>3</sup> The male plants tend to flower and senesce earlier. This variation may limit yields, reduce the efficiency of resource use and may result in variable quality.

## Crop growth

The base temperature for leaves to appear is 1°C and for canopy establishment 2.5°C.<sup>4</sup> From sowing to 50 per cent plant emergence, hemp requires 56° Cd (base 3°C). To reach canopy closure, hemp (at 64 plants m<sup>2</sup>) requires another 340° Cd (base 2.5°C). Hemp seedlings are frost tolerant to about -4°C. Prolonged cold at this stage is detrimental, but not fatal to the plants.

**Table 6. Morphological Development Stages of Finola**  
(sown between mid-May and early June near latitude 50° N)<sup>5</sup>

Morphological stages	Days after sowing
Emergence of seedlings	Day 5 – 7
First true leaves	Day 7 – 10
Second true leaves	Day 10 – 12
Third true leaves	Day 12 – 15
Fourth true leaves	Day 15 – 25
Beginning of flowering	Day 25 – 30
Beginning of pollination	Day 30 – 35
Peak time of pollination	Day 40 – 45
Apparent seed formation	Day 55
End of pollination	Day 55 – 65
Small smell from females	Beginning day 50 – 60
30 – 70% mature seed	Day 70 – 80
60 – 80% mature seed	Day 90 – 100
Male flowers	Normally dead by day 100
Harvest time	Day 100 – 120 after sowing



## Plant density

Hemp plants are grown at a wide range of plant densities, depending on the goal of the production and the expected yield level. Plant density is significantly affected by cultivar, seeding rate and year. Seeding rate has no significant effect on plant height.

Seed sowing rates vary. In Alberta, the recommended hemp stand at harvest for hemp grain production is approximately 100 to 120 plants m<sup>2</sup>. According to data from Manitoba, thousand kernel weights of the current varieties are USO14 = 16 g, USO31 = 18 g, Alyssa = 18 g and Finola = 12 g. These figures give a seeding rate of 24 to 32 kg/ha, depending on variety.

Overall, a high plant density produces a better crop with early growth competition with weeds. Seeds should be drilled at a depth of 2.5 cm in rows spaced 15 to 50 cm apart. Planting at 20 cm row spacing using large seed openers (12.7 cm) gives 67 per cent seed utilization.

For fibre production, seed is sown densely so that growth produces tall, slender stems with small bast cells. Dense stands (300 – 375 plants/m<sup>2</sup>) are preferred when growing hemp as a fibre crop. The recommended seeding rate for hemp fibre production is 67 kg/ha. The higher seeding rate for fibre is due to the need for many fine stems with a higher percentage of fibre in the stems.<sup>6</sup>

## Climate and soil conditions

Hemp is well adapted to growing on the Canadian prairies. It survives dry conditions better than most crops because of its extremely well developed fibrous root system, but it does not like growing in saturated soils for the same reason. For juvenile plants, frost tolerance is similar to other crops, but at the later stages in crop development, the plants can take much harder frosts without damaging seed yield or germination.

Hemp can be grown on a wide range of soil types. Hemp grows best on well drained, loamy soils with high levels of organic matter. Moist, sandy loams with near pH 6 to 7 are best. Heavy compacted clays and low wet areas are not ideal for hemp production.

## Rotation

A rotation of industrial hemp following cereals is useful because volunteer cereals are controlled more easily than volunteer broadleaf crops. Organic hemp is best preceded by perennial alfalfa, green-manure fields, legumes and potatoes because hemp is a high nutrient user.

Volunteer hemp plants emerging in other crops in the rotation must be destroyed. It is not recommended to grow hemp on hemp stubble. Detailed research on the fit of hemp in Prairie crop rotations is warranted.



Hemp growing and retting hemp side by side

## Time of sowing

Hemp seedlings can survive a short frost of up to  $-10^{\circ}\text{C}$ ,<sup>7</sup> and older hemp plants can tolerate frosts of up to  $-6^{\circ}\text{C}$  with little effect on seed quality.<sup>8</sup> Hemp should only be sown once the risk of hard frost has passed.

Because no herbicides are registered for industrial hemp, a seeding date late in May gives the opportunity for some pre-planting weed control. In Alberta, mid to late May is the optimum seeding window, but seeding up to the end of June is possible, often without severe grain yield penalty.

## Seedbed preparation and planting

The seedbed should be firm and relatively fine, similar to that prepared for canola.<sup>9</sup> Industrial hemp is normally sown using standard seeding equipment such as air drills being used for other crops. Ideal seeding depth is 1 to 2 cm, but in good moisture conditions, shallower seeding works very well.

Optimum soil temperature for fast germination is 8 to  $10^{\circ}\text{C}$ , although hempseed will germinate at 4 to  $5^{\circ}\text{C}$ . Packing is good, but do not pack too tightly as excess soil compaction will reduce emergence. Soil compaction due to heavy rainfall after planting can significantly reduce plant emergence.

## Fertilizer

In research studies, hemp has shown a significant yield response to applied fertilizers when levels of plant-available nutrients in soil were low and soil moisture conditions were adequate for plant growth. On the other hand, hemp was generally not responsive to additional phosphorous (P) fertilizer on soils not deficient in available P, or to the addition of sulphur (S) fertilizer on a soil deficient in available S.<sup>10</sup>

Increasing nitrogen (N) rates significantly increased plant height, biomass and seed yield, when data were averaged across all sites (location-years), reaching maximum values at about 150 kg N ha of nitrogen, depending on soil fertility and past cropping history.

Research to date supports the application of 40 to 90 kg/ha of potash for fibre hemp. Growers should base phosphorus ( $\text{P}_2\text{O}_5$ ) and potash ( $\text{K}_2\text{O}$ ) applications on a recent soil test.<sup>11</sup>

Hemp will grow taller and produce more biomass with increased fertilization. In-depth fertility studies that address the needs of different usage types of hemp on the Canadian Prairies are still required.

Increasing fertilization may also delay seed maturation.<sup>12</sup> Organic producers are advised to precede a hemp crop with a perennial alfalfa breaking or green manure plow down.

## Weed control and management

Hemp is competitive with most weeds as long as there are good growing conditions that allow a uniform stand to emerge ahead of weeds.

Pre-seed weed control is the only approved method of weed control in hemp. This control can be a herbicide burn-down or for an organic grower, a cultivation pass.

Hemp can out-compete weeds if several conditions are met: the hemp germinates before the weeds, is grown in a relatively clean field and spring growing conditions are good. Given a good start, hemp can be an effective weed suppressant. A quick, even emergence is the key to effectively competing with weeds by rapidly creating a dense leaf canopy within the first month of growth.<sup>13</sup>

Problem weeds in hemp include hemp nettle, wild buckwheat, wild oat, pigweed, lamb's quarters and Canada thistle. Wild buckwheat seed is especially difficult to clean away from small hempseed. Note, no herbicides are registered for use on hemp in Western Canada for grain production, although pesticide trials are ongoing through the Minor Use Program.<sup>14</sup>

## Disease and pest management

Industrial hemp seems to be fairly disease-free in western Canadian conditions. Under wet fall conditions, stem rot and gray mould/bud blight may be a problem. Early harvest is recommended to avoid fungal damage.

Though major pest issues have not been reported in Canadian crops, research is required to fully understand this area of crop management (Figure 4). Management practices include rotation with non-susceptible crops, disease-free seed and management of hosts such as volunteer canola.





Figure 4. Maturing industrial hemp crop with beneficial field crop insects (photo: Alberta Agriculture and Forestry)

### Field sampling for THC

Field sampling and testing for tetrahydrocannabinol (THC) is a requirement for some hemp varieties. Increasingly, cultivars are being exempted on an annual basis. Please check with Health Canada when applying for a licence and see whether the grower is required to have the crop sampled and tested. Sampling and testing must be done at the early seed set stage in August.

In Alberta, the varieties CRS 1, CFX 2, USO14, USO31 and Crag are exempt from annual testing as required under paragraph 16(1) of the Industrial Hemp Regulations. In total, 11 cultivars are exempt from THC testing in all Canadian Provinces.

## Harvest

### Grain yield

Production is estimated using information gathered on yield and acres harvested. Industrial hemp yield (grain or fibre) varies with variety, plant population, soil conditions, timing of harvest and annual climatic conditions.

The highest seed yield recorded in Canada to date has topped 2,000 lbs. per acre (2,242 kg/ha), and average yield is between 600 to 800 lbs. per acre (673 to 897 kg/ha), but rising. An acre will also produce an average of 5,300 lbs. of straw, which can be transformed into about 1,300 lbs. (590 kg) of fibre.

In Manitoba, hemp grain yields range from 100 to 1,200 lbs. per acre (112 to 1,300 kg/ha), while yield for crops grown and managed solely as fibre crops range from 1 to 6 tons per acre (1 to 6 tonnes/ha). Typical grain yields in Saskatchewan vary from 660 to 1,070 lbs. per acre (740 to 1,200 kg/ha).

In Alberta, hemp grain yields from research plots have been found to vary from 200 to 1,600 lbs. per acre (220 to 1,800 kg/ha). The expected yield would likely average nearly 760 lbs. per acre (850 kg/ha).

### Biomass yield

Hemp straw yields under dryland conditions have an average of between 2.4 to 4.8 tonnes per acre (6 to 12 tonnes/ha) for the higher yielding varieties like Carmen, Alyssa, Delores and Silesia.

The harvest timing for top quality fibre to be used for textiles is important. If harvested too early, plants may be immature, and yield will be low and fibre strength weak. If harvested too late, fibres may become too coarse to use in textile products. For most industrial applications, hemp stalk harvesting after seed harvest is permissible.

### Grain harvesting

Harvest of seed is approximately 100 to 120 days after sowing, depending on variety. Hemp shatters very easily and makes excellent birdseed. Harvest should begin soon after birds are noticed in the field.



*(Top-left) Combine in hemp field (Top-right) Aeration bins (Bottom) Decortication facility Vegreville*

Straight combining industrial hemp seems to be the preferred harvest method, especially with taller varieties. Excess biomass material going through the combine can cause problems, so harvesting only the inflorescences is preferred.

Because seed is easily damaged, many farmers will combine in the 18 to 20 per cent moisture range and dry the seed to around 10 per cent for storage. It is important to aerate the grain immediately off the combine down to about 9 per cent moisture – this step is critical to prevent seed heating, to reduce mould growth and to preserve seed quality.

Reduce cylinder, rotor and unloading auger speeds to prevent seed damage while harvesting. Watch for fibre wrapping around shafts, particularly the drive shaft and sprockets of the feeder chain, or front beater, and front drum for the feeder chain. There are some combine modifications that may limit fibre wrapping and speed up harvesting.

Modest ground speeds and input rates, with high engine speeds, should help limit potential problems. As always, careful attention is the best way to prevent mechanical problems.

### Stalk harvesting

Hemp can be cut strictly for fibre and the remaining stalk after combining can be cut with a discbine or sickle bar mower. Ideally for good decortication, this material will then be baled using either a big round or big square baler after some retting has taken place, but it can be baled immediately upon drydown.

### Retting

The quality and quantity of hemp fibre yield are affected by retting, the process of partially breaking down the gummy substances, especially pectin, that bind the fibres together in bundles and to the plant core. Retting can be done chemically or biologically.

In field dew retted approaches, the stems are left spread over the surface of the field after the crop has been cut until stems start to turn black. During this time, the spread stems are normally turned a number of times to expose them evenly to light and moisture. Field retting micro-organisms attack the hemp stems and break down the cementations that bind them together.

An alternative method of stem harvest is to leave the stalk standing through the winter and roll the stems in the spring to break them off at ground level before raking and baling. This approach is called winter retting. Other forms of retting in and beyond the field include water, chemicals and enzymes.

### Drying and cleaning

Ideally, drying should begin in the field. In wet conditions, combined grain can be dried in a grain dryer and aerated in grain bins, the same as with other crops. For the highest quality, SLOWLY dry hempseed down to 9 per cent moisture in a grain dryer, immediately after harvest, at LOW temperatures (20° – 25°C maximum) and HIGH volumes of air flow. Faster drying temperatures can be used for lower quality grain, like for paint or animal feed.

Moisture should be checked with a calibrated meter. Finola grain can be effectively cleaned with the following sieve sizes: 1.60 to 3.25 mm oblong and 2.50 to 5.00 mm round. A gravity table may be necessary to remove some seeds. All seed cleaning facilities handling hemp must obtain a licence from Health Canada.<sup>15</sup>

### Storage

The grain should not be stored for any amount of time without sufficient drying. Mould problems can ruin a harvest within a few hours, in some cases. Be sure that the drying facility is nearby and available at harvest time, and be sure that the moisture meter is pre-calibrated for oilseed hemp.

Store dried grain in bins or tote bags, away from birds. Hempseed should keep well for 2 to 3 years if properly dried and stored.

## Economics

Below is a recent Cost of Production Study done in 2015. To access just this report, please click here. [http://www1.agriculture.alberta.ca/\\$department/deptdocs.nsf/all/econ16267](http://www1.agriculture.alberta.ca/$department/deptdocs.nsf/all/econ16267)

### Industrial hemp seed production costs and returns in Alberta, 2015

This report provides a summary of the 2015 cost of production study for industrial hemp seed grown in Alberta. In total, 10 growers were surveyed to collect their cost of production information. These growers had a total of 2,370 acres (19 fields) representing about 10 per cent of Alberta's hemp seeded acreage in 2015. Out of this total, 1,340 acres (10 fields) were on irrigated land and the remaining 1,030 acres (9 fields) were on dryland. The raw data obtained were reviewed for any information gaps before entering into the computer for analysis. Preliminary results were sent to the survey participants for their review and comments. Specifically, numbers which appeared to be out of range were identified and the growers were asked to verify.

Tables 7 and 8 show the estimated cost of production benchmarks for dryland and irrigated hemp seed grown in Alberta. All of the costs are weighted averages and expressed on a per acre basis. Growers are advised to note that benchmarks do not suggest that all producers in a region have the same "average costs", so application of these averages to individual situations requires caution. In fact, significant farm to farm variation is normal.

### Gross returns

As shown in Table 7, the average area cropped by each dryland grower was approximately 103 acres. Their yield was estimated at 1,074 pounds per acre. With a price of \$0.74 per pound, average gross returns including

miscellaneous receipts, was estimated at approximately \$805 per acre. With regards to hemp grown on irrigated land (Table 8), the average area cropped by a grower was estimated at 133 acres. Their yield was estimated at 1,679 pounds per acre, 56 per cent higher compared to dryland. With a price of \$0.74 per pound, average gross returns including miscellaneous receipts, was estimated at approximately \$1,322 per acre, 64 per cent higher compared to dryland. None of the growers surveyed have realized any revenue from the sale of hemp straw; however, there is potential in the future for straw revenue.

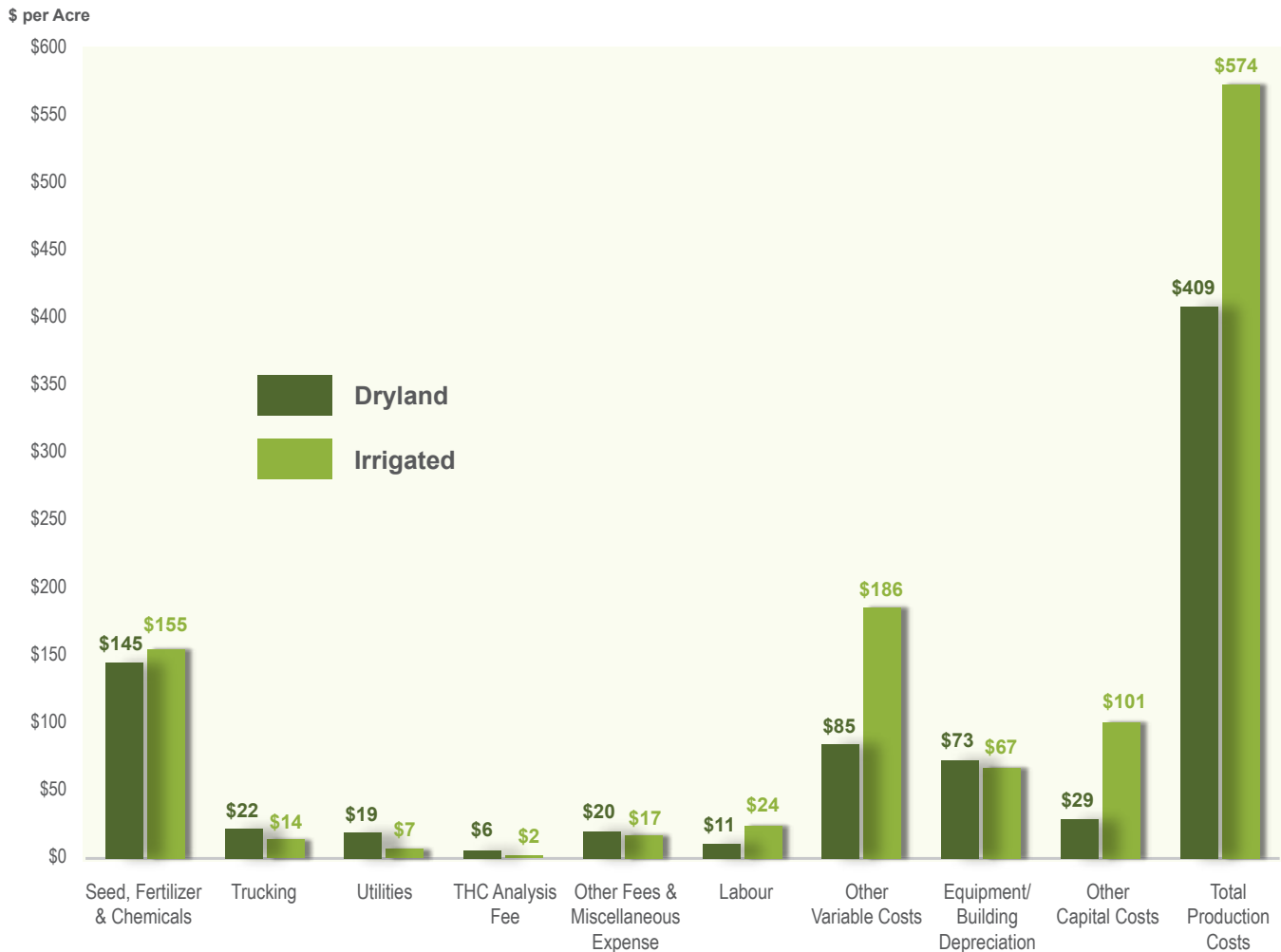
### Total production costs

Total production costs for hemp seed grown on dryland was estimated at \$409 per acre or \$0.38 per pound of hemp seed produced (Table 7). Of this, approximately 75 per cent were variable costs and the remaining 25 per cent were capital or fixed costs. The corresponding costs for hemp seed grown on irrigated land was estimated at \$574 per acre or \$0.34 per pound (Table 2). Of this, approximately 71 per cent were variable costs and the remaining 29 per cent were capital or fixed costs.

Expenses associated with seed, fertilizer and chemicals accounted for a significant portion of the operating expenses of growers. For example, it was approximately \$145 per acre for dryland farmers and \$155 per acre for growers on irrigated land. For dryland, this translates to about 35 per cent of total production costs or 44 per cent of total cash costs. Similarly, under irrigation this translates to about 27 per cent of total production costs or 31 per cent of total cash costs. Total cash costs represent all out-of-pocket expenses incurred during the production period. It does not include costs associated with operator and family labour and depreciation for buildings and equipment.

Figure 5 shows a graphical presentation of the total production costs per acre for hemp seed grown on both dryland and irrigated land.

Figure 5. Breakdown of Hemp Seed Total Production Costs, 2015



As shown in Figure 5, expenses associated with testing for tetrahydrocannabinol (THC) was higher for dryland compared to irrigated land. This is due to the different mix of hemp varieties cultivated by the growers. Field sampling and testing for THC is a requirement for some hemp varieties. In Alberta, the varieties CRS-1, CFX-2, USO 14, USO 31 and Crag are exempt from annual testing as required under paragraph 16(1) of the Industrial Hemp Regulations. In total, 11 cultivars are exempt from THC testing in all Canadian Provinces. Increasingly, cultivars are being exempted on an annual basis.

### **Net returns (gross margin, returns to unpaid labour, investment and equity)**

Section (F) of Tables 7 and 8 presents gross margin, returns to unpaid labour, investment, and equity for both dryland and irrigated hemp seed respectively. The following procedures were used to calculate net returns:

#### **Gross margin**

Gross margin is the difference between gross returns and total cash costs. Average gross margin for irrigated land was estimated at \$826 per acre (Table 8). This was approximately 72 per cent higher compared to the \$479 per acre obtained under dryland conditions (Table 7).

#### **Return to unpaid labour**

Return to unpaid labour is gross returns less total production costs other than costs imputed for unpaid family and operator labour. As shown on Table 7, return to unpaid labour for dryland was positive at \$407 per acre or \$0.37 per pound of seed produced. Return to unpaid labour for hemp seed grown on irrigated land was also positive at \$758 per acre or \$0.45 per pound (Table 8).

#### **Return to investment**

Return to investment is gross return less total production costs with the exception of interest payments on capital spending. This reflects the dollar or per cent return to the total value of assets. As shown on Table 7, return to investment for dryland was positive at \$405 per acre or \$0.37 per pound. Return to investment for hemp seed grown on irrigated land was also positive at \$768 per acre or \$0.46 per pound (Table 8).

#### **Return to equity**

Return to equity is gross returns less total production costs (including all capital costs). Return to equity for dryland and irrigated were also positive at \$396 per acre or \$0.37 per pound and \$748 per acre or 0.45 per pound respectively (Table 8).

Table 7. Dryland Hemp Seed Cost of Production in Alberta, 2015

	Group Average	
Acres Cropped (Acres)	103.33	
Number of Fields (Enterprises)	9	
Yield Per Acre (Pound)	1,073.90	
Expected Market Price Per Pound	\$0.74	
	\$ per Acre	\$ per Pound
<b>A. Gross Returns</b>		
Crop Sales	794.69	0.74
Crop Insurance Receipts	0.00	
Miscellaneous Receipts	10.58	
<b>Total Gross Return</b>	<b>805.27</b>	
<b>B. Variable Costs</b>		
Seed	57.55	
Fertilizer Rates: 65N 18P 11K 11S	68.39	
Chemicals	18.88	
Hail/Crop Insurance	14.91	
Trucking and Marketing	21.51	
Machine Fuel (Net of Rebate)	24.39	
Irrigation Fuel	0.00	
Repairs – Machinery	15.28	
Repairs – Buildings	4.04	
Utilities	18.84	
THC Analysis Fee	5.81	
Other Fees and Miscellaneous Expense	19.88	
Custom Work and Specialized Labour	22.80	
Operating Interest Paid	3.75	
Paid Labour and Benefits	0.73	
Unpaid Family and Operator Labour	10.72	
<b>Total Variable Costs</b>	<b>307.46</b>	<b>0.29</b>
<b>C. Capital Costs</b>		
Cash Rent/Crop Share	2.15	
Taxes, Water Rates, Insurance	17.94	
Equipment/Building Depreciation	72.70	
Lease Payments	0.00	
Paid Capital Interest	9.01	
<b>Total Capital Costs</b>	<b>101.80</b>	<b>0.09</b>
<b>D. Total cash costs ( B + C - Unpaid Labour - Depreciation)</b>	<b>325.84</b>	<b>0.30</b>
<b>E. Total Production Costs (B + C)</b>	<b>409.26</b>	<b>0.38</b>
<b>F. Net returns</b>		
Gross Margin (A - D)	479.43	0.45
Return to Unpaid Labour (A - E + Unpaid Operator Labour)	406.73	0.37
Return to Investment (A - E + Paid Capital Interest)	405.02	0.37
Return to Equity (A - E)	396.01	0.37
<b>Investment</b>		
Land	3,954.30	
Buildings	475.66	
Machinery	556.60	
Irrigation Machinery	0.00	
<b>Total</b>	<b>4,986.56</b>	

Source: Industrial Hemp Seed Production Costs and Returns in Alberta, 2015 ([http://www1.agriculture.alberta.ca/\\$department/deptdocs.nsf/all/econ16267](http://www1.agriculture.alberta.ca/$department/deptdocs.nsf/all/econ16267))  
Economics Section, Alberta Agriculture and Forestry, Edmonton, Alberta.

Table 8. Irrigated Hemp Seed Cost of Production in Alberta, 2015

	Group Average	
Acres Cropped (Acres)	133.0	
Number of Fields (Enterprises)	10	
Yield Per Acre (Pound)	1,678.74	
Expected Market Price Per Pound	\$0.74	
	\$ per Acre	\$ per Pound
<b>A. Gross Returns</b>		
Crop Sales	1,242.27	0.74
Crop Insurance Receipts	79.36	
Miscellaneous Receipts	0.00	
<b>Total Gross Return</b>	<b>1,321.63</b>	
<b>B. Variable Costs</b>		
Seed	65.32	
Fertilizer Rates: 84N 17P 9K 8S	57.19	
Chemicals	32.52	
Hail/Crop Insurance	56.49	
Trucking and Marketing	13.80	
Machine Fuel (Net of Rebate)	32.62	
Irrigation Fuel	27.92	
Repairs – Machinery	17.88	
Repairs – Buildings	7.17	
Utilities	7.50	
THC Analysis Fee	2.17	
Other Fees and Miscellaneous Expense	16.97	
Custom Work and Specialized Labour	33.46	
Operating Interest Paid	10.58	
Paid Labour and Benefits	13.34	
Unpaid Family and Operator Labour	10.74	
<b>Total Variable Costs</b>	<b>405.67</b>	<b>0.24</b>
<b>C. Capital Costs</b>		
Cash Rent/Crop Share	46.92	
Taxes, Water Rates, Insurance	34.06	
Equipment/Building Depreciation	67.21	
Lease Payments	0.00	
Paid Capital Interest	20.09	
<b>Total Capital Costs</b>	<b>168.28</b>	<b>0.10</b>
<b>D. Total cash costs ( B + C - Unpaid Labour - Depreciation)</b>	<b>496.00</b>	<b>0.30</b>
<b>E. Total Production Costs (B + C)</b>	<b>573.95</b>	<b>0.34</b>
<b>F. Net returns</b>		
Gross Margin (A - D)	<b>825.63</b>	<b>0.49</b>
Return to Unpaid Labour (A - E + Unpaid Operator Labour)	<b>758.41</b>	<b>0.45</b>
Return to Investment (A - E + Paid Capital Interest)	<b>767.76</b>	<b>0.46</b>
Return to Equity (A - E)	<b>747.68</b>	<b>0.45</b>
<b>Investment</b>		
Land	6,487.22	
Buildings	707.12	
Machinery	321.22	
Irrigation Machinery	45.11	
<b>Total</b>	<b>7,560.67</b>	

Source: Industrial Hemp Seed Production Costs and Returns in Alberta, 2015 ([http://www1.agriculture.alberta.ca/\\$department/deptdocs.nsf/all/econ16267](http://www1.agriculture.alberta.ca/$department/deptdocs.nsf/all/econ16267))  
Economics Section, Alberta Agriculture and Forestry, Edmonton, Alberta.



Many other factors are involved in the cost of production. The cost of seed varies according to varietal. Please see the Canadian Seed Growers Association website at <http://seedgrowers.ca/seed-growers/regulations/>

New Crop Insurance Initiative (NCII) is a program that provides protection to new and non-traditional crops and does not require pre-harvest or post-harvest inspections. Dryland hemp seed as well as dryland and irrigated hemp fibre are covered under “New Crop Insurance Initiative (NCII)” in eligible coverage areas. To be eligible, producers need an active annual crop production insurance contract with insured acres in the current year and also may be eligible for hail endorsement. Please contact AFSC for details.

Some pesticides currently have minor use status and others are in review. For additional information, refer to the following Agriculture and Agri-food Canada sites: <http://www.agr.gc.ca/eng/?id=1286197216280> and <http://www.agr.gc.ca/eng/?id=1298926421274>

Many farmers are using their current machinery as is or with slight modifications to harvest equipment, at minor costs. There is opportunity, if the industry moves toward dual-purpose crops, to consider speciality hemp harvesting equipment. This equipment has been developed and used in Europe and is not yet found in North America.

For safety concerns, some farmers have on-field water pumping equipment available during harvest.

Hemp producers should carefully evaluate the economics of production and develop strategies for achieving low cost production. Individual producers need to understand these factors for their enterprise to be profitable.

Many new entrants grow limited acres (under 300 acres/ 121 ha) of hemp in the first year or two to establish an understanding of the crop before investing in growing a larger number of acres.



Hemp fibre

## Additional web resources

**Growing Hemp in the Prairies Webinar**, February 2014  
[www2.gotomeeting.com/register/409671562](http://www2.gotomeeting.com/register/409671562)

**Industrial Hemp Application Simplified Webinar**,  
 December 2013 <https://www.youtube.com/watch?v=ITXuNfmgfgs>

### Further information, contact

Alberta Ag-Info Centre  
 Call toll free: 310-3276 or 310-FARM  
 Website: [agriculture.alberta.ca](http://agriculture.alberta.ca)

For further information on the hemp industry, please visit the Canadian Hemp Trade Alliance website ([www.hemptrade.ca](http://www.hemptrade.ca)). This alliance is the national industry association for industrial hemp in Canada. Their annual conference and trade show rotates to the various member provinces every year and is usually held in November. This event is an excellent source of information and contacts.

Also, please consult the website ([www.albertabiomaterials.ca](http://www.albertabiomaterials.ca)) for upcoming crop walks and industry events.

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# INDUSTRIAL HEMP SEED PRODUCTION COSTS AND RETURNS IN ALBERTA, 2015

**Alberta Agriculture and Forestry**  
Economics and Competitiveness Branch  
and  
Food and Bio-Processing Branch

**External Release**



November 2016

# INDUSTRIAL HEMP SEED PRODUCTION COSTS AND RETURNS IN ALBERTA, 2015

Funded by

*Growing Forward 2, a federal-provincial-territorial initiative.*

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*The views and opinions expressed in this report are those of the Economics and Competitiveness Branch and Food and Bio-Processing Branch and do not necessarily reflect the official policy or position of the Ministry of Agriculture and Forestry or the Government of Alberta. Analysis performed within this report is based on limited and open source information. Assumptions made within the analysis are not reflective of the position of the Ministry of Agriculture or the Government of Alberta.*

## ACKNOWLEDGEMENTS

### Project Team

The project team included:

- Lori-Jo Graham, Program Lead, Bio-Industrial Opportunities Section.
- Patti Breland, Industry Development Officer, Bio-Industrial Opportunities Section.
- Kellie Jackson, Development Officer, Crop Extension Section.
- Emmanuel Anum Laate, Senior Crop Economist, Economics Section.

A special thanks to Mr. Russ Crawford, President of the Canadian Hemp Trade Alliance for his valuable contributions to the study.

The project team wishes to extend special thanks to all the growers who participated in the survey and provided data for this study. Without the growers' participation in this project, publication of this report would not have been possible.

## **INDUSTRIAL HEMP SEED PRODUCTION COSTS AND RETURNS IN ALBERTA, 2015**

This report provides a summary of the 2015 cost of production study for industrial hemp seed grown in Alberta. In total, 10 growers were surveyed to collect their cost of production information. These growers had a total of 2,370 acres (19 fields) representing about 10 per cent of Alberta's hemp seeded acreage in 2015. Out of this total, 1,340 acres (10 fields) were on irrigated land and the remaining 1,030 acres (9 fields) were on dryland. The raw data obtained were reviewed for any information gaps before entering into the computer for analysis. Preliminary results were sent to the survey participants for their review and comments. Specifically, numbers which appeared to be out of range were identified and the growers were asked to verify.

Tables 1 and 2 show the estimated cost of production benchmarks for dryland and irrigated hemp seed grown in Alberta. All of the costs are weighted averages and expressed on a per acre basis. Growers are advised to note that benchmarks do not suggest that all producers in a region have the same "average costs", so application of these averages to individual situations requires caution. In fact, significant farm to farm variation is normal.

### **Gross Returns**

As shown in Table 1, the average area cropped by each dryland grower was approximately 103 acres. Their yield was estimated at 1,074 pounds per acre. With a price of \$0.74 per pound, average gross returns including miscellaneous receipts, was estimated at approximately \$805 per acre. With regards to hemp grown on irrigated land (Table 2), the average area cropped by a grower was estimated at 133 acres. Their yield was estimated at 1,679 pounds per acre, 56 per cent higher compared to dryland. With a price of \$0.74 per pound, average gross returns including miscellaneous receipts, was estimated at approximately \$1,322 per acre, 64 per cent higher compared to dryland. None of the growers surveyed have realized any revenue from the sale of hemp straw; however, there is potential in the future for straw revenue.

### **Total Production Costs**

Total production costs for hemp seed grown on dryland was estimated at \$409 per acre or \$0.38 per pound of hemp seed produced (Table 1). Of this, approximately 75 per cent were variable costs and the remaining 25 per cent were capital or fixed costs. The corresponding costs for hemp seed grown on irrigated land was estimated at \$574 per acre or \$0.34 per pound (Table 2). Of this, approximately 71 per cent were variable costs and the remaining 29 per cent were capital or fixed costs.

Expenses associated with seed, fertilizer and chemicals accounted for a significant portion of the operating expenses of growers. For example, it was approximately \$145 per acre for dryland farmers and \$155 per acre for growers on irrigated land. For dryland, this translates to about 35 per cent of total production costs or 44 per cent of total cash costs. Similarly, under irrigation this translates to about 27 per cent of total production costs or 31 per cent of total cash costs. Total cash costs represent all out-of-pocket expenses incurred during the production period. It does not include costs associated with operator and family labour and depreciation for buildings and equipment.



Figure 1 shows a graphical presentation of the total production costs per acre for hemp seed grown on both dryland and irrigated land.

**Figure 1 Breakdown of Hemp Seed Total Production Costs, 2015**



As shown in Figure 1, expenses associated with testing for tetrahydrocannabinol (THC) was higher for dryland compared to irrigated land. This is due to the different mix of hemp varieties cultivated by the growers. Field sampling and testing for THC is a requirement for some hemp varieties. In Alberta, the varieties CRS-1, CFX-2, USO 14, USO 31 and Crag are exempt from annual testing as required under paragraph 16(1) of the Industrial Hemp Regulations. In total, 11 cultivars are exempt from THC testing in all Canadian Provinces. Increasingly, cultivars are being exempted on an annual basis.

**Net Returns (Gross Margin, Returns to Unpaid Labour, Investment, and Equity)**

Section (F) of Tables 1 and 2 presents gross margin, returns to unpaid labour, investment, and equity for both dryland and irrigated hemp seed respectively. The following procedures were used to calculate net returns:

**Gross Margin**

Gross margin is the difference between gross returns and total cash costs. Average gross margin for irrigated land was estimated at \$826 per acre (Table 2). This was approximately 72 per cent higher compared to the \$479 per acre obtained under dryland conditions (Table 1).

**Return to Unpaid Labour**

Return to unpaid labour is gross returns less total production costs other than costs imputed for unpaid family and operator labour. As shown on Table 1, return to unpaid labour for dryland was positive at \$407 per acre or \$0.37 per pound of seed produced.

Return to unpaid labour for hemp seed grown on irrigated land was also positive at \$758 per acre or \$0.45 per pound (Table 2).

### **Return to Investment**

Return to investment is gross return less total production costs with the exception of interest payments on capital spending. This reflects the dollar or per cent return to the total value of assets. As shown on Table 1, return to investment for dryland was positive at \$405 per acre or \$0.37 per pound. Return to investment for hemp seed grown on irrigated land was also positive at \$768 per acre or \$0.46 per pound (Table 2).

### **Return to Equity**

Return to equity is gross returns less total production costs (including all capital costs). Return to equity for dryland and irrigated were also positive at \$396 per acre or \$0.37 per pound and \$748 per acre or 0.45 per pound respectively (Table 2).

**Table 1: Dryland Hemp Seed Cost of Production in Alberta, 2015**

	<b>Group Average</b>	
Acres Cropped (Acres)	103.33	
Number of Fields (Enterprises)	9	
Yield Per Acre (Pound)	1,073.90	
Expected Market Price Per Pound	\$0.74	
	\$/Acre	\$/Pound
<b>A. GROSS RETURNS</b>		
Crop Sales	794.69	<b>0.74</b>
Crop Insurance Receipts	0.00	
Miscellaneous Receipts	10.58	
<b>TOTAL GROSS RETURN</b>	<b>805.27</b>	
<b>B. VARIABLE COSTS</b>		
Seed	57.55	
Fertilizer Rates: 65N 18P 11K 11S	68.39	
Chemicals	18.88	
Hail / Crop Insurance	14.91	
Trucking and Marketing	21.51	
Machine Fuel (Net of Rebate)	24.39	
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Repairs - Machinery	15.28	
Repairs - Buildings	4.04	
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Other Fees and Miscellaneous Expense	19.88	
Custom Work and Specialized Labour	22.80	
Operating Interest Paid	3.75	
Paid Labour and Benefits	0.73	
Unpaid Family and Operator Labour	10.72	
<b>TOTAL VARIABLE COSTS</b>	<b>307.46</b>	<b>0.29</b>
<b>C. CAPITAL COSTS</b>		
Cash Rent / Crop Share	2.15	
Taxes, Water Rates, Insurance	17.94	
Equipment / Building Depreciation	72.70	
Lease Payments	0.00	
Paid Capital Interest	9.01	
<b>TOTAL CAPITAL COSTS</b>	<b>101.80</b>	<b>0.09</b>
<b>D. TOTAL CASH COSTS (B+C - Unpaid Labour - Depreciation)</b>	<b>325.84</b>	<b>0.30</b>
<b>E. TOTAL PRODUCTION COSTS (B+C)</b>	<b>409.26</b>	<b>0.38</b>
<b>F. NET RETURNS</b>		
Gross Margin (A-D)	<b>479.43</b>	<b>0.45</b>
Return to Unpaid Labour (A-E + Unpaid Operator Labour)	<b>406.73</b>	<b>0.37</b>
Return to Investment (A-E + Paid Capital Interest)	<b>405.02</b>	<b>0.37</b>
Return to Equity (A-E)	<b>396.01</b>	<b>0.37</b>
<b>INVESTMENT</b>		
Land	3,954.30	
Buildings	475.66	
Machinery	556.60	
Irrigation Machinery	0.00	
<b>TOTAL</b>	<b>4,986.56</b>	

Source: Economics Section, Alberta Agriculture and Forestry, Edmonton, Alberta.

**Table 2: Irrigated Hemp Seed Cost of Production in Alberta, 2015**

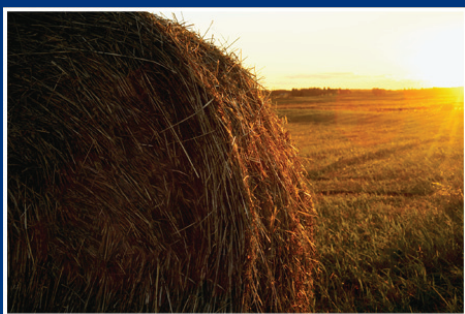
	<b>Group Average</b>	
	<b>\$/Acre</b>	<b>\$/Pound</b>
Acres Cropped (Acres)	133.0	
Number of Fields (Enterprises)	10	
Yield Per Acre (Pound)	1,678.74	
Expected Market Price Per Pound	\$0.74	
<b>A. GROSS RETURNS</b>		
Crop Sales	1,242.27	<b>0.74</b>
Crop Insurance Receipts	79.36	
Miscellaneous Receipts	0.00	
<b>TOTAL GROSS RETURN</b>	<b>1,321.63</b>	
<b>B. VARIABLE COSTS</b>		
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Fertilizer Rates: 84N 17P 9K 8S	57.19	
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Hail / Crop Insurance	56.49	
Trucking and Marketing	13.80	
Machine Fuel (Net of Rebate)	32.62	
Irrigation Fuel	27.92	
Repairs - Machinery	17.88	
Repairs - Buildings	7.17	
Utilities	7.50	
THC Analysis Fee	2.17	
Other Fees and Miscellaneous Expense	16.97	
Custom Work and Specialized Labour	33.46	
Operating Interest Paid	10.58	
Paid Labour and Benefits	13.34	
Unpaid Family and Operator Labour	10.74	
<b>TOTAL VARIABLE COSTS</b>	<b>405.67</b>	<b>0.24</b>
<b>C. CAPITAL COSTS</b>		
Cash Rent / Crop Share	46.92	
Taxes, Water Rates, Insurance	34.06	
Equipment / Building Depreciation	67.21	
Lease Payments	0.00	
Paid Capital Interest	20.09	
<b>TOTAL CAPITAL COSTS</b>	<b>168.28</b>	<b>0.10</b>
<b>D. TOTAL CASH COSTS (B+C - Unpaid Labour - Depreciation)</b>	<b>496.00</b>	<b>0.30</b>
<b>E. TOTAL PRODUCTION COSTS (B+C)</b>	<b>573.95</b>	<b>0.34</b>
<b>F. NET RETURNS</b>		
Gross Margin (A-D)	<b>825.63</b>	<b>0.49</b>
Return to Unpaid Labour (A-E + Unpaid Operator Labour)	<b>758.41</b>	<b>0.45</b>
Return to Investment (A-E + Paid Capital Interest)	<b>767.76</b>	<b>0.46</b>
Return to Equity (A-E)	<b>747.68</b>	<b>0.45</b>
<b>INVESTMENT</b>		
Land	6,487.22	
Buildings	707.12	
Machinery	321.22	
Irrigation Machinery	45.11	
<b>TOTAL</b>	<b>7,560.67</b>	

Source: Economics Section, Alberta Agriculture and Forestry, Edmonton, Alberta.

## Alberta Biomaterials Development Centre

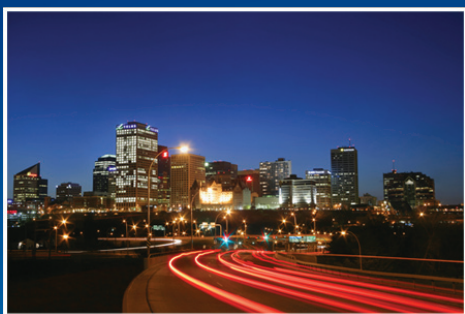
Biomaterials are products made from plants and their fibres.

The Alberta Biomaterials Development Centre (ABDC) is an initiative accelerating the development and commercialization of bioproducts for a new economy. By offering business and technical services, as well as access to pre-commercial scale processing, including the largest fibre pilot plant in North America, ABDC drives and transforms biomaterials research and development. Accessing biomaterial expertise in Alberta is simple with ABDC's approach that links innovative research to business development and transforms knowledge for commercial applications.



### Services & Technology

- Pilot scale biomass and biofibre processing
- Business development
- Market assessment
- Biomass research
- Biofibre industry development
- Bioproduct development
- Industry networks
- Funding assistance



### Centre for Innovation

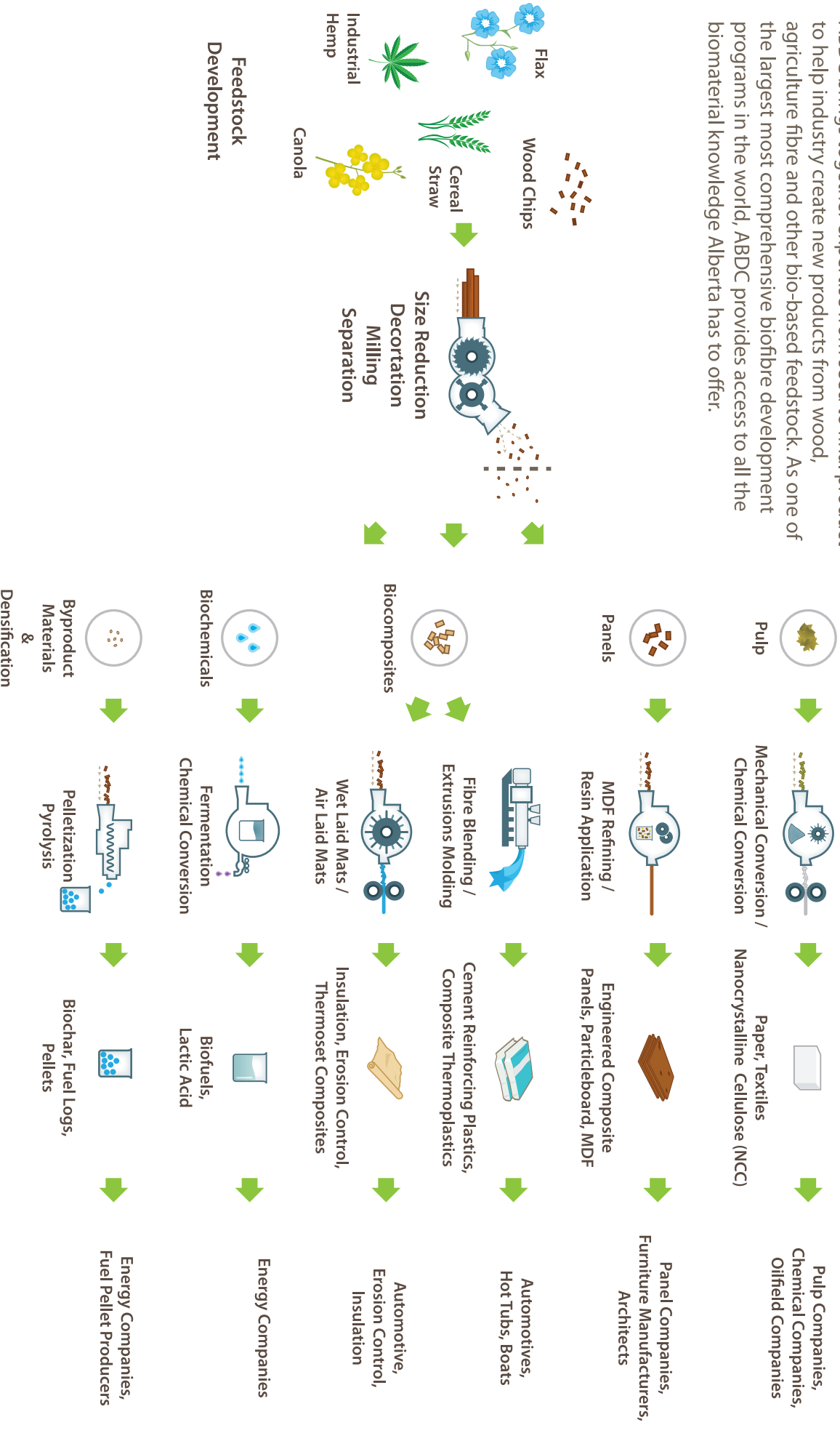
Building on Alberta's foundation in natural resources, ABDC connects expertise of the agriculture, forestry, petrochemical and technology industries to cultivate innovation in development and commercialization of biomaterials with expertise in pulp and paper, biocomposites, agronomy, biomass and lignocellulosic research and biochemical research and development. These biomaterials are used to make everything from cars to building materials and textiles, and the next generation of consumer products while ensuring sustainability of Alberta's environment and economy.

From seed to final product: ABDC the premier initiative in the world that enables Alberta crop producers, forestry companies and established businesses to access world-class expertise and facilities for biomaterial research, development and commercialization.

# Seed to Final Product

ABDC brings together expertise from seed to final product to help industry create new products from wood, agriculture fibre and other bio-based feedstock. As one of the largest most comprehensive biofibre development programs in the world, ABDC provides access to all the biomaterial knowledge Alberta has to offer.

## Current Possibilities

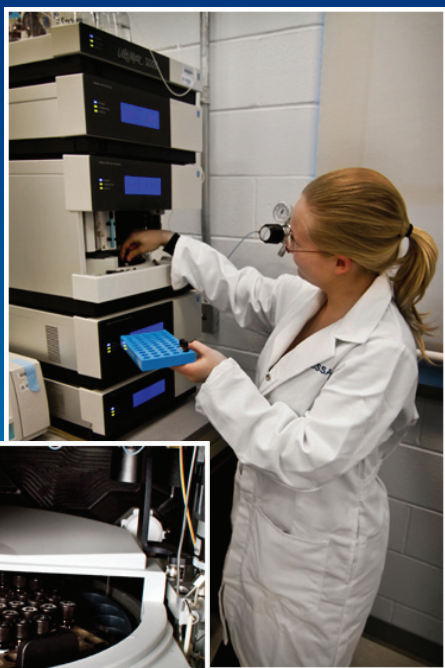


## Biochemical Innovation

Experts at the Alberta Biomaterials Development Centre (ABDC) facilitate the conversion of forestry and agricultural fibres into biochemicals and link with partners such as the Biorefining Conversion Network to provide tailored approaches to research and development. Biochemicals are plant-based substances now used to replace petrochemicals in new product development, while enhancing performance and improving economics. ABDC has the capability to develop economically viable and environmentally friendly refining processes for the biochemical industry.

### Services & Technology

- Structure characterization
- Treatment and derivatization of cellulose
- Catalyst use efficiency
- Component separation
- Biomass modification
- Alkaline processing
- Ozonolysis-hydrogenation plant
- Polyol pilot plant



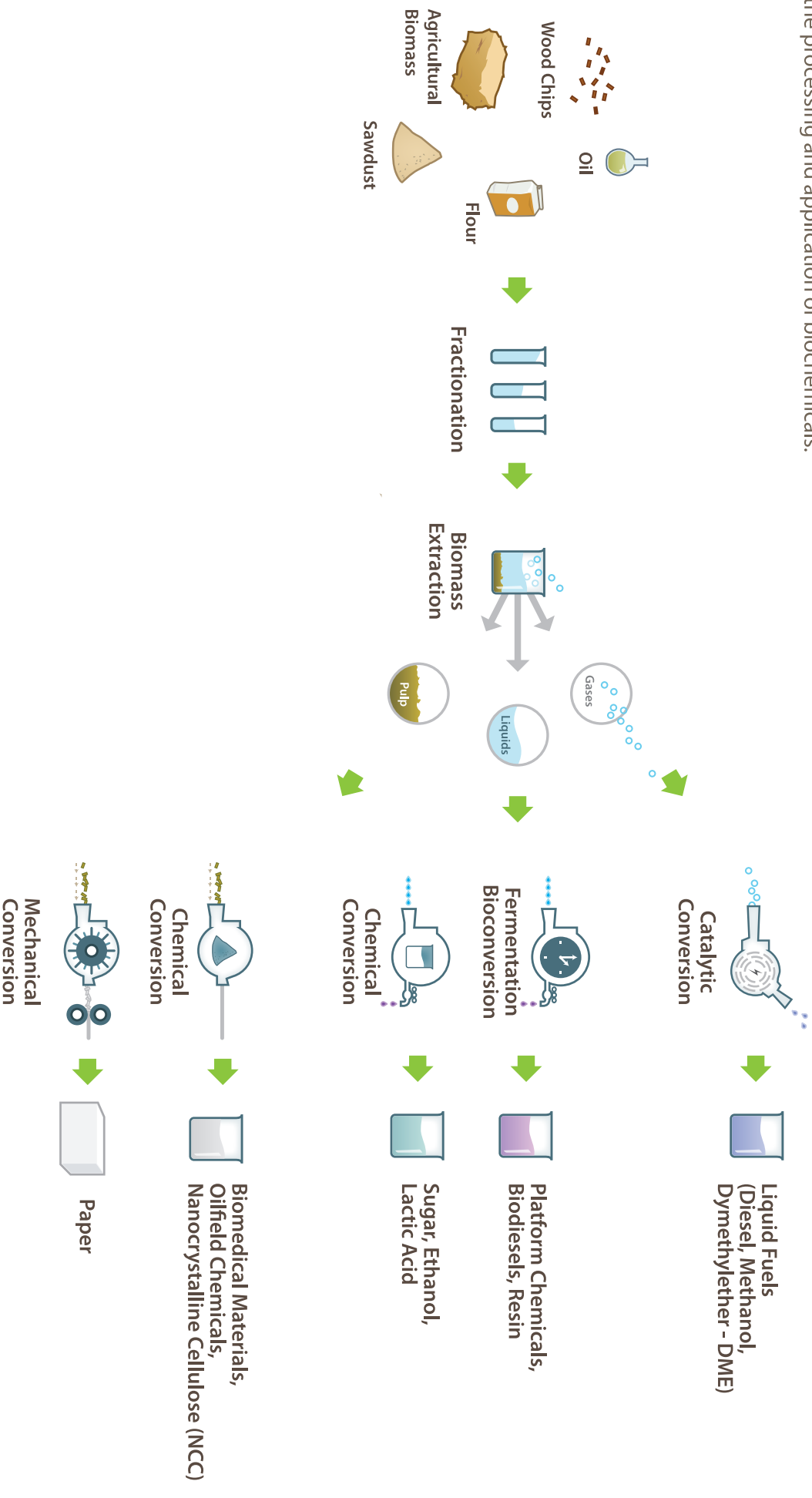
### Facilitating Growth of Biochemicals

Agriculture and forestry biomass is an excellent and sustainable chemical source because it is readily renewable, potentially biodegradable and economical. With demand increasing for biochemicals, ABDC is committed to facilitating growth of this industry by providing opportunities for research and development and the application and scale up production of biochemicals.

# Industrial Biochemical Processing

Biochemical processing leads to the creation of bioplastics, polymers, coatings, insulation and a whole array of high performance biochemicals that can be derived from plants. ABDC technology creates possibilities for the processing and application of biochemicals.

## Current Possibilities





## Bioproduct Solutions

The Alberta Biomaterials Development Centre (ABDC) provides clients with product development and commercialization expertise for the creation of innovative bioproducts. Product development expertise ranges from quality assurance, to plastics and composite material blending, extrusion and injection molding design. ABDC experts address the areas of structural and non-structural building materials, material characteristic profiling and cellulose fibre research. This enables the commercialization of high-performance sustainable bioproducts that advance current industry standards.

## Services & Technology

- Biocomposite development
- Waste material research
- Panel manufacturing pilot plant
- Fibre processing pilot plant
- Preheater and microwave technology
- Steam injection pressing
- Biopolymers
- Pulp and paper processing pilot plant



## From Concept to Commercialization

Alberta is a leader in biomaterial development and is positioned to enable businesses to excel in innovation with its abundant crop and forestry resources, technological advancements and oil and gas industries. Using agriculture and forestry biomass, ABDC experts provide tailored approaches for the commercialization of biomaterials.

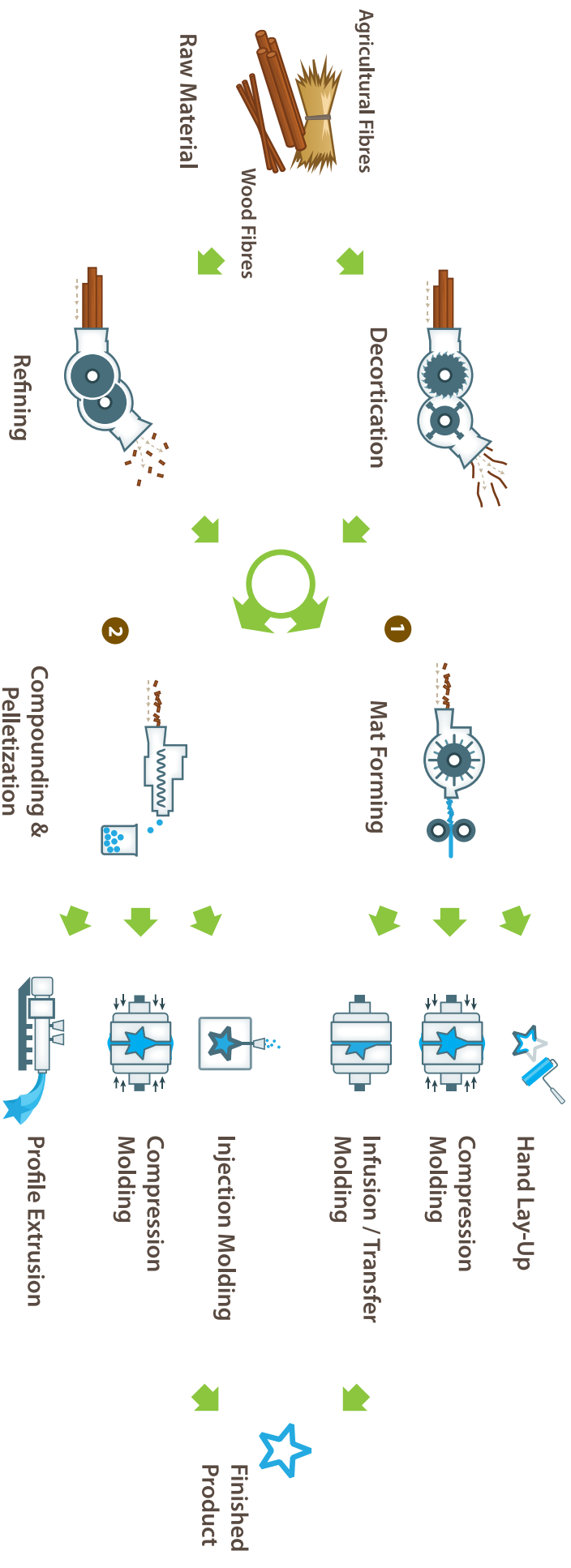
## Innovative Approaches and Products

ABDC drives and transforms the development of biomaterials by linking research and development activities to rapidly commercialize new bioproducts. This approach enables businesses to develop and provide innovative green products for a better quality of life.

# Natural Fibre Reinforced Plastics

Biocomposites are made with natural fibres and resin to create green products. ABDC's biocomposite team has the technology and expertise to help demonstrate and commercialize high performance biocomposite products.

- 1 Thermoset Biocomposites
- 2 Thermoplastic Biocomposites



## Innovative Biofibre Processing

The Alberta Biomaterials Development Centre (ABDC) provides clients with world-class fibre processing facilities, enabling businesses to catalyze the biomaterial economy. With the capacity to process a wide variety of wood and agri-fibre at the pre commercial level, ABDC delivers consistent feedstock quantity and quality to clients.

### Services & Technology

- Largest biofibre processing pilot plant in North America
- Biofibre characterization
- Biomass fibre pelletization and densification
- Wet mechanical processing
- Chemical processing and pulp technology
- Extrusion technology



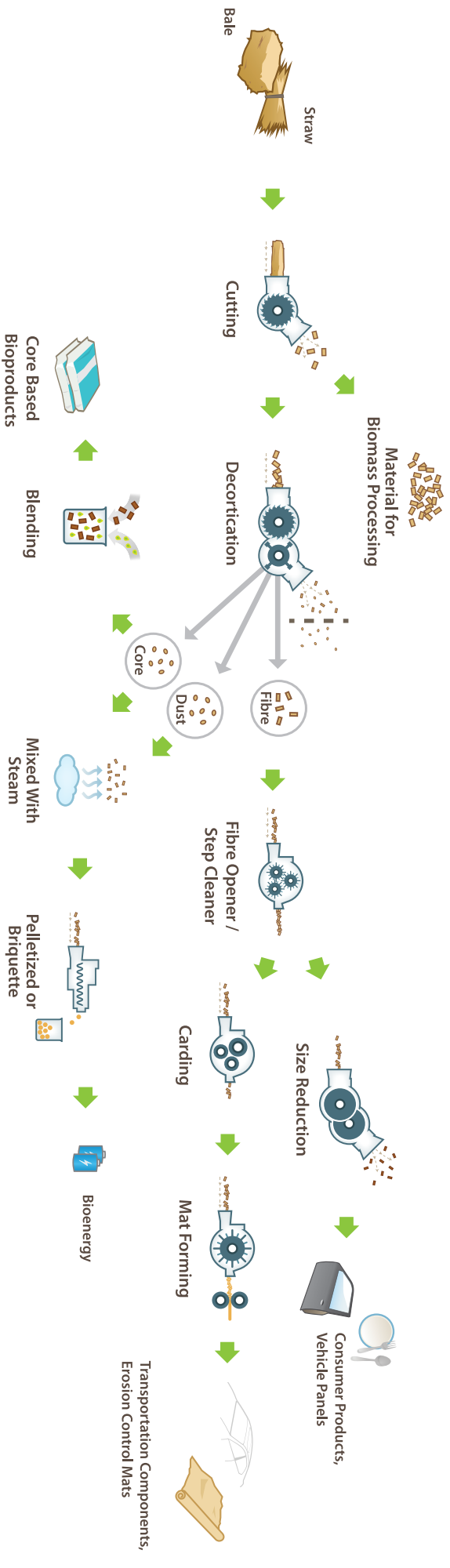
### Centre for Innovation

The largest plant to process biofibre and ABDC's dedicated fibre processing team in North America is located in Vegreville, Alberta. This team collaborates with world-class research institutes to provide services that enhance business success in biomaterial development.

ABDC is committed to providing clients with scientific and engineering services related to the design, scale-up and development of fibre processing to drive the biomaterial economy. ABDC can facilitate the transition from concept to commercialization, and provide an integrated approach to innovation and the realization of opportunities.

# Dry Fibre Processing

Starting with agricultural feedstock, ABDC's dry fibre processing system prepares fibres to be used in a variety of products from fibre cement to animal bedding and biocomposites. ABDC's fibre processing team can assist you with the processing fibres to meet your needs.



## Sustainable Options With Biomass & Biofibre

The Alberta Biomaterials Development Centre (ABDC) delivers biomass and biofibre research with innovative methods by partnering with national research institutes, agriculture businesses and research experts. ABDC provides access to world-class agriculture and forestry researchers and crop research centres throughout Alberta.

Alberta agriculture and forestry producers are essential to the success of ABDC. A focus on biomass research and optimization enables producers to take advantage of growing opportunities and provide end users with the right product. These biomass producers are providing the performance goods for the future, enhancing conservation of our natural resources and contributing to a sustainable economy.



### Services & Technology

- Plant breeding
- Crop agronomy
- Biomass optimization
- Species selection
- Quality assessments
- Biomass inventory assessments



### Biomass - Driving the Biomaterial Economy

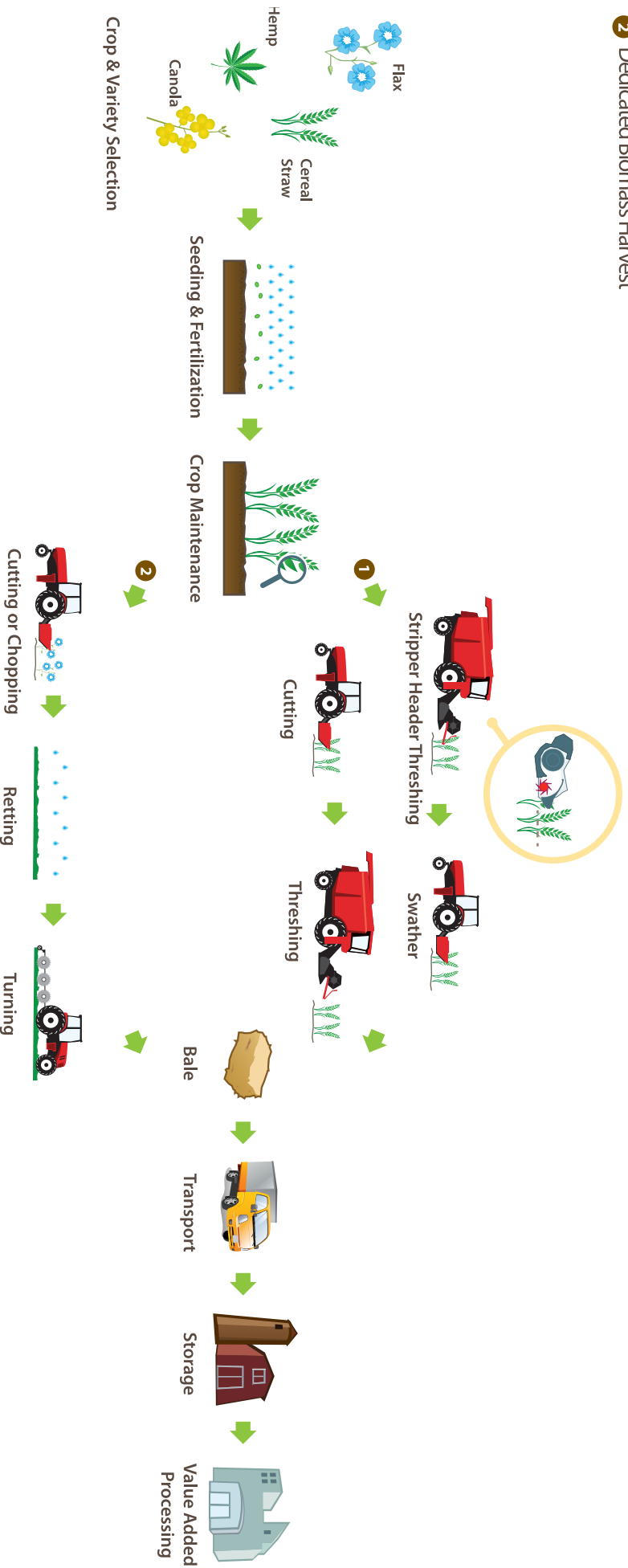
ABDC has the capability to produce, process and create products from almost any crop including: industrial hemp, flax, cereal crops, grasses and wood fibres. Our experts can improve plant performance to enhance end use and improve the quality and quantity of harvested fibres.

The nature of biomass influences production cost, energy use and environmental impact. ABDC specializes in understanding that distinctive and quality biomass is essential to the biomaterial industry, and continues to research new technology and processes that enrich biomass characteristics.

# Feedstock

Feedstock quality influences bioproduct characteristics. ABDC experts are dedicated to researching advanced methods for crop seeding, maintenance and harvesting to ensure industry has the most advanced information available and a consistent and economic product for secondary manufacturing.

- 1** Seed & Crop Residue Harvest
- 2** Dedicated Biomass Harvest



## **TAB 3**

**HEALTH CONCERNS, LAWS, REGULATIONS AND LICENSING**





## Health Concerns

### Frequently Asked Questions

- [General Questions](#)
- [About Applications](#)
- [About Laws and Regulations](#)
- [About Industrial Hemp Resources](#)

### General Questions

- [NEW - What is the relationship between the \*Controlled Drugs and Substances Act \(CDSA\)\* and the \*Industrial Hemp Regulations \(IHR\)\*?](#)
- [What is the Industrial Hemp Regulation Program?](#)
- [NEW - What is industrial hemp?](#)
- [NEW - What is "production" of industrial hemp?](#)
- [Why did the government change its laws to allow the growing of hemp?](#)
- [When was the first licence issued to permit the growth of industrial hemp for commercial purposes?](#)
- [What are the potential uses?](#)
- [Is it easy to grow?](#)
- [How is the program doing?](#)

### About Applications

- [If I want a licence, when should I apply?](#)
- [Where can I get an application form?](#)
- [Where do I send my application?](#)
- [What documents do I need to include with my application?](#)
- [NEW - Who needs a criminal record check?](#)
- [How long are licences and permits valid?](#)
- [Where can I get more information about program requirements?](#)
- [What should I do if I find errors in the Health Canada documentation?](#)

### About Laws and Regulations

- [NEW - What can I do with a licence or an authorization under the \*Industrial Hemp Regulations\*?](#)
- [NEW - What activities can I do with industrial hemp stalks?](#)
- [NEW - What activities are not permitted under the IHR?](#)
- [NEW - What activities are permitted without the need for a licence or authorization?](#)
- [NEW - What do we mean by "wholesale"?](#)
- [NEW - What do we mean by "retail sale"?](#)
- [NEW - Do the \*Industrial Hemp Regulations\* impose restrictions on the advertising of industrial hemp?](#)
- [What varieties of industrial hemp are acceptable for production in Canada?](#)
- [How do I get new varieties approved and placed on the List of Approved Cultivars?](#)
- [Can I only cultivate industrial hemp from pedigreed status seeds?](#)
- [Why was hemp illegal to cultivate in Canada in the past?](#)

### About Industrial Hemp Resources

- [NEW - When is THC testing required under the IHR?](#)
- [Where can I find processors and labs?](#)
- [Where can I find suppliers of industrial hemp?](#)
- [Where can I find information on other departments that deal with industrial hemp?](#)
- [Who do I contact regarding industrial hemp in cosmetics?](#)
- [Who do I contact regarding industrial hemp in food products?](#)
- [Who do I contact for issues related to importing or exporting of industrial hemp?](#)

- [How do I become an authorized sampler?](#)

## General Questions

### **NEW - What is the relationship between the *Controlled Drugs and Substances Act (CDSA)* and the *Industrial Hemp Regulations (IHR)*?**

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The *Controlled Drugs and Substances Act (CDSA)* prohibits certain activities with controlled substances. Regulations under the CDSA, such as the *Industrial Hemp Regulations (IHR)*, authorize certain activities with specific controlled substances.

More specifically, Cannabis is a controlled substance under the CDSA. Possession, trafficking, import, export and production of all varieties of Cannabis regardless of the tetrahydrocannabinol (tetrahydro-6,6,9-trimethyl-3-pentyl-6H-dibenzo[b,d]pyran-1-ol) content are prohibited unless authorized according to regulations or an exemption. The *Industrial Hemp Regulations* enable persons/companies to cultivate and process industrial hemp for commercial purposes through a licensing system.

### **What is the Industrial Hemp Regulation Program?**

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The Industrial Hemp Regulation Program permits Canadian farmers to grow low-TCH cannabis for industrial use, under controlled circumstances. This program administers the regulatory approval process for the commercial production of industrial hemp. It is comprised of a system of licences, permits and authorizations for all persons in Canada engaged in the cultivation, distribution, importation, exportation, and processing of industrial hemp. The program started on March 12, 1998, when the [\*Industrial Hemp Regulations\*](#) came into effect.

### **NEW - What is industrial hemp?**

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In the *Industrial Hemp Regulations*, industrial hemp includes Cannabis plants and plant parts, of any variety, that contains 0.3% tetrahydrocannabinol (THC) or less in the leaves and flowering heads.

Industrial hemp also includes the derivatives of industrial hemp plants and plant parts. These do not include the flowering parts or the leaves.

Examples of derivatives that are considered industrial hemp include: hemp seed oil (oil derived from seed or grain) and hemp flour.

Industrial hemp does **not** include:

- Non-viable Cannabis seeds, except for their derivatives. While the derivatives of non-viable Cannabis seeds are considered to be industrial hemp, the non-viable seeds themselves are not industrial hemp;
- Mature Cannabis stalks, when those stalks are stripped of their leaves, flowers, seeds, and branches;
- Fiber derived from such mature Cannabis stalks.

Most activities with non-viable cannabis seeds, with bare mature cannabis stalks (without leaves, flowers, seeds, and branches), and with fiber derived from bare mature cannabis stalks, are not controlled under the CDSA. As such, they do not require authorization.

### **NEW - What is "production" of industrial hemp?**

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Cultivating, propagating and/or harvesting industrial hemp are included in production.

Industrial hemp production includes obtaining industrial hemp - e.g. viable grain or seed or their derivatives - by any method or process, including manufacturing or using any means to change the chemical or physical properties of industrial hemp and including also cultivating, propagating or harvesting industrial hemp.

Industrial hemp production is an activity that is authorized by a licence issued under the IHR, subject to the terms of the licence and to the regulations.

However, it is important to note that the production of derivatives or products made from whole industrial hemp plants, including sprouts, or the leaves, flowers or bracts of those plants, cannot be authorized by a licence issued under the IHR. Most activities with whole industrial hemp plants, including sprouts, or with the leaves, flowers or bracts of the plant, fall outside of the application of the IHR. These activities are controlled under the CDSA and are not authorized under the IHR.

## **Why did the government change its laws to allow the growing of hemp?**

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In the 1980s and 1990s, there was increased interest in the cultivation of industrial hemp as a potential source of new jobs in the agricultural and industrial sectors. As well, there was an increased need to develop alternative sources of fibre. Research conducted between 1994 and 1998 showed it could be successfully grown in Canada as a separate entity from cannabis (marijuana). With the demand and encouraging research findings, Health Canada chose to give the agricultural and industrial sectors the opportunity to grow and exploit industrial hemp in a controlled fashion. Laws were amended to allow for the cultivation of industrial hemp.

## **When was the first licence issued to permit the growth of industrial hemp for commercial purposes?**

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Although the growth of industrial hemp crops was previously permitted for scientific research purposes, the first licence to grow industrial hemp for commercial purposes was issued in May 1998.

## **What are the potential uses?**

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Fibre from stalks can be used in making paper, textiles, rope or twine, and construction materials. Grain from industrial hemp can be used in food products, cosmetics, plastics and fuel.

## **Is it easy to grow?**

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In other countries, industrial hemp has proven to be a hardy, fast growing, resilient and high yield crop. In Canada, industrial hemp has shown good potential as an alternative to be included in rotation with other, more traditional crops. Its short growth period of 85-120 days makes it well suited for cultivation in many parts of Canada. If planted at the proper time, it reportedly suppresses most weeds. Insect and disease problems must be managed like any other crop.

## **How is the program doing?**

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To get an overview of the Industrial Hemp Program and its progress in Canada, visit the page called [Statistics, Reports & Fact Sheets on Hemp](#). It has up to date reports and fact sheets on the program and its activities.

## **About Applications**

### **If I want a licence, when should I apply?**

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Licences expire in the calendar year in which they are issued. For cultivators, it is recommended that you submit your application for a cultivation licence 5 to 6 months prior to the growing season. You may apply for a licence as early as mid-November for the next growing season. To help ensure that applications are processed in a timely manner, please ensure that all of the required information is provided.

### **Where can I get an application form?**

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You can download most of the documentation you require from this website, or obtain copies from Health Canada's Regional Offices or the [Office of Controlled Substances](#). Look under the [Contact section](#) of this website for the contact information of the Industrial Hemp Regulation Program.

### **Where do I send my application?**

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Your application should be sent to:

Office of Controlled Substances  
Industrial Hemp Regulations Program  
161 Goldenrod Drwy  
AL 0300B  
Ottawa ON K1A 0K9

### **What documents do I need to include with my application?**

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You must include the following documents and information:

1. Original police criminal record check(s)
2. Global Positioning System (GPS) coordinates (for those cultivating)
3. Original signatures on all documents
4. Appropriate schedules with the industrial hemp licence application
5. All supporting documents (from the Canadian Seed Growers' Association or Canadian Food Inspection Agency if required). Please note that a faxed application is enough to begin the application process, but the originals are needed before your licence can be issued.

## **NEW - Who needs a criminal record check?**

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The application for a licence or authorization under the IHR must include documents about the criminal record of the following persons:

- The applicant for the license or authorization;
- Each officer and director, in the case of a corporation or a cooperative that is seeking a license or authorization;
- Each partner, in the case of a partnership that is seeking a license or authorization.

A document issued by a Canadian police force will have to be provided for each of these persons, setting out for the previous 10 years the person's criminal record in respect of any designated drug offence.

In addition, for officers, directors or partners who ordinarily reside in a country other than Canada, a document issued by a police force of that foreign country must be submitted, setting out their criminal record for the previous 10 years in respect of any offence that would constitute a designated drug offence if committed in Canada.

These documents must also be submitted when adding or replacing an officer, director or partner.

## **How long are licences and permits valid?**

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Licences are issued on a calendar year basis and expire on the December 31st immediately following the issuance of the licence or authorization, unless otherwise specified. Permits are valid for three months. Licence holders must reapply each year providing information that is current at the time of the application. The Office of Controlled Substances will accept applications as early as mid-November for licensing in the following year to ensure persons requiring a licence or authorization for carry-over material have an opportunity to obtain the necessary documents.

## **Where can I get more information about program requirements?**

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The document [Industrial Hemp Regulations](#) describes the amendments to the [Controlled Drugs and Substances Act](#). It also describes in detail the application process, causes of licence revocation, record keeping procedures, security measures, and so on. Consult this document when you want specific details of the amendments to the *Act*. (To view these documents click on any of the underlined titles mentioned here.)

If you're interested in the background to the development of the *Industrial Hemp Regulations*, you may wish to read the Regulatory Impact Analysis Statement which describes regulations in other countries, benefits and costs to interested parties and alternative models which were considered before the regulations were put in place in 1998.

[The Industrial Hemp Technical Manual](#) will guide you through the sampling and testing methodology for the determination of delta 9 - tetrahydrocannabinol (THC) in industrial hemp. This is useful to samplers, farmers, and those interested in THC and/or viability testing. If you are interested in how the THC determination is made you may wish to consult the Gas Chromatographic Determination of Tetrahydrocannabinol in Cannabis.

The form for [Reporting the results of Delta 9 THC testing](#) is found here and is mandatory for those cultivating industrial hemp.

## **What should I do if I find errors in the Health Canada documentation?**

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If you find errors in our documentation, please use the Identification of Errors form and return it to us by e-mail at [hemp@hc-sc.gc.ca](mailto:hemp@hc-sc.gc.ca) or by fax: 613-960-1740. You may also call us at 613-954-6524.

## **About Laws and Regulations**

## **NEW - What can I do with a licence or an authorization under the *Industrial Hemp Regulations*?**

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A licence issued under the IHR specifies the activities that are permitted by that licence, subject to the requirements of the IHR and to specific exclusions (see "[What activities are not permitted under the IHR?](#)"). These activities could include:

- Import or export of industrial hemp. Note that in addition to the licence, importers and exporters need a permit for each shipment of hemp that they import or export. Other customs documentation may be required;
- Production of industrial hemp;
- Sale or provision of industrial hemp.

A person who holds a licence is also permitted to engage in additional activities - possess, transport, send, deliver, and (if the licence permits sale or provision) offer to sell or to provide - with industrial hemp, to the extent necessary to conduct a licensed activity.

A person who does not hold a licence may possess, transport, send or deliver industrial hemp, or offer to do so, if they hold the appropriate authorization issued under the IHR.

## **NEW - What activities can I do with industrial hemp stalks?**

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Mature industrial hemp stalks, when the leaves, flowers, seeds and branches are removed, are excluded from the CDSA. The fibers derived from those stalks are also excluded from the CDSA. This means that such stalks and fiber can be imported, sold, possessed, or used to make products, such as rope or fabric, without a licence, permit, or other authorization.

## **NEW - What activities are not permitted under the IHR?**

---

The IHR do not apply to certain activities with industrial hemp. These activities are controlled under the CDSA and are not authorized under the IHR. These activities are:

- Certain activities with whole industrial hemp plants, including sprouts, or the leaves, flowers or bracts of those plants. These activities are: importation, exportation, sale or provision;
- Certain activities with any derivative or product made from whole industrial hemp plants, including sprouts, or the leaves, flowers or bracts of those plants. The activities are: importation, exportation, sale, provision or production;
- Certain activities with any derivative of seed, viable grain or non-viable Cannabis seed, or product made from that derivative, if the derivative or product contains more than 10 microgram/gram THC. The activities are: importation, exportation, sale or provision.

Other restrictions on permitted activities are specified in the IHR and in each licence.

## **NEW - What activities are permitted without the need for a licence or authorization?**

---

There are activities with industrial hemp to which the CDSA and the IHR do not apply, meaning that they are permitted for anyone without the need for a licence or authorization.

Non-viable Cannabis seeds, bare mature stalks and the fiber derived from these stalks are excluded from the CDSA and from the IHR. This means that these seeds, stalks and fibers can be imported, sold, or used to make products, such as food or rope, without requiring any licence, permit or authorization.

In addition, when certain conditions are met, a person may import, export, sell (at wholesale or retail), provide, possess, transport, send and deliver derivatives of industrial hemp seed, viable grain or non-viable Cannabis seed, or products made from such derivatives, without the need for a licence or authorization under the IHR. The conditions to be met include that the derivative or product:

- Must contain no more than 10 µg/g THC;
- Must not have been made from whole industrial hemp plants, including sprouts, or the leaves, flowers, or bracts of those plants;
- In the case of the wholesale sale of a derivative, the package containing the derivative must be labelled "Contains 10 µg/g THC or less - Contient au plus 10 µg/g de THC".

Note that producing (e.g., cultivating, harvesting) industrial hemp in accordance with the IHR always requires a licence.

## **NEW - What do we mean by "wholesale"?**

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Wholesale includes selling goods in large quantities so that they can be retailed by others (e.g., selling crates of hemp seed oil to retail stores).

## **NEW - What do we mean by "retail sale"?**

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Retail sale includes selling products in small quantities to the public for use or consumption (e.g., selling hemp seed oil to individual Canadians).

## **NEW - Do the *Industrial Hemp Regulations* impose restrictions on the advertising of industrial hemp?**

---

Yes, they do. The restriction is that no person can advertise industrial hemp, its derivatives, or any product made from those derivatives to imply that it is psychoactive meaning that it could affect the mind of the behavior of the person consuming it.

## **What varieties of industrial hemp are acceptable for production in Canada?**

---

Only seeds of approved industrial hemp varieties, which have a delta-9 tetrahydrocannabinol (THC) level lower than 0.3% in their leaves and flowering heads, can be planted. Please click [here](#) for a List of Approved Cultivars.

## **How do I get my varieties approved and placed on the List of Approved Cultivars?**

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In order to be included on the List of Approved Cultivars, a variety must fulfill two conditions. First, it must be recognized as being a true variety (distinct, uniform and stable) by a responsible authority, such as the OECD Seed Scheme, the Canadian Food Inspection Agency's Variety Registration Program, or the Canadian Seed Growers Association. Application must be made directly to the appropriate agency for this purpose. Once the variety has been recognized as a true variety, the plant breeder may submit a request to the Office of Controlled Substances to have it included on the list. Evidence must be provided with the request that the variety is recognized by one of the bodies mentioned and that it will consistently produce plants with a THC content of 0.3% THC or less. This request must be submitted before the Interdepartmental Working Group meets in December of each year to evaluate varietal performance and recommend to the OCS the varieties to be included on or removed from the List of Approved Cultivars.

## **Can I only cultivate industrial hemp from pedigreed status seeds?**

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Yes. Since 2000, Section 14 (3) of the *Industrial Hemp Regulations* states: "On and after January 1, 2000, an approved cultivar referred to in subsection (1) must be of a pedigreed status, as defined in subsection 2(2) of the *Seeds Regulations*."

**Pedigreed status**, defined in subsection 2(2) of the *Seeds Regulations*, with respect to seed, means seed that is of foundation status, registered status, or certified status, or seed that is approved by the Canadian Seed Growers' Association (CSGA) as being breeder seed or select seed. Foundation, registered, and certified status are further defined for seed that is produced in Canada or elsewhere. Seed that is not produced in Canada must meet the standards for varietal purity established by an official certifying agency and be approved by the CSGA.

There are two official systems that are currently recognized to produce seed of pedigreed status:

1. **The Association of American Seed Control Officials (AASCO):** This system is used in Canada and in the USA, and other countries are now interested in becoming members. Canada is represented by the Canadian Food Inspection Agency and by the Canadian Seed Growers' Association—both are members of the Association. The Canadian Seed Growers' Association is recognized by the *Seeds Act* as being the entity responsible for establishing and enforcing standards for maintenance of genetic purity during seed multiplication.
2. **The Organization for Economic Cooperation and Development (OECD) Seed Scheme** is used mainly in European countries, but there are also numerous other member countries. Canada is a member and is represented by the Canadian Food Inspection Agency. The *Seeds Act* states that imported seed must be recognized by the Canadian Seed Growers Association as being of pedigreed status. However, the CSGA does recognize the status of seed originating from the OECD seed scheme. The classification of pedigreed status under the OECD scheme is different (Pre-Basic, Basic, Certified), but equivalent.

Therefore, if someone wants to import or use seed from a particular country that is not recognized by the OECD scheme, officials of that country would have to obtain OECD recognition for their seed certification program and become a member of the OECD Seed Scheme.

### **Why was hemp illegal to cultivate in Canada in the past?**

Hemp production was prohibited in Canada in 1938 under the *Opium and Narcotic Drug Act* as part of a combined international battle against the abuse of THC and other controlled substances. Although the prohibition was relaxed briefly during World War II when traditional sources of fibres were unavailable, the prohibition was renewed after the war. Since 1961, Health Canada has allowed limited production in Canada for scientific research purposes.

### **About Industrial Hemp Resources**

#### **NEW - When is THC testing required under the IHR?**

Persons licensed to cultivate industrial hemp are required to have their crops sampled and tested for the THC concentration, unless the variety being cultivated is an exempted cultivar listed on Health Canada's List of Approved Cultivars (LOAC).

The sampling and testing is to be done in accordance with the Industrial Hemp Technical Manual. The sampling and testing starts when the seed begins to mature (i.e., when the first seeds of 50% of the plants are resistant to compression).

#### **Where can I find processors and labs?**

To find processors, laboratories and suppliers of industrial hemp, please refer to the industry lists of licensed services.

Field sampling of industrial hemp crops is an authorized activity. Qualified individuals go into the fields to remove and prepare samples prior to sending them to laboratories licensed to perform THC testing of industrial hemp.

There is also a list of authorized laboratories licensed to perform viability testing. This testing is a requirement if you are rendering grain non-viable.

The lists mentioned above are updated frequently as new licensees qualify.

#### **Where can I find suppliers of industrial hemp?**

#### **List of Approved Cultivars**

Section 39(1) of the *Industrial Hemp Regulations* (IHR), allows a variety of industrial hemp to be designated as an approved cultivar, provided that the variety will produce a plant that will contain 0.3% THC or less in its leaves and flowering heads. Section 39(2) also permits the Minister to exempt an approved cultivar from THC testing. Section 8(1)(g)(i) of the IHR requires that a person who applies for a licence or authorization indicates the approved cultivar that will be sown. The cultivar indicated must be on the list of hemp varieties approved by Health Canada.

Each year, the Interdepartmental Working Group on Hemp Cultivars with participants from OCS (Licences and Permits Division, Regulatory Policy Division), the Canadian Food Inspection Agency-Seed Section, the Canadian Seed Growers' Association, Agriculture and Agri-Food Canada, and the Royal Canadian Mounted Police would review THC test data and recommend the inclusion and exemption of hemp varieties on the List of Approved Cultivars (LOAC) for the current growing season.

The LOAC is published on an annual basis. This list contains information on the varieties of industrial hemp that may be used for commercial cultivation in Canada, and the testing requirements for each variety.

- [List of Approved Cultivars for the 2016 growing season](#)

#### **Where can I find information on other departments that deal with industrial hemp?**

The best place to start is by consulting [The Industrial Hemp Licence Contact List](#). It will provide you with the addresses of our bureau and of the provincial drug inspectors. As well, the page Industry Links lists the websites of other departments, associations and organizations that are implicated in the support, commerce and control of industrial hemp at national and provincial levels.

Another important source of information is the [Canadian Food Inspection Agency](#). If you are looking for information on how to become an approved conditioner, an authorized importer establishment, an authorized seed establishment, or an authorized facility for bulk storage, ask for Louise Duke in Ottawa at 613-225-2342. If you want more information on the *Feeds Act* and Regulations, ask for Lynne Underhill in Ottawa at 613-225-2342.

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### **Who do I contact regarding industrial hemp in cosmetics?**

For [information on the use of industrial hemp in cosmetics and other personal care products](#), please refer to the following Health Canada website:

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### **Who do I contact regarding industrial hemp in food products?**

For [information on the use of industrial hemp in food](#), please refer to the following Health Canada website:

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### **Who should I contact for issues related to importing or exporting of industrial hemp?**

Contact the [Canadian Customs and Revenue Agency](#) office nearest you. To obtain the phone number of the nearest office, visit the Canada Customs and [Revenue Agency](#) website.

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### **How do I become an authorized sampler?**

To become an authorized sampler for sampling commercial production of industrial hemp, you must either be recognized by the CSGA or the CFIA for the purposes of pedigreed seed crop inspection, or be a member of a professional agrologists association. If you fulfill one of these conditions, you may apply to the OCS for authorization. A special application form is available on our website for this purpose. For more information regarding professional agrologists, one association is the [Canadian Consulting Agrologists Association \(CCAA\)](#) at 403-686-8407.

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Date Modified: 2016-04-27





## Notice to Industry

Health Canada has issued a Section 56, *Controlled Drugs and Substances Act* exemption to producers of Industrial Hemp in an effort to simplify the licence application process for the 2017 growing season.

### **Background:**

On November 21, 2016, Health Canada issued a *Section 56 Class Exemption in Relation to the Industrial Hemp Regulations* (Exemption). The Exemption better aligns regulation of industrial hemp with the demonstrated low public health and safety risk of the crop. The Exemption is an interim measure to simplify the licence application process as the Government moves forward with its commitment to legalize, strictly regulate, and restrict access to marijuana.

Please refer to the *Section 56 Class Exemption in Relation to the Industrial Hemp Regulations* for more details, including the terms and conditions of the Exemption.

### **What does this Exemption mean?**

Health Canada has reduced and simplified the licencing and regulatory requirements placed on growers of Industrial Hemp. These changes include:

- A cultivation licence will be issued without the need to pre-identify planting sites.
  - Industrial Hemp cultivators will be able to choose planting sites at the time of planting, and send a “Notification of Cultivation of Industrial Hemp” to the Office of Controlled Substances within 15 days of seeding.
- There is no longer a minimum acreage requirement for Industrial Hemp cultivation.
- One Industrial Hemp licence will cover all cultivation sites and activities, reducing the number of licences and licence amendments required.
- The requirement for THC testing for most crops (grain and fiber) has been eliminated;
  - A THC testing requirement remains for cultivators of Industrial Hemp for pedigreed seed or for inclusion of an Industrial Hemp variety on the List of Approved Cultivars (LOAC). THC test results must still be submitted by November 15 of the year the test was performed, unless the cultivar is exempted from the LOAC.
- The expiry date of a licence has been extended until March of the following year to allow for the sale and purchasing of products grown in the previous year.
- Criminal record checks are now valid for one year from the date they were issued.
- Less information will be required regarding registration or memberships. Instead, applicants will provide a simple attestation rather than submit proof.
- Applications will be accepted electronically via email.

Licence holders must comply with the terms and conditions of the Exemption and of the licence.

### **Who will this Exemption affect?**

An Industrial Hemp licence is required for all persons conducting activities with Industrial Hemp. This Exemption applies to anyone who wishes to obtain a licence to import, export, possess, cultivate, produce, process, and distribute (sell/provide) Industrial Hemp.

Persons who may require a licence include:

- Producers of seed, grain, fibre
- Plant breeders
- Sale and distributors
- Processors
- Testers for viability of grain
- Importers and exporters

The application process for Industrial Hemp crop samplers and researchers remains the same.

### **What forms need to be submitted to obtain a licence?**

The following forms are attached:

- Application for an Industrial Hemp Licence
- Notification of Cultivation of Industrial Hemp
- Refer to Appendix 1 and 2 for additional information on the licencing process and requirements under this Exemption

Please note that applications that have already been received by the Office of Controlled Substances will be processed in accordance with this Exemption. There is no need to re-submit a new application.

Applications may be submitted by email to [hemp@hc-sc.gc.ca](mailto:hemp@hc-sc.gc.ca) or by mail to:

Industrial Hemp Section  
Office of Controlled Substances  
Health Canada  
161 Goldenrod Drwy  
AL 0300B  
Ottawa ON K1A 0K9

Note: In order to avoid delays in processing applications, please ensure that complete applications are submitted. If a complete application is not submitted, the application will be immediately returned.

**Questions?**







Should you have any questions, please do not hesitate to contact us at [hemp@hc-sc.gc.ca](mailto:hemp@hc-sc.gc.ca) or call us at 613-954-7799.

Sincerely,

Industrial Hemp Section  
Office of Controlled Substances

**APPENDIX 1: STEP BY STEP PROCESS TO OBTAIN AN INDUSTRIAL HEMP LICENCE FOR CULTIVATION**

This step by step process is to assist in the application process for an industrial hemp licence.

STEPS:	TIMELINE:
1. Submit a complete application to possess, cultivate, produce, process, distribute, import and/or export industrial hemp to the Office of Controlled Substances.  	Beginning in November
<ul style="list-style-type: none"> <li>• Health Canada prioritizes the screening and reviewing of applications. Incomplete applications will be immediately returned.</li> <li>• Licence issued covering activities for which an application was submitted.</li> </ul> 	November – April
2. Licence holder to begin activities with industrial hemp after licence issued.  	After licence is issued
3. Licence holder submits the “Notification of Cultivation of Industrial Hemp” form to the Office of Controlled Substances.  	Within 15 days after seeding
<ul style="list-style-type: none"> <li>• Health Canada registers cultivation sites.</li> </ul> 	----
4. Licence holder cultivating seed submit THC results.  	November 15 of the year the test was performed
<ul style="list-style-type: none"> <li>• Health Canada analyses submitted THC results for consideration on the LOAC.</li> </ul>	December

**APPENDIX 2: GENERAL REQUIREMENTS TO OBTAIN A LICENCE UNDER THE SECTION 56 EXEMPTION IN RELATION TO ACTIVITIES WITH INDUSTRIAL HEMP** (Please consult the *Section 56 Exemption in Relation to the Industrial Hemp Regulations* for more details.)

	ELIGIBILITY	WHAT TO SUBMIT?	WHEN TO SUBMIT?
<b>BEFORE OBTAINING A LICENCE:</b>			
<b>Step 1: Submit Application</b>	<ul style="list-style-type: none"> <li>Applicant must reside in Canada or at least one person of a partnership must reside in Canada</li> <li>In the case of a corporation or cooperative, the head office must be located in Canada</li> <li>At least 18 years of age or older</li> <li>No drug offence that occurred within the previous 10 years, or if residing in a country outside of Canada, an offence that if committed in Canada would constitute a designated drug offence</li> <li>All required information on the application is provided</li> </ul>	<ul style="list-style-type: none"> <li>Complete and signed application form for all proposed activities (possess, produce, process, distribute, import and/or export)</li> <li>Criminal Record Check</li> <li>In the case of corporation, cooperative, or partnership, a copy of certificate of incorporation or a copy of a document registered with a province, or evidence of partnership agreement</li> <li>Submission of GPS coordinates and maps are <u>no longer</u> required</li> </ul>	Before starting activities
<b>AFTER OBTAINING A LICENCE:</b>			
<b>Step 2: Submit “Notification of Cultivation of Industrial Hemp” form (cultivation only)</b>	<ul style="list-style-type: none"> <li>Persons must hold a licence for cultivation</li> <li>Location of cultivation sites submitted within 15 days after seeding</li> </ul>	<ul style="list-style-type: none"> <li>Notification of Cultivation of Industrial Hemp</li> <li>GPS coordinates</li> <li>Number of hectares seeded</li> <li>Other notifications as per Section 11 of the IHR</li> </ul>	Within 15 days after seeding
<b>AMENDING A LICENCE:</b>			
<b>Step 3: Submit “Application for Amendment to Industrial Hemp Licence” form</b>	<ul style="list-style-type: none"> <li>If changes must be made to the existing licence (e.g., activity, form of hemp, address on the licence, approved cultivar)</li> </ul>	<ul style="list-style-type: none"> <li>Complete application form for proposed change(s)</li> <li>Original licence must be returned</li> </ul>	Before implementation of change
<b>Step 4: Submit THC test results (cultivation of seed only)</b>	<ul style="list-style-type: none"> <li>Persons must hold a licence for cultivation of pedigreed seed</li> <li>If a plant breeder, persons must hold a licence for breeding seed</li> </ul>	<ul style="list-style-type: none"> <li>Copy of THC results from a competent laboratory</li> </ul>	November 15 of the year the test is performed





### NOTIFICATION OF CULTIVATION OF INDUSTRIAL HEMP

This is further to the *Section 56 Class Exemption in Relation to the Industrial Hemp Regulations* issued by Health Canada on November 21, 2016.

Under the Exemption, a person who holds a licence to cultivate industrial hemp shall notify the Office of Controlled Substances within **15** days after seeding takes place (for each seeded area), of the following information:

- the number of hectares to be cultivated for seed or viable grain and the number of hectares to be cultivated for fibre;
- the Global Positioning System coordinates to situate each site cultivated;
- if any part of the site is to be cultivated for seed or viable grain, the Global Positioning System coordinates to situate that part of the site; and
- if not already provided, a statement that the applicant is the owner of the land to be used for the cultivation or a statement, signed by the owner of the land, indicating that he or she has consented to that use.

Notification within 15 days from the date seeding takes place is a requirement under the terms and condition of the exemption. As such, compliance of this requirement is required in order to continue to be subject to the exemption.

If cultivation does not take place or if there is a change that must be made on the existing licence, an Application for Amendment of the Industrial Hemp Licence should be submitted to this Office for cancellation or amendment of the licence, as the case may be. The original licence must be returned with your application for cancellation or amendment.

This form must be completed and returned to the Office of Controlled Substances.

Please submit this form via ONE of the following methods:

1. Email: [hemp@hc-sc.gc.ca](mailto:hemp@hc-sc.gc.ca)
2. By mail:  
Industrial Hemp Section  
161 Goldenrod Driveway  
AL 0300B  
Ottawa, ON K1A 0K9

#### DECLARATION

I hereby declare that the approved cultivar(s) listed on the reverse of this form have been seeded and that the information provided is accurate and complete.

Signature:	Date:
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**NOTIFICATION OF CULTIVATION ACTIVITIES**

Provide the following details for each cultivation site at which cultivation activities took place:  
Please submit additional pages for additional sites, if needed.

Legal Land Location	Approved Cultivar(s)	Seeding Date	Number of Hectares Seeded			
			Pedigreed Seed	Viable Grain	Fibre	Total
Legal Land Location  Rural Municipality  City/Town    Prov    Postal Code						
Legal Land Location  Rural Municipality  City/Town    Prov    Postal Code						
Legal Land Location  Rural Municipality  City/Town    Prov    Postal Code						

GPS coordinates attached

\*\*Note: If a change was made to the existing licence or if seeding did not take place, please submit an Application for Amendment to an Industrial Hemp Licence. The original licence should be returned for amendment or cancellation, whichever is applicable





**HEALTHY ENVIRONMENTS AND CONSUMER SAFETY BRANCH**  
**INDUSTRIAL HEMP REGULATIONS**  
**LIST OF APPROVED CULTIVARS**  
**FOR THE 2016 GROWING SEASON**  
***Cannabis sativa* L.**

Pursuant to Subsection 39(1) of the *Industrial Hemp Regulations*, the following industrial hemp varieties are approved for commercial cultivation under licence for the year 2016. The list may contain variety names that are synonyms for the same variety.

<b>VARIETY</b>	<b>COUNTRY WHERE MAINTAINED</b>	<b>EXEMPT FROM THC TESTING</b> <b>under subsection 16(1) of the <i>Industrial Hemp Regulations</i>*</b>
<i>Alyssa</i>	<i>Canada</i>	<i>Exempt in MB and QC only</i>
<i>Anka</i>	<i>Canada</i>	<i>Exempt in ON and QC only</i>
<i>Canda</i>	<i>Canada</i>	<i>Exempt in AB and MB only</i>
<i>CanMa</i>	<i>Canada</i>	<i>Exempt in QC and SK only</i>
<i>Carmagnola</i>	<i>Italy</i>	<i>No</i>
<i>Carmen</i>	<i>Canada</i>	<i>No</i>
<i>CFX-1</i>	<i>Canada</i>	<i>Yes</i>
<i>CFX-2</i>	<i>Canada</i>	<i>Yes</i>
<i>Crag</i>	<i>Canada</i>	<i>Yes</i>
<i>CRS-1</i>	<i>Canada</i>	<i>Yes</i>
<i>CS</i>	<i>Italy</i>	<i>No</i>
<i>Delores</i>	<i>Canada</i>	<i>Exempt in AB and MB only</i>
<i>Deni</i>	<i>Canada</i>	<i>No</i>
<i>ESTA-1</i>	<i>Canada</i>	<i>No</i>
<i>Fasamo</i>	<i>Germany</i>	<i>No</i>
<i>Fedrina 74</i>	<i>France</i>	<i>No</i>
<i>Felina 34</i>	<i>France</i>	<i>No</i>
<i>Ferimon</i>	<i>France</i>	<i>Exempt in QC only</i>

<b>VARIETY</b>	<b>COUNTRY WHERE MAINTAINED</b>	<b>EXEMPT FROM THC TESTING</b> <i>under subsection 16(1) of the Industrial Hemp Regulations*</i>
<i>Fibranova</i>	<i>Italy</i>	<i>No</i>
<i>Fibriko</i>	<i>Hungary</i>	<i>No</i>
<i>Fibrimon 24</i>	<i>France</i>	<i>No</i>
<i>Fibrimon 56</i>	<i>France</i>	<i>No</i>
<i>Finola**</i>	<i>Canada (Finland)</i>	<i>No</i>
<i>Georgina</i>	<i>Canada</i>	<i>No</i>
<i>GranMa</i>	<i>Canada</i>	<i>No</i>
<i>Grandi</i>	<i>Canada</i>	<i>No</i>
<i>Joey</i>	<i>Canada</i>	<i>No</i>
<i>Jutta</i>	<i>Canada</i>	<i>Exempt in ON only</i>
<i>Katani</i>	<i>Canada</i>	<i>No</i>
<i>Kompolti</i>	<i>Hungary</i>	<i>No</i>
<i>Kompolti Hibrid TC</i>	<i>Hungary</i>	<i>No</i>
<i>Kompolti Sargaszaru</i>	<i>Hungary</i>	<i>No</i>
<i>Lovrin 110</i>	<i>Romania</i>	<i>No</i>
<i>Petera</i>	<i>Canada</i>	<i>No</i>
<i>Piccolo</i>	<i>Canada</i>	<i>No</i>
<i>Silesia</i>	<i>Canada</i>	<i>Exempt in AB only</i>
<i>UC-RGM</i>	<i>Canada</i>	<i>No</i>
<i>Uniko B</i>	<i>Hungary</i>	<i>No</i>
<i>USO 14</i>	<i>Canada (Ukraine)</i>	<i>Yes</i>
<i>USO 31</i>	<i>Canada (Ukraine)</i>	<i>Yes</i>
<i>Victoria</i>	<i>Canada</i>	<i>No</i>
<i>X-59 (Hemp Nut)</i>	<i>Canada</i>	<i>Yes</i>
<i>Yvonne</i>	<i>Canada</i>	<i>No</i>

VARIETY	COUNTRY WHERE MAINTAINED	EXEMPT FROM THC TESTING under subsection 16(1) of the <i>Industrial Hemp Regulations</i> *
Zolotonosha 11	Canada (Ukraine)	Exempt in MB only
Zolotonosha 15	Canada (Ukraine)	No

\* Samples will be taken by inspectors designated under the CDSA for routine variety monitoring.

\*\* Denotes variety under observation.

**All cultivars may be grown in all regions, however requirements for THC testing under Subsection 16(1) of the IHR may vary from province to province, as indicated in the table above.**

**Amendments to the List of Approved Cultivars for 2016:**

**Additions:** No varieties were added to the list this year.

**Deletions:** No varieties were removed from the list this year.

**Observation:** The variety *Finola*, remains under observation. Sampling and monitoring of production, as well as, a thorough verification of eligible parent seed planted will continue in 2016.

**Please Note:**

Subsection 14(3) of the *Industrial Hemp Regulations* (IHR) requires that all seed planted for the production of industrial hemp in Canada must be of pedigreed status (Certified or better). This means that seed cannot be imported directly from countries that are not recognized by one of the Seed Certification Schemes of which Canada is a member. Canada is a member of two schemes, the Organization for Economic Cooperation and Development (OECD) Seed Scheme and that administered by the Association of Official Seed Certifying Agencies (AOSCA). Farmer-saved seed cannot be planted, unless it is Certified seed. Official seed tags will be requested by an inspector as evidence of compliance.

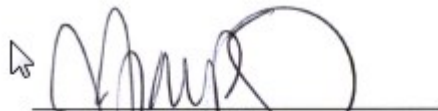
Under Subsection 16(1) of the IHR, a person who holds a licence to cultivate industrial hemp is required by law to have their crop sampled by an authorized Crop Sampler, unless the variety is specifically exempted from this testing. Sampling by a designated inspector does not exempt a licence holder from this testing. The sample taken by the authorized Crop Sampler must be tested by a competent laboratory, licensed for testing industrial hemp. A list of licensed laboratories is available on our website. Test results must be reported to the Office of Controlled Substances, at the address below. Varieties which are found to consistently exceed 0.3% THC may be removed from the *List of Approved Cultivars*.

Seven varieties, CFX-1, CFX-2, Crag, CRS-1, USO 14, USO 31 and X-59 (Hemp Nut) are exempted from annual testing as required under paragraph 16(1) of the IHR for **all regions of Canada**. The varieties Alyssa, Anka, Canda, CanMa, Delores, Ferimon, Jutta, Silesia and Zolotonosha 11 are only exempt in the provinces indicated in the table above. All varieties have been evaluated against the *Policy on the Exemption of Industrial Hemp Varieties from THC Testing During the Growing Season*. A copy of this policy can be found on our website at [www.healthcanada.gc.ca/hemp](http://www.healthcanada.gc.ca/hemp).

The Office of Controlled Substances must be informed immediately in writing in the event of crop failure where samples cannot be drawn for testing.

Questions regarding the *List of Approved Cultivars - 2016* may be submitted to:

Industrial Hemp Section  
Office of Controlled Substances  
Health Canada  
AL 0300B  
Ottawa, ON K1A 0K9  
Phone: (613) 954-6524  
Fax: (613) 960-1740  
Email: hemp@hc-sc.gc.ca



Julie Thompson  
Director  
Office of Controlled Substances

MAR 09 2016

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Date

## Health Concerns

### Licensing Process

In Canada, provision is made under the Industrial Hemp Regulations for production of industrial hemp under licence. Most activities related to the possession, production and sale or distribution of industrial hemp, including importation and exportation, require a licence. Licences must be obtained before starting any activity that requires a licence. Submission of an application form does not constitute authorization to commence an activity requiring a licence.

- [Application Process](#)
- [Application Review and Approval](#)
- [Licence Amendments](#)
- [Licence and Permit Applications](#)

### Application Process

In order to obtain a licence, you must be at least 18 years of age and ordinarily reside in Canada. If the applicant is a corporation or cooperative, the corporation or cooperative must have its head office in Canada, or operate a branch office in Canada. Should you require printed copies of any documents, call our information line at (613) 954-6524 or fax us a request at (613) 941-5360. Requests for documentation can also be submitted by e-mail to: [hemp@hc-sc.gc.ca](mailto:hemp@hc-sc.gc.ca).

You must submit a completed general licence application form and attach the appropriate schedule for each activity for which a licence is required. You must include any supporting documentation for activities that may require proof of qualification or membership in a professional organization or program.

A separate licence is required for each location to be licensed. If you require a licence for more than one location, you must submit a separate schedule providing information for each location. Original signatures on the original application forms are required before the evaluation process can be completed. Completed applications should be sent to:

Industrial Hemp Section  
Office of Controlled Substances  
123 Slater Street  
AL 3502A  
Ottawa ON K1A 1B9

### Application Review and Approval

Each application goes through a formal review process and verification of the information. If information is missing or incorrect, an evaluator will contact you to request the missing information. In some cases, applications may be returned to you for completion.

### Licence Amendments

Amendments to licences can be made. You must submit an appropriate schedule that contains information explaining the amendment, along with the original copy of your licence to the Office of Controlled Substances. Be sure to retain a photocopy of your current licence to ensure you are able to carry on business while your licence is being amended.

### Licence and Permit Applications

Below you will find a menu of application forms required to request a licence or permit for specific activities related to industrial hemp. A guidance document is available for each application form. Please follow it closely so your application can be processed efficiently.

You may apply for a licence for the upcoming calendar year as early as mid-December. For cultivation licences, the application should be sent in by the end of April to ensure that there is sufficient time to

process your application and get your licence to you before seed purchase and planting.

A research licence [application](#) will take longer to process, particularly if it is for a new project or concept that requires a policy decision or legal opinion.

- Breeding
- Business Officers, Directors and/or Partners
- Cultivation
- Cultivation for Research Purposes
- Derivative Processing
- Distribution
- Exporting (Licence and permit)
- Importing (Licence and permit)
- Possession
- Processing
- Testing

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Date Modified: 2012-11-15



**APPLICATION FOR AN INDUSTRIAL HEMP LICENCE**  
(disponible en français)

Have you previously been licensed or authorized under the *Industrial Hemp Regulations*?

YES     NO    File Number 9636-8- \_\_\_\_\_

Do you currently possess industrial hemp from a previous year?

YES     NO

**SECTION 1: APPLICANT INFORMATION**

<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	Surname	Gender	<input type="checkbox"/> Male
<input type="checkbox"/> Mrs.	<input type="checkbox"/> Miss			<input type="checkbox"/> Female

First Name	Second Name	Date of Birth (Year/Month/Day)
------------	-------------	--------------------------------

Mailing Address (Include PO Box, if applicable)	Address Line 2 (RM, District, County, etc)
---	--

City/Town	Province	Postal Code
-----------	----------	-------------

Telephone Number	Fax Number	Email Address
------------------	------------	---------------

Preferred Language of Communication	Preferred Method of Communication
<input type="checkbox"/> English <input type="checkbox"/> French	<input type="checkbox"/> Telephone <input type="checkbox"/> Email

**SECTION 1.1: CORPORATE INFORMATION**

Corporate Name:

If the applicant is a corporation, cooperative, or partnership, the following must be attached to the application form, where applicable:

For **renewal** applicants, are there changes to the corporation information from the application submitted in the previous year?

No (proceed to Section 1.2)                       Yes (proceed below)

For **new** applicants, or **renewal applicants who answered 'yes' above**, please attach the following:

- copy of the certificate of incorporation or other constating instrument; or
- copy of any document registering with a province the name and style under which it operates or intends to operate; or
- evidence of partnership agreement.

**SECTION 1.2: CORPORATE INFORMATION (OFFICERS, DIRECTORS, PARTNERS)**

Please provide the following information for the applicant, officer, and director in the case of a corporation or cooperative and each partner in the case of a partnership. A criminal record check should be enclosed for each individual listed below.

Information same as Section 1: Applicant Information

<input type="checkbox"/> Mr. <input type="checkbox"/> Mrs	<input type="checkbox"/> Ms. <input type="checkbox"/> Miss	Surname	First Name	Second Name
Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female	Date of Birth (Year/Month/Day)	Title/Position (if applicable)	

I have attached the criminal record check certificate issued by a Canadian police force.

Signature:	Date
------------	------

<input type="checkbox"/> Mr. <input type="checkbox"/> Mrs	<input type="checkbox"/> Ms. <input type="checkbox"/> Miss	Surname	First Name	Second Name
Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female	Date of Birth (Year/Month/Day)	Title/Position (if applicable)	

I have attached the criminal record check certificate issued by a Canadian police force.

Signature:	Date
------------	------

<input type="checkbox"/> Mr. <input type="checkbox"/> Mrs	<input type="checkbox"/> Ms. <input type="checkbox"/> Miss	Surname	First Name	Second Name
Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female	Date of Birth (Year/Month/Day)	Title/Position (if applicable)	

I have attached the criminal record check certificate issued by a Canadian police force.

Signature:	Date
------------	------

\* Please submit additional pages for additional persons, if needed.

**SECTION 2: CULTIVATION ACTIVITIES**

Do you intend to cultivate industrial hemp this year?  
(if land is not owned by applicant, complete and attach Appendix 3)  YES  NO

Indicate the approved cultivar(s) for cultivation: \_\_\_\_\_

If the location of your cultivation site(s) are known, please complete and attach Appendix 2.

If the location of your cultivation site(s) are not known, notify the Office of Controlled Substances within 15 days of seeding **AFTER** you obtain your licence with the provided Notification form of the following:

- the number of hectares to be cultivated for seed or viable grain and the number of hectares to be cultivated for fibre;
- the Global Positioning System coordinates to situate each site cultivated;
- if any part of the site is to be cultivated for seed or viable grain, the Global Positioning System coordinates to situate that part of the site.



**SECTION 3: ADDITIONAL ACTIVITIES**

Complete the following table for each proposed site at which the applicant intends to engage in additional activities with industrial hemp. Please submit additional pages for additional sites, if required.

Address or Legal Land Description (P.O. Box is not acceptable)		Activity and Form of Industrial Hemp (Check all that apply)	
Site Number	Address	<input type="checkbox"/> Sell/Provide (Distribution)	<input type="checkbox"/> pedigreed seed <input type="checkbox"/> viable grain
Address (RM, District, County, etc)		<input type="checkbox"/> Exportation	<input type="checkbox"/> pedigreed seed <input type="checkbox"/> viable grain
		<input type="checkbox"/> Importation (complete Appendix 1.3)	<input type="checkbox"/> pedigreed seed <input type="checkbox"/> viable grain
City/Town		<input type="checkbox"/> Processing (complete Section 5)	
Province	Postal Code	<input type="checkbox"/> Production of derivative and/or product (complete Section 6)	
		<input type="checkbox"/> Viability Testing (complete Appendix 1.4)	
Site Number	Address	<input type="checkbox"/> Sell/Provide (Distribution)	<input type="checkbox"/> pedigreed seed <input type="checkbox"/> viable grain
Address (RM, District, County, etc)		<input type="checkbox"/> Exportation	<input type="checkbox"/> pedigreed seed <input type="checkbox"/> viable grain
		<input type="checkbox"/> Importation (complete Appendix 1.3)	<input type="checkbox"/> pedigreed seed <input type="checkbox"/> viable grain
City/Town		<input type="checkbox"/> Processing (complete Section 5)	
Province	Postal Code	<input type="checkbox"/> Production of derivative and/or product (complete Section 6)	
		<input type="checkbox"/> Viability Testing (complete Appendix 1.4)	

### SECTION 4: RECORDS AND STORAGE SITE

The address of the place in Canada where the applicant will store and keep the records, books, electronic data, or other documents are required:

Records, books, electronic data or other documents relating to the licensed activity will be kept at the following address:

Address City/Town Province Postal Code

Storage of industrial hemp will occur at the following address:

Address City/Town Province Postal Code

### SECTION 5: PROCESSING INDUSTRIAL HEMP

Please complete the following table for each site at which processing activities will take place with industrial hemp:

Site Number	<input type="checkbox"/> Pressing (complete Section 6)	<input type="checkbox"/> pedigreed seed	<input type="checkbox"/> viable grain	<input type="checkbox"/> non-viable grain
	<input type="checkbox"/> Rendering non-viable	<input type="checkbox"/> pedigreed seed grain	<input type="checkbox"/> viable	Approved method: <input type="checkbox"/> Steam <input type="checkbox"/> Infra-Red Radiation
	<input type="checkbox"/> Cleaning	<input type="checkbox"/> pedigreed seed	<input type="checkbox"/> viable grain	<input type="checkbox"/> non-viable grain
	<input type="checkbox"/> Conditioning	<input type="checkbox"/> pedigreed seed (complete Appendix 1.2)	<input type="checkbox"/> viable grain	<input type="checkbox"/> non-viable grain

### SECTION 6: PRODUCTION OF A DERIVATIVE OF INDUSTRIAL HEMP

Please provide a detailed description of the production, including the initial form of industrial hemp (e.g., seed or grain) the production activities and methods to take place, and the final derivatives and/or product(s).

Site Number	Description:
-------------	--------------

#### SECTION 6.1: STATEMENT

I **attest** that the proposed derivatives will not be produced from whole industrial hemp plants, including sprouts, or the leaves, flowers, or bracts of those plants.

Signature	Date:
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### SECTION 7: APPLICATION CERTIFICATION

For the authorization(s) and licence(s) requested, the following statements must be signed by the individual responsible for ensuring compliance with the requirements.

**I hereby certify that:**

1. All information and documents submitted in support of this application, including the information submitted on any attached documentation, are correct and complete to the best of my knowledge.
2. If this licence application is submitted on behalf of a corporation, cooperative, or partnership, I, being one of its officers, directors, or partners, am in a position of authority with respect to binding the applicant.
3. I have read and understand the security measures required with respect to the activity(ies) for which a licence or authorization is requested, and state that I, or in the case of a corporation, cooperative, or partnership, the applicant, will meet these requirements.

Signature:

Printed Name:

Date:

### SECTION 8: CONSENT TO PUBLICATION OF CONTACT INFORMATION

I, being the applicant, consent to the inclusion of my name, the company name, e-mail and mailing address, telephone and facsimile numbers, and licensed regulated activities (distribution, exportation, importation, processing, viability testing, production of derivatives, and/or products) on a list of licensed individuals or companies to be published by Health Canada.

Yes

No

Signature \_\_\_\_\_

### SECTION 9: SUBMISSION

Please submit the **completed** application form and all required documents via **ONE** of the following methods:

E-mail to: [hemp@hc-sc.gc.ca](mailto:hemp@hc-sc.gc.ca)

OR

Industrial Hemp Section  
Authorizations Division  
Office of Controlled Substances  
Health Canada  
161 Goldenrod Drwy  
AL 0300B  
Ottawa ON K1A 0K9

Should you wish to receive your licence(s) via courier; please enclose a waybill with your application.

Note: In order to avoid delays with the issuance of your licence, please ensure that complete applications are submitted. If a complete application is not submitted, the application will be returned to you.

If you have questions regarding this application, please contact the Industrial Hemp Section by email at: [hemp@hc-sc.gc.ca](mailto:hemp@hc-sc.gc.ca).

**APPENDIX 1: ATTESTATION OF CERTIFICATES OF REGISTRATION**

For the authorization(s) and licence(s) requested, the following applicable statements must be signed by the individual responsible for ensuring compliance with the requirements of the *Canada Agriculture Products Act and Seeds Regulations*.

<p><b>1.1 Plant Breeder</b></p>	<p><b>I hereby certify that:</b></p> <p>I, as the applicant, am a member of the Canadian Seed Growers' Association and have a valid plant breeder's designation issued by the Canadian Seed Growers' Association.</p> <table border="1"> <tr> <td>Signature:</td> <td></td> <td>Date:</td> </tr> </table>	Signature:		Date:
Signature:		Date:		
<p><b>1.2 Approved Conditioner</b></p>	<p><b>I hereby certify that:</b></p> <p>The establishment at which the conditioning of seed will take place has a valid Certification of Registration issued under Part IV of the <i>Seed Regulations</i>.</p> <p>Address of establishment:</p> <table border="1"> <tr> <td>Signature:</td> <td>Date:</td> </tr> </table>	Signature:	Date:	
Signature:	Date:			
<p><b>1.3 Authorized Importer</b></p>	<p><b>I hereby certify that:</b></p> <p>The establishment at which the preparation of seed that is imported will take place has a valid Certification of Registration issued under Part IV of the <i>Seed Regulations</i>.</p> <p>Address of establishment:</p> <table border="1"> <tr> <td>Signature:</td> <td>Date:</td> </tr> </table>	Signature:	Date:	
Signature:	Date:			
<p><b>1.4 Laboratory for viability testing</b></p>	<p>I, as the owner or operator of a laboratory that will possess industrial hemp for the purpose of testing for viability, <b>hereby certify that:</b></p> <p>The laboratory has a valid designation as an accredited laboratory issued under section 14 of the <i>Canadian Agriculture Products Act</i></p> <p>Address of establishment:</p> <table border="1"> <tr> <td>Signature of owner or operator of laboratory:</td> <td>Date:</td> </tr> </table>	Signature of owner or operator of laboratory:	Date:	
Signature of owner or operator of laboratory:	Date:			

**APPENDIX 2: CULTIVATION AND/OR PLANT BREEDING OF INDUSTRIAL HEMP**

Indicate each proposed site for cultivation and/or plant breed of industrial hemp. Each proposed site must be assigned a site number (e.g. 1,2,3,4, etc.).  
Please submit additional pages for additional sites, if needed.

<b>Site Number Activity</b>	<b>Proposed Legal Location</b>	<b>Approved Cultivar Name(s)</b>	<b>Industrial Hemp form</b>	<b>Name of Landowner</b>
<input type="checkbox"/> Cultivation  <input type="checkbox"/> Plant Breeding (Complete Appendix 1)	Legal Land Location	Cultivar #1	<input type="checkbox"/> Pedigreed Seed <sup>1</sup> <input type="checkbox"/> Viable Grain <sup>2</sup> <input type="checkbox"/> Fibre	<input type="checkbox"/> Owned by Applicant  <input type="checkbox"/> Owned by another  <input type="checkbox"/> Appendix 3 attached
	Rural Municipality	Cultivar #2	<input type="checkbox"/> Pedigreed Seed <input type="checkbox"/> Viable Grain <input type="checkbox"/> Fibre	
	City/Town                      Prov                      Postal Code	Cultivar #3	<input type="checkbox"/> Pedigreed Seed <input type="checkbox"/> Viable Grain <input type="checkbox"/> Fibre	
<input type="checkbox"/> Cultivation  <input type="checkbox"/> Plant Breeding (Complete Appendix 1)	Legal Land Location	Cultivar #1	<input type="checkbox"/> Pedigreed Seed <input type="checkbox"/> Viable Grain <input type="checkbox"/> Fibre	<input type="checkbox"/> Owned by Applicant  <input type="checkbox"/> Owned by another  <input type="checkbox"/> Appendix 3 attached
	Rural Municipality	Cultivar #2	<input type="checkbox"/> Pedigreed Seed <input type="checkbox"/> Viable Grain <input type="checkbox"/> Fibre	
	City/Town                      Prov                      Postal Code	Cultivar #3	<input type="checkbox"/> Pedigreed Seed <input type="checkbox"/> Viable Grain <input type="checkbox"/> Fibre	
<input type="checkbox"/> Cultivation  <input type="checkbox"/> Plant Breeding (Complete Appendix 1)	Legal Land Location	Cultivar #1	<input type="checkbox"/> Pedigreed Seed <input type="checkbox"/> Viable Grain <input type="checkbox"/> Fibre	<input type="checkbox"/> Owned by Applicant  <input type="checkbox"/> Owned by another  <input type="checkbox"/> Appendix 3 attached
	Rural Municipality	Cultivar #2	<input type="checkbox"/> Pedigreed Seed <input type="checkbox"/> Viable Grain <input type="checkbox"/> Fibre	
	City/Town                      Prov                      Postal Code	Cultivar #3	<input type="checkbox"/> Pedigreed Seed <input type="checkbox"/> Viable Grain <input type="checkbox"/> Fibre	

**SECTION 2.1 DECLARATION**

**I hereby declare** that my production site(s) is/are not within one kilometre of any school grounds or any other public place usually frequented by persons under the age of 18 years.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

1 Pedigreed seed: any part of an industrial hemp plant that is represented, sold, or used to grow a plant.  
2 Viable grain: viable achene of an industrial hemp plant, not represented, sold, or used to grow a plant, which is used for processing.

**APPENDIX 3: CONSENT TO USE OF LAND FOR CULTIVATION BY LANDOWNER**

This information is required under subparagraph 8(1)(g)(vi) of the *Industrial Hemp Regulations*.

I NAME OF LAND OWNER, owner of \_\_\_\_\_

\_\_\_\_\_  
City/Town/RM, Postal Code

consent to the use of my land for the cultivation of Industrial Hemp (*Cannabis Sativa L.*) by

Name of Applicant .

Signed: \_\_\_\_\_  
Landowner Signature

Date: \_\_\_\_\_  
Year/Month/Day

(If other cultivation sites of the same Landowner are to be used for Industrial Hemp, please list them in the space below.)

## CHECKLIST FOR THE APPLICATION FOR AN INDUSTRIAL HEMP LICENCE

This checklist is provided to assist you in ensuring that all the required information has been included in your application for an Industrial Hemp Licence. Incomplete applications will be returned to you until the required information is received.

### BEFORE YOU OBTAIN A LICENCE

- All applicable sections of the application form are complete (Section 1, 2, 3, 4, 5, 6, 7, 8).
- Criminal Record Check document (s) is/are enclosed with your application form.
- Certificate of incorporation or evidence of partnership is enclosed with your application (For new applicants or where there are changes to existing documents).
- For plant breeders, seed conditioners, authorized importers, and operators of laboratory for viability testing, ensure that Appendix 1 is completed and submitted with your application.
- If the locations of your cultivation sites are known at the time of application, complete and submit Appendix 2.
- Consent to Use of Land for Cultivation by Landowner is completed and attached with your application, if cultivation will take place on land owned by a third-party (i.e. not owned by the applicant), the written consent, from the landowner has been submitted for each site (see Appendix 3).

### AFTER YOU OBTAIN YOUR LICENCE

- If the location of your cultivation sites were not submitted at the time of application, complete and submit the "Notification of Cultivation of Industrial Hemp" form to the Office of Controlled Substances within 15 days from seeding. The following information should be provided on the form:
  - the number of hectares to be cultivated for seed or viable grain and the number of hectares to be cultivated for fibre;
  - the Global Positioning System coordinates to situate each site cultivated;
  - if any part of the site is to be cultivated for seed or viable grain, the Global Positioning System coordinates to situate that part of the site;
  - if not already provided, a statement that the applicant is the owner of the land to be used for the cultivation or a statement, signed by the owner of the land, indicating that he or she has consented to that use.
- For licence holders who are cultivating industrial hemp for pedigreed seed or for inclusion of a variety on the List of Approved Cultivar (LOAC), ensure that your THC test results are submitted before November 15 of the year the test was performed, unless the cultivar is exempted from the LOAC.
- If changes are required to your existing licence (e.g., addition of a new activity, form of hemp, address on the licence, change in approved cultivar), please complete and submit an "Application for Amendment to an Industrial Hemp Licence" form. The original licence must be returned with your application.







## SECTION 56 CLASS EXEMPTION IN RELATION TO THE *INDUSTRIAL HEMP REGULATIONS*

### **Definitions**

The terms used in this exemption have the same meaning as they do in the *Controlled Drugs and Substances Act* (CDSA) and in the *Industrial Hemp Regulations* (IHR).

### **Scope of the Exemption**

Pursuant to section 56 of the CDSA, a person who holds a valid licence issued under this exemption and who complies with the terms and conditions set out below is hereby exempted from sections 4, 5, 6 and 7 of the CDSA and the provisions of the IHR to the extent necessary to allow that person to

- a. import, export and possess industrial hemp;
- b. produce, sell, provide, transport, send or deliver industrial hemp; and
- c. offer to do anything mentioned in (b).

Sections 2 and 3 of the IHR, with the necessary adaptations, set out the scope of application of this exemption.

### **Eligibility and Licence**

1. To be eligible to hold a licence or permit issued under this exemption, a person must
  - a. if the person is an individual, ordinarily reside in Canada or, if the person is a partnership, have at least one of its partners is an individual who ordinarily resides in Canada;
  - b. if the person is a corporation or cooperative, have its head office in Canada or operate a branch office in Canada;
  - c. if the person is a corporation, cooperative or partnership, have officers, directors or partners, as the case may be, that do not have a criminal record that includes within the previous 10 years
    - i. a designated drug offence, or
    - ii. if he or she ordinarily resides in a country other than Canada, an offence that if committed in Canada would constitute a designated drug offence;
  - d. if the person is an individual, not be less than 18 years of age, or, if the person is a corporation, cooperative or partnership, must not have any of its officers, directors or partners, as the case may be, be less than 18 years of age;

.../2

- e. if the person is an individual, not have had, in the previous five years, a licence or authorization under the Act revoked, except if the revocation was due to loss or theft of the licence or authorization;
  - f. if the person is a corporation, cooperative or partnership,
    - i. not have any of its officers, directors or partners, as the case may be, that has had in the previous five years a licence or authorization revoked under the Act, except if the revocation was due to loss or theft of the licence or authorization, and
    - ii. not have any of its officers, directors or partners, as the case may be, that have been an officer, director or partner of a corporation, cooperative or partnership, as the case may be, that has had such a licence or authorization revoked in the previous five years, except if the revocation was due to loss or theft of the licence or authorization.
2. A person who applies for a licence under this exemption shall submit the following information and documents to the Minister, on a form provided by the Minister:
- a. the applicant's name, their mailing address and the phone number in Canada and, if applicable, their fax number and electronic mail address;
  - b. the applicant's date of birth, or in the case of a corporation, cooperative or partnership, the names and dates of birth of its officers, directors and partners as the case may be;
  - c. in the case of a corporation or cooperative, a copy of the certificate of incorporation or other constating instrument, and, in the case of a corporation, cooperative or partnership, a copy of any document registering with a province the name and style under which it operates or intends to operate;
  - d. the activity for which the licence is requested;
  - e. the form in which the industrial hemp is to be imported, exported, produced, sold, provided, possessed, transported, sent or delivered, as the case may be;
  - f. the address of each place where the industrial hemp is to be stored, sold or provided, indicating for each place the form of industrial hemp;
  - g. in the case of the cultivation of industrial hemp,
    - i. the approved cultivar that will be sown, or the variety of industrial hemp if the applicant is a plant breeder,
    - ii. if known, a statement that the applicant is the owner of the land to be used for the cultivation or a statement, signed by the owner of the land, indicating that he or she has consented to that use,

- iii. if the applicant is cultivating for seed, a statement that the he or she is a member of the Canadian Seed Growers' Association, and
  - iv. if the applicant is cultivating to produce breeder seed or a new variety of industrial hemp, a statement that he or she is a plant breeder;
- h. in the case of the processing of seed, viable grain or non-viable cannabis seed,
- i. the address of each place at which the processing will take place, and
  - ii. if the application is for conditioning seed or viable grain, a statement that a Certificate of Registration has been issued under Part IV of the *Seed Regulations* for the establishment at which the conditioning will take place;
- i. in the case of an importer of seed or viable grain, a statement that a Certificate of Registration has been issued under Part IV of the *Seed Regulations* for the establishment at which the imported seed or viable grain will be prepared, and the address of that establishment;
- j. for each establishment mentioned in paragraphs 2(h) and (i) of this exemption, a statement that an individual is licensed under section 96 of the *Seeds Regulations* as an operator of the establishment;
- k. in the case of the owner or operator of a laboratory who intends to possess industrial hemp for the purpose of testing for viability, a statement that the laboratory has been designated as an accredited laboratory under section 14 of the *Canada Agricultural Products Act*, and the address of the laboratory;
- l. the address of the place in Canada where the applicant will keep the records, books, electronic data or other documents that are required under this exemption to be kept;
- m. in respect of the applicant, each officer and director in the case of a corporation or cooperative and each partner in the case of a partnership, a document issued by a Canadian police force setting out for the previous 10 years his or her criminal record in respect of any designated drug offences, or indicating that the person has no such record;
- n. in addition to the document referred to in paragraph 2(m) of this exemption, for any officer, director or partner who ordinarily resides in a country other than Canada, a document issued by a police force of that country setting out for the previous 10 years his or her criminal record in respect of any offence that if committed in Canada would constitute a designated drug offence, or indicating that the person has no such record;

- o. a statement that the applicant will comply with the security measures set out in sections 36 and 37 of the IHR required under this exemption in respect of the activity; and
    - p. any other information required by the Minister.
- 3. An application shall be signed by the applicant, or in the case of a corporation, cooperative or partnership, by one of its officers, directors or partners, as the case may be, and indicate that all information and documents submitted in support of the application are correct and complete to the best of his or her knowledge.
- 4. A licence or permit issued on the basis of false or misleading information, or false or falsified document is invalid.
- 5. A licence or permit may be revoked if,
  - a. in the case of cultivation of industrial hemp,
    - i. the licence holder is no longer a member of the Canadian Seed Growers' Association, or
    - ii. the licence holder is no longer a plant breeder and is cultivating to produce breeder seed or a new variety of industrial hemp;
  - b. in the case of conditioning seed or viable grain, the establishment at which the conditioning takes place no longer holds a Certificate of Registration issued under Part IV of the *Seed Regulations*;
  - c. in the case of an importer of seed or viable grain, the establishment at which the conditioning will take place no longer holds a Certificate of Registration issued under Part IV of the *Seed Regulations*; or
  - d. in the case of the owner or operator of a laboratory who intends to possess industrial hemp for the purpose of testing for viability, the laboratory no longer is designated as an accredited laboratory under section 14 of the *Canada Agricultural Products Act*.
- 6. A licence or permit may be revoked where it is necessary to protect the security, safety or health of the public, if there are reasonable grounds to believe that the holder has failed to comply with any condition of the licence or the terms and conditions of this exemption.
- 7. A licence or permit shall be revoked at the request of the holder, or when he notifies the Minister that the licence or permit has been lost or stolen.

### **Terms and Conditions**

- 8. A person who holds a licence shall comply with section 4 of the IHR.

9. Only a person that holds a licence may engage in any of the following activities that are permitted by their licence:
  - a. the importation or exportation of industrial hemp;
  - b. the production, sale or provision of industrial hemp.
10. A person who holds a licence is subject to subsections 5(2) to (4) and section 6 of the IHR, with the necessary adaptations.

#### Post-Licensing Notifications

11. Within 15 days after seeding, a person who holds a licence to cultivate industrial hemp must provide in their notification to the Minister the following:
  - a. the number of hectares cultivated for seed or viable grain and the number of hectares to be cultivated for fibre;
  - b. the Global Positioning System coordinates to situate each site cultivated;
  - c. if any part of the site is cultivated for seed or viable grain, the Global Positioning System coordinates to situate that part of the site; and
  - d. if not already provided, a statement that the applicant is the owner of the land to be used for the cultivation or a statement, signed by the owner of the land, indicating that he or she has consented to that use.

#### Other Notifications

12. The holder of a licence shall notify the Minister in accordance with sections 11 and 12 of the IHR, with the necessary adaptations.

#### Amendments

13. Where the holder of a licence requires an amendment to the licence, he or she may submit a written request to the Minister, together with the licence.

#### Cultivation

14. A person who holds a licence to cultivate industrial hemp is subject to section 14, subsection 15(2) and section 17 of the IHR.
15. Unless testing is not required for an approved cultivar in a region, as indicated in the *List of Approved Cultivars*, a person who holds a licence to cultivate seed or breeder seed shall, in order to determine the concentration of THC in the hemp,

- a. have samples of the industrial hemp collected in accordance with the methods set out in the Manual; and
  - b. have samples tested at a competent laboratory using analytical procedures set out in the Manual.
16. A person who holds a licence shall submit to the Minister the results of each laboratory test:
- a. if the test occurs before November 15, by November 15 of the same calendar year;
  - b. if the test occurs on November 15 or after, by November 15 of the following calendar year.

### Importation and Exportation

17. A person who is licenced to import seed is subject to section 18, subsection 19(1) and section 20 of the IHR.
18. An importer who applies for a permit to import industrial hemp is subject to section 21 of the IHR and must hold a licence to import industrial hemp.
19. A person who is licensed to import industrial hemp is subject to sections 23 and 24 of the IHR.
20. A person who is licensed to import industrial hemp shall verify that the package and the content does not contravene any known requirement of the law of the country from which the industrial hemp is imported, or any country of transit or transshipment.
21. A person who applies for a permit to export industrial hemp is subject to section 26 of the IHR and must hold a licence to export industrial hemp.
22. A person who is licenced to export industrial hemp shall comply with sections 28 and 29 of the IHR.
23. A person who is licensed to export industrial hemp shall verify that the package and the content does not contravene any known requirement of the law of the country to which the industrial hemp is exported, or any country of transit or transshipment.

### General

24. Every licence holder is subject to sections 31, 32 as well as sections 34 to 38 of the IHR, with the necessary adaptations.

25. Every licence holder who is required by conditions of this exemption to have the THC concentration in industrial hemp tested, or to maintain records of this testing, shall keep a representative sample of the industrial hemp tested for at least one year. This sample must be collected in accordance with the Manual.

### Inspection

26. A person who holds a licence must allow any inspector duly authorized under the CDSA to enter their site, at any reasonable time, to ensure compliance with this exemption and must allow the inspector to exercise all the powers and functions set out in section 31 of the CDSA, with the necessary adaptations.
27. A person who holds a licence must not, by act or omission, obstruct an inspector who is engaged in an inspection under Term and Condition 26.
28. A person who holds a licence must not knowingly make any false or misleading statement verbally or in writing to an inspector who is engaged in an inspection under Term and Condition 26.
29. A person who holds a licence must not, without the permission of an inspector, remove, alter or interfere in any way with anything seized, detained or taken by an inspector as a result of an inspection under Term and Condition 26.
30. At the site entered by an inspector for the purpose of ensuring compliance with the exemption, the person who holds a licence must give the inspector all reasonable assistance and furnish the inspector with any information the inspector may reasonably require for the purpose of the inspection.

### Duration

31. A licence is valid for the calendar year for which it is issued, and continues to be valid until March 31 of the following year.
32. An import or export permit is valid for a maximum of six months, as specified on the permit, or until the permit holder's licence expires, whichever is earlier.
33. This exemption expires on the earliest of the following three dates:
  - the date on which this exemption is replaced by another exemption,
  - the date of revocation,
  - December 31, 2017.

The exemption may be suspended without prior notice if the Minister deems that such suspension is necessary to protect public health, safety or security. If necessary, the Minister may change the terms and conditions of this exemption. Should this be the case, you will be informed in writing and reasons for the changes will be provided.

Notwithstanding the conditions above on the ability to suspend, the Minister may suspend or revoke the exemption if she believes that it is no longer in the public interest.

*Original signed by Ana G. Renart*

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Director General, Controlled Substances Directorate  
Healthy Environments and Consumer Safety Branch, Health Canada  
For and on behalf of the Minister of Health

Effective Date: November 21, 2016



**TAB 4**

**FLAX SUPPLY AND DISPOSITION AND HEALTH FOOD INFORMATION**



## Canadian Supply And Disposition Flax

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
(Thousand Acres)						projection
Acres Planted	740	980	1070	1584	1641	935
Acres Harvested	720	950	1043	1534	1596	836
Yield (Bushels/Acre) (Thousand Tonnes)	21.8	20.3	27.6	22.4	23.2	27.1
On Farms Commercial Positions	130	85	19	33	60	169
<b>Beginning Stocks</b>	<b>193</b>	<b>137</b>	<b>71</b>	<b>92</b>	<b>97</b>	<b>274</b>
Production	399	489	731	873	942	579
Imports	9	15	14	10	10	10
<b>Total Supply</b>	<b>601</b>	<b>641</b>	<b>816</b>	<b>975</b>	<b>1049</b>	<b>863</b>
Exports Grain	391	481	616	708	615	600
Exports Products	0	0	0	0	0	0
<b>Total Exports</b>	<b>391</b>	<b>481</b>	<b>616</b>	<b>708</b>	<b>615</b>	<b>600</b>
Human Food		0	0	0	0	0
Seed Requirements	17	16	27	29	26	28
Industrial Use	55	72	80	117	101	100
Loss In Handling Feed, Waste and Dockage	1	1	1	1	1	1
<b>Total Domestic Usage</b>	<b>73</b>	<b>89</b>	<b>108</b>	<b>170</b>	<b>160</b>	<b>149</b>
<b>Total Disposition</b>	<b>464</b>	<b>570</b>	<b>724</b>	<b>878</b>	<b>775</b>	<b>749</b>
<b>Ending Stocks</b>	<b>137</b>	<b>71</b>	<b>92</b>	<b>97</b>	<b>274</b>	<b>114</b>
Stocks/Use %	29.5	12.5	12.7	11.0	35.4	15.2

Source: Historical - Statistics Canada; Projection - Alberta Agriculture and Forestry  
Date: Feb 2017



# Flax

## *A healthy Food!*

Flaxseed comes from a blue-flowered plant grown in the cool, northern climate of the western Canadian prairies. Canadian flaxseed is the favourite choice of consumers. The omega-3 fatty acid, fibre and antioxidants in flax are nutrients that help keep us healthy.

### **A better diet with flaxseed**

Canadian flaxseed is a highly nutritious food. Flaxseed contains the omega-3 fatty acid, alpha-linolenic acid (ALA), fibre and plant lignans.

#### **Omega-3 fatty acid**

About 42% of flaxseed is oil and more than 70% of that oil is comprised of healthy polyunsaturated fatty acids. Flaxseed contains 55-57% of the essential omega-3 fatty acid, ALA.

#### **Fibre**

Flaxseed contains soluble and insoluble fibre. Soluble fibre can lower blood cholesterol levels and help moderate blood sugar, while insoluble fibre moves the stool through the colon more quickly, helping bowel movements and improving laxation.

#### **Lignans**

Flaxseed is one of the richest plant sources of lignans, providing up to 800 times more lignans than most other foods. Lignans are phytoestrogens – compounds that have been shown in studies of animals and in early human clinical trials to help protect against certain kinds of cancer, particularly cancers of the breast and colon, by blocking tumour formation<sup>1</sup>.



## A Health Claim for Flaxseed

For more detailed information and health tips go to:



The health-promoting components in flaxseed are associated with improved cardiovascular health. In fact, in 2014, Health Canada approved a health claim linking eating ground whole flaxseed to blood cholesterol lowering, a major risk factor for heart disease<sup>2</sup>. The claim is only one of eleven approved in Canada. An example of the permitted claim for ground flaxseed is: **“16 g (2 tablespoons) of ground flaxseed supplies 40% of the daily amount shown to help lower cholesterol”**. The “daily amount” referred to in the claim is 40 g (5 tablespoons) of ground whole flaxseed to be consumed over three eating occasions in the day.

## Other health benefits of flaxseed

The omega-3 fatty acids play a balancing role in the body. They correct imbalances in modern diets that lead to health problems. Nutritionists caution that the amount of omega-3 fatty acids eaten in North America no longer meets our bodies’ needs. You can balance your consumption of fatty acids by adding flaxseed to your diet.



**A lower risk for heart disease.** Flaxseed is the richest plant source of ALA. Studies show that flaxseed may reduce the risk of heart disease by preventing the buildup of harmful deposits in arteries<sup>3</sup>. In studies in which large groups of people were assessed to determine disease trends, increasing the ALA content of the diet corresponded to a decrease in risk of stroke and heart disease<sup>4</sup>. Flaxseed can assist in normalizing blood pressure<sup>5</sup>. And along with fibre, lignans and other antioxidants, ALA can reduce blood cholesterol - as supported by Health Canada - which may also lower the risk of heart disease.

**Reduction of cancer risk.** The link between diet and cancer is well known. Flaxseed lignans, in particular may be protective against some cancers (such as prostate, breast, lung and colon) because of their antioxidant activities and ability to reduce tumor number and blood vessel growth<sup>1,6</sup>.

**Help with immune disorders.** Lignans and ALA in flaxseed help to reduce inflammation that affects the body’s immune system<sup>1,7</sup>. Thus, flaxseed may be useful in reducing the risk of such immune disorders as rheumatoid arthritis and psoriasis.

**Diabetes.** Flaxseed has been shown to lower fasting blood glucose and glycated hemoglobin (HbA1c) and thus may be helpful in the management of diabetes mellitus<sup>8</sup>. In overweight or obese individuals with pre diabetes, flaxseed intake decreased glucose and insulin levels and improved insulin use<sup>9</sup>.

Form of flaxseed	Weight (g)	Common measure	Energy (Kcal)	Total fat (g)	ALA (g)	Protein (g)	Total CHQ (g)	Total dietary fibre (g)
<b>Proximate Analysis</b>	100	-	450	41.0	23.0	20.0	29.0	28.0
<b>Whole seed</b>	180	1 cup	810	74.0	41.0	36.0	52.0	50.0
	11	1 tbsp	50	4.5	2.5	2.2	3.0	3.0
	4	1 tsp	18	1.6	0.9	0.8	1.2	1.1
<b>Milled seed</b>	130	1 cup	585	53.0	30.0	26.0	38.0	36.0
	8	1 tbsp	36	3.3	1.8	1.6	2.3	2.2
	2.7	1 tsp	12	1.1	0.6	0.5	0.8	0.8
<b>Oil</b>	100	-	884	100.0	57.0	-	-	-
	14	1 tbsp	124	14.0	8.0	-	-	-
	5	1 tsp	44	5.0	2.8	-	-	-

Based on a proximate analysis conducted by the Canadian Grain Commission. Fat content determined using the American Oil Chemists’ Society (AOCS) Official Method Am 2 – 93. Moisture content of 7.7%. ALA = Alpha-linolenic acid, the essential omega-3 fatty acid. CHO = Carbohydrate. Total Carbohydrate includes sugars and starches (1g) and total dietary fibre (28g) per 100g flax seeds. (Source: Morris D.H. Flax: A health and nutrition primer. Winnipeg: Flax Council of Canada; 2003. p. 11).



## Adding flaxseed to your diet

Flaxseed adds a pleasant, nutty taste to foods. You can buy it by the scoop, vacuum pack, bottle or capsule or find it in some favourite foods. Here are some ways to use flaxseed.



**Whole flaxseeds** add **colour and crunch to foods**. You can sprinkle flaxseeds on top of home baking or mix them into a dough. However, to obtain maximum health benefit from flaxseed, you should first grind the seeds because whole seeds will pass through your system undigested.



Grinding whole seeds breaks their tough outer skin, creating a light-coloured powder. **Milled flaxseed** is sold in a vacuum package or you can prepare it yourself in a coffee grinder. **Sprinkle milled flaxseed on cereal or add it to doughs, batters, casseroles and other cooked foods.**



**Flaxseed oil** is sold in bottles. The oil is extracted from whole flaxseeds using a cold-press process especially developed for plant oils. **Pour flaxseed oil on fresh salads.** Flaxseed oil provides ALA but no fibre or lignans.



Flaxseed oil is also available in **gel capsules** and sold as a dietary supplement.



**Omega-3 enriched eggs** contain extra omega-3 fatty acids from flaxseed fed to hens. You can use omega-3 eggs wherever you would use regular eggs – there's no taste difference, only nutrition enrichment. If eaten on a regular basis, **omega-3 enriched eggs make a substantial contribution to your need for omega-3 fatty acids.** The caloric value and protein content of omega-3 enriched eggs are similar to that of regular eggs.



**Omega-3 enriched foods**, such as yogurt and milk, may contain flaxseed oil, while flaxseed baked goods, such as breads, can include milled or whole flaxseed.

## How much flax to eat

Like any high fibre food, flaxseed may upset your digestion if you add too much, too quickly. Healthy people should consume 5-10g (1-2 tsp) of flaxseed oil or 8-16g (1-2 Tbsp.) of milled flaxseed as part of a balanced diet.



**For individuals at risk of developing, or who have heart disease, a daily intake of 40g (5 Tbsp.) of milled flaxseed is recommended by Health Canada.**

## Storing Flaxseed

### Whole Flaxseed:

You can store whole flaxseed, which is clean, dry and of good quality, at room temperature for up to a year.

### Milled Flaxseed:

To keep flaxseed fresh, you should grind it as you need it. You can keep milled flaxseed refrigerated in an airtight, opaque container for up to 30 days.

## Flaxseed substitutions in foods

**Fat or Oil Substitution Instructions:** Use a 3:1 ratio when substituting flaxseed for oil in a recipe. For example, 3 tablespoons of milled flaxseed can replace 1 tablespoon of butter, margarine, shortening or vegetable oil.

**Egg Substitution Instructions:** For every egg being replaced, mix 1 tablespoon milled flaxseed with 3 tablespoons water in a small bowl and let sit for one or two minutes. The mixture will become gel-like. Add to your recipe as you would an egg.



1 tablespoon  
milled flax

+



3 tablespoons  
water



= 1 egg

## References

<sup>1</sup> Adolphe JL, et al. Br J Nutr. 2010;103:929-938.

<sup>2</sup> Health Canada. 2014. Summary of Health Canada's Assessment of a Health Claim about Ground Whole Flaxseed and Blood Cholesterol Lowering [http://www.hc-sc.gc.ca/fn-an/alt\\_formats/pdf/label-etiquet/claims-reclam/assess-evalu/flaxseed-graines-de-lin-eng.pdf](http://www.hc-sc.gc.ca/fn-an/alt_formats/pdf/label-etiquet/claims-reclam/assess-evalu/flaxseed-graines-de-lin-eng.pdf).

<sup>3</sup> Francis AA, et al. Am J Physiol Heart Circ Physiol. 2013; 304: H1743-51.

<sup>4</sup> Pan A, et al. Am J Clin Nutr. 2012;96:1262-1273.

<sup>5</sup> Rodriguez-Leyva D, et al. Hypertension 2013;62:1081-1089.

<sup>6</sup> Flower G, et al. Inter. Canc. Ther. 2013;13(3):181-192.

<sup>7</sup> Hutchins AM, et al. Nutr. Res. 2013; 33(5):367-75.

<sup>8</sup> Mani UV, et al. J. Diet. Suppl. 2011; 8(3):257-65.

<sup>9</sup> Winnik S, et al. Eur Heart J. 2011; 32(20):2573-84.



## Flax recipe

Maximize your flax intake with a snack that nourishes!

### Banana BlueBerry Loaf!

325 mL	All-purpose sifted flour	1 1/3 cup
150 mL	Milled flax*	2/3 cup
12 mL	Baking powder	2 1/2 tsp
2 mL	Salt	1/2 tsp
75 mL	White sugar	1/3 cup
1	Egg	1
250 mL	Banana, mashed	1 cup
175 mL	Skim milk	3/4 cup
5 mL	Lemon zest	1 tsp
175 mL	Frozen unsweetened wild blueberries	3/4 cup
75 mL	Pecans (optional)	1/3 cup

\* Mill flax seeds in a coffee grinder to make a light, granular powder

#### Single Serving Nutrient Values

Calories	153.2
Fat	4.9g
Saturated	0.5g
Monounsaturated	1.99g
Polyunsaturated	2.1g
Omega-3	1.0g
Cholesterol	13.6mg
Sodium	188.0 mg
Carbohydrates	24.6g
Fibre	2.9g
Folate	59.0 DFE*
Protein	4.0g

\* Folate intake is measured in micrograms (µg) of dietary folate equivalents (DFE).

#### Method

- Preheat oven to 180°C (350°F).
- In medium-sized bowl, mix flour, milled flax, baking powder and salt; set aside.
- In a separate bowl, beat together sugar and egg until sugar is dissolved.
- Add to this mix, mashed banana, skim milk, and lemon zest. Mix well.
- Add in dry ingredients, and fold until moistened.
- Fold in blueberries and pecans.
- Turn batter into a lightly greased 11.5 cm x 21.5 cm ( 4 1/2" x 8 1/2" ) loaf pan.
- With a spatula or the back of a spoon, level batter in pan.
- Bake for 60 minutes, or until an inserted toothpick comes out clean.
- Cool on a wire rack for 5 minutes. Remove loaf from pan and cool to room temperature.

**Yield: 1 loaf: 14 slices (1.27 cm (1/2" thick).**

**Serving size: 1 slice**

**Flax Content: 8.5% flax or 5.7g per serving**





**TAB 5**

**FINANCIAL RESOURCES, PROGRAMS AND SERVICES**



# Financial Resources for Local Market Producers and Processors - Compilation Document (Background)

## Updated December 2016

### Background:

Accessing financial resources/capital can often be a challenge for Alberta's local market producers and small scale processors. Challenges can include:

- Lack of awareness of financial organizations and programs
- Limited understanding of the organization and the resources or programs offered
- Conventional credit policy and funding programs designed to serve primary agriculture or export-driven agricultural operations may not meet the specific needs of local market producer and processor operations (i.e.: farm direct, farmers' markets, CSA operations, Organic, Urban agriculture, SPIN farming, etc.)
- Limited number of programs and resources that address various unique needs of these operations. (i.e.: new or immigrant farmers, small loans, unconventional market channels or production practices)

As part of Explore Local's (EL) goal to position our clients to successfully access appropriate financing, an environmental scan of local market producer and small scale processor friendly resources in the areas of finance and community investment was originally conducted in 2014 and has been updated for 2016.

The information gathered in the environmental scan has been used to strategically position EL's finance and community investment efforts and extension activities. In addition, by compiling the information in a quick reference format and providing it to EL clients and to the Agriculture and Forestry staff who work closely with local market producers and processors, we hope to have increased awareness and accessibility of appropriate funding options.

This document briefly describes a number of programs that may assist local market producers and small scale processors to access capital. This document is not intended to be a comprehensive list of all available programs that may be of assistance, but rather as starting point to build from. Chartered banks were not included in this listing. Only the most relevant programs from organizations have been listed. Each program is categorized, has a brief description and includes eligibility, amount, special characteristics and organization contact information. Please direct any inquiries to Vince Ohama at ([vince.ohama@gov.ab.ca](mailto:vince.ohama@gov.ab.ca)).



# Financial Resources for Local Market Producers and Processors - Compilation Document

Updated December 2016 - Page 2 of 25

## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001-)	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
LOAN	AgriInnovation Program-Enabling Commercialization	Interest free loan to facilitate the pre-commercial demonstration, commercialization and adoption of innovative agri-based products, technologies, processes or services.	Applicants must demonstrate: <ul style="list-style-type: none"> <li>• Innovative aspect of the proposed product, process, technology or service</li> <li>• Technical feasibility and readiness for market of the innovation</li> <li>• Sufficient evidence from the market to support the need and demand for the innovation</li> <li>• Managerial capability to successfully complete the project</li> <li>• The financial capacity to complete the project and to repay the contribution</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 50% of the project costs</li> <li>• Maximum of ten million per project</li> </ul>	✓	✓	✓						Agriculture and Agri-Food Canada agr.gc.ca 1-855-773-0241
LOAN	Advance Payment Program (AAP)	Financial loan guarantee program that gives producers access to credit through cash advances. These advances are delivered under a number of producer organizations. A list of the organizations can be found on the website.	<ul style="list-style-type: none"> <li>• A corporation, co-operative, or partnership of which the majority of interest is held by Canadian citizens or permanent residents</li> </ul> <p>In addition, the producer or one of the producer's individual interest holders:</p> <ul style="list-style-type: none"> <li>• Must be of the age of majority in the province of operation</li> <li>• Must be principally occupied in farming</li> <li>• Must own the agricultural product</li> <li>• Must be responsible for its marketing</li> </ul>	<ul style="list-style-type: none"> <li>• Cash advance rate cannot exceed 50% of the average market price that the minister estimates will be payable to producers of the agricultural product in that area</li> <li>• Maximum cash advance available to each producer is \$400,000</li> </ul>		✓	✓						Agriculture and Agri-Food Canada agr.gc.ca 1-888-346-2511
LOAN	Canadian Agricultural Loans Act Program	Loan guarantee program farmers can use to establish, improve, and develop farms; agricultural co-operatives may also access loans to process, distribute or market	<ul style="list-style-type: none"> <li>• Meet the definition of a farmer and farming (as defined by the act and available online)</li> <li>• Purpose of the loan must be eligible under program</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum \$500,000 for land and the construction or improvement of buildings</li> <li>• Maximum \$350,000 for all other loan purposes</li> </ul>	✓	✓	✓						Agriculture and Agri-Food Canada agr.gc.ca 1-888-346-2511

# Financial Resources for Local Market Producers and Processors - Compilation Document

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Type	Program Name	Description	Eligibility	Amount	Special Characteristics									Organization	
					Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding			
LOAN	Alberta Farm Loan Program	Financing to start, develop, and grow farming operations (purchase land, equipment, machinery, breeding livestock, production quota, etc.). There is also a beginning farmer incentive.	<ul style="list-style-type: none"> <li>Canadian citizens or landed immigrants who meet Alberta residency requirements and who are primary agriculture producers</li> <li>At the time of application (and renewal), the borrower must have a satisfactory credit rating as determined by AFSC</li> </ul>	Varies	✓							✓			Agriculture Financial Services Corporation afsc.ca 1-877-899-2372
LOAN	Capital Sourcing	For the expansion of agriculture, agri-business, and small business enterprises in Alberta. AFSC works with other lenders to find available capital.	<ul style="list-style-type: none"> <li>Canadian citizens or landed immigrants who meet Alberta residency requirements and who are primary agriculture producers</li> <li>At the time of application (and renewal), the borrower must have a satisfactory credit rating as determined by AFSC</li> </ul>	Varies	✓	✓									Agriculture Financial Services Corporation afsc.ca 1-877-899-2372
LOAN	Commercial Loan Program	Can use loan to start, expand, purchase, or upgrade facilities, equipment, or other capital assets needed for applicants' commercial enterprises.	<ul style="list-style-type: none"> <li>Canadian citizens or landed immigrants who meet Alberta residency requirements and who are primary agriculture producers</li> <li>At the time of application (and renewal), the borrower must have a satisfactory credit rating as determined by AFSC</li> </ul>	<ul style="list-style-type: none"> <li>Maximum loan to any individual, group of connected individuals, or companies is \$5 million.</li> </ul>	✓										Agriculture Financial Services Corporation afsc.ca 1-877-899-2372
LOAN	Value Added & Agribusiness Program (VAAP)	Designed to provide enterprises with suitable financing to start, develop and grow their business	VAAP loans are available to Canadian citizens or landed immigrants who meet Alberta residency requirements. Companies must be incorporated in Canada and registered to conduct business in Canada	The maximum loan amount to an individual or any group of connected individuals or companies is \$5 million. If you qualify, you can re-borrow up to a maximum limit as loans are paid down or repaid.											Agriculture Financial Services Corporation afsc.ca 1-877-899-2372
LOAN	Revolving Loan Program	Revolving term loan capital.	<ul style="list-style-type: none"> <li>Canadian citizens or landed immigrants who meet Alberta residency requirements and who are primary agriculture producers</li> <li>At the time of application (and renewal), the borrower must have a satisfactory credit rating as determined by AFSC</li> </ul>	Varies	✓	✓									Agriculture Financial Services Corporation afsc.ca 1-877-899-2372

# Financial Resources for Local Market Producers and Processors - Compilation Document

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
LOAN	Specific Loan Guarantee Program	Financing with specific loan guarantee. Loan enables applicants to obtain financing from another lender. Applicants must apply through a participating lender.	<ul style="list-style-type: none"> <li>Canadian citizens or landed immigrants who meet Alberta residency requirements and who are primary agriculture producers</li> <li>At the time of application (and renewal), the borrower must have a satisfactory credit rating as determined by AFSC</li> </ul>	Varies		✓	✓						Agriculture Financial Services Corporation afsc.ca 1-877-899-2372
LOAN	Equity Agri-Plan Loans	Line of credit that can be used for day-to-day operating expenses or for purchase of capital assets.	<ul style="list-style-type: none"> <li>Actively involved in the management of farming</li> </ul>	Not specified	✓	✓							ATB Financial atb.com 1-855-951-4912
LOAN	Evergreen Line of Credit	Applicant can use to advance separate loans throughout the year to pay for capital purchases. Use your line of credit to: <ul style="list-style-type: none"> <li>Purchase equipment for your farming or ranching operation</li> <li>Acquire breeding stock</li> <li>Purchase quota</li> <li>Purchase land</li> </ul>	<ul style="list-style-type: none"> <li>Actively involved in the management of farming</li> </ul>	Not specified	✓								ATB Financial atb.com 1-855-941-4912
LOAN	Farmland Financing	Purchase land, buildings, livestock, inventory, equipment and more.	<ul style="list-style-type: none"> <li>Must be land secured by an applicant</li> <li>Purchase must be used for agriculture purposes</li> </ul>	Not specified	✓								ATB Financial atb.com 1-855-941-4912
LOAN	Long Term Loans	Loan for construction/improvement of farm buildings, farmland purchases, or the purchases of other long term capital assets. There are options of monthly, quarterly, semi-annual or annual payments.	<ul style="list-style-type: none"> <li>Actively involved in the management of farming</li> </ul>	Not specified	✓								ATB Financial atb.com 1-855-941-4912

# Financial Resources for Local Market Producers and Processors - Compilation Document

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Type	Program Name	Description	Eligibility	Amount	Special Characteristics								Organization	
					Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding		
LOAN	Alberta Boostr	Crowd donations to a project, for Alberta only, businesses can normally get up to \$10,000 if successful but one recently closed for \$58K, the crowd-funded business must have a reward offer to each donator these can be tee-shirts, coffee mugs, product etc., and crowd-funded monty received can be levered as security for a loan. If you don't meet your goal you don't receive anything.		Normally can get up to \$10,000 if successful.									✓	ATB Financial atb.com 1-855-941-4912
LOAN	Operating Loans	Designed for businesses with borrowing needs in excess of \$50,000. If less than this amount they use a credit card which is more feasible for the customer in the way of bank charges and fees. Provides a cash reserve needed for day-to-day operations. Use loan to: • Finance accounts receivable • Cover daily operating expenses • Take advantage of supplier discounts		Not specified		✓								ATB Financial atb.com 1-855-941-4912

# Financial Resources for Local Market Producers and Processors - Compilation Document

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
LOAN	Short and medium-term loans	Short and medium-term loans for: <ul style="list-style-type: none"> <li>• Breeding stock</li> <li>• Machinery and equipment</li> <li>• Trucks and motor vehicles</li> <li>• Construction or improvement of farm buildings</li> <li>• Rare breeds</li> <li>• Grain storage and handling facilities</li> <li>• Farmland purchases</li> </ul>	<ul style="list-style-type: none"> <li>• Actively involved in farming</li> </ul>	Not specified	✓								ATB Financial atb.com 1-855-941-4912
LOAN	4-H Loan Programs	Provides support to 4-H club members by loaning money for the purchase of marketable livestock - beef, swine, sheep, meat goats and horses - or other approved projects.	<ul style="list-style-type: none"> <li>• Applicant must be a member of a 4-H club</li> <li>• Must have a co-signature from a parent or guardian</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum of \$5,000</li> </ul>	✓					✓	✓		ATB Financial atb.com 1-855-941-4912
LOAN	Alberta Women Entrepreneurs (AWE) Loan Program	AWE financing can help women in Alberta purchase a business, start a new business, or grow an existing business.	<ul style="list-style-type: none"> <li>• Business must be 51% owned, operated, and controlled by a woman or women</li> <li>• 18 years of age or older</li> <li>• Canadian citizens or permanent residents residing in Alberta</li> <li>• Business must operate, be headquartered and pays taxes in Alberta</li> <li>• Borrower must be in good standing with AWE on any</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum of \$150,000</li> </ul>	✓	✓							Alberta Women Entrepreneurs (AWE)/Western Economic Diversification Canada awebusiness.com 1-800-713-3558



# Financial Resources for Local Market Producers and Processors - Compilation Document

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
LOAN	Ag Term Loans	Term loans to purchase breeding stock and new or used machinery and equipment.	<ul style="list-style-type: none"> <li>Chinook Credit union's credit investigation procedures</li> </ul>	Not specified	✓								Chinook Credit Union chinookcu.com 403-362-4233 (Brooks)
LOAN	Ag Mortgage Loans	Mortgage loans to purchase land, buildings, and improvements, or for reorganization of the farm enterprise.	<ul style="list-style-type: none"> <li>Chinook Credit Union's credit investigation procedures</li> </ul>	<ul style="list-style-type: none"> <li>Up to 75% of the current appraised value or purchase price, whichever is less.</li> </ul>	✓								Chinook Credit Union chinookcu.com 403-362-4233 (Brooks)
LOAN	BizAble Business Loan	Financing for individuals with disabilities.	<ul style="list-style-type: none"> <li>Alberta businesses in rural areas; located outside main cities Edmonton (including St. Albert) and Calgary</li> <li>Applicant must contact a bank first, if they are unable to secure financing under reasonable terms elsewhere, then they may be eligible for financing through Community Futures</li> </ul>	<ul style="list-style-type: none"> <li>Loans from \$10,000 to \$150,000</li> <li>Applicant must make a personal investment, cash plus security (vehicles, equipment, land etc.) to back the loan</li> </ul>	✓	✓		✓					Community Futures cfna.albertacf.com 1-877-482-3672
LOAN	BizBuyout Business Loan	Financing to buy an established business.	<ul style="list-style-type: none"> <li>Alberta businesses in rural areas (located outside the cities of Edmonton (including St. Albert) and Calgary)</li> <li>Applicant must contact a bank first, if they are unable to secure financing under reasonable terms elsewhere, then they may be eligible for financing through Community Futures.</li> </ul>	<ul style="list-style-type: none"> <li>Loans from \$10,000 to \$150,000</li> <li>Security required</li> </ul>	✓	✓		✓					Community Futures cfna.albertacf.com 1-877-482-3672

# Financial Resources for Local Market Producers and Processors - Compilation Document

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Type	Program Name	Description	Eligibility	Amount	Special Characteristics								Organization	
					Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding		
LOAN	Franchise Route Business Loan	Financing to franchise a business.	<ul style="list-style-type: none"> <li>Alberta businesses in rural areas; located outside main cities Edmonton (including St. Albert) and Calgary</li> <li>Applicant must contact a bank first, if they are unable to secure financing under reasonable terms elsewhere, then they may be eligible for financing through Community</li> </ul>	<ul style="list-style-type: none"> <li>Loans from \$10,000 to \$150,000</li> <li>Security required</li> </ul>	✓	✓			✓					Community Futures cfna.albertacf.com 1-877-482-3672
LOAN	NewBiz Business Loan	New business start-up financing..	<ul style="list-style-type: none"> <li>Alberta businesses in rural areas located outside of the metropolitan areas of the Edmonton Capital Region and Calgary.</li> <li>Applicant unable to secure financing under reasonable terms from a financial institution may be eligible to apply for financing through Community Futures.</li> </ul>	<ul style="list-style-type: none"> <li>Loans up to \$150,000</li> <li>Security required</li> </ul>	✓	✓					✓			Community Futures cfna.albertacf.com Toll-free 1-877-482-3672
LOAN	NextGen Business Loan	Financing for entrepreneurs 18-39 years of age.	<ul style="list-style-type: none"> <li>Alberta businesses in rural areas located outside of the metropolitan areas of the Edmonton Capital Region and Calgary.</li> <li>Applicant unable to secure financing under reasonable terms from a financial institution may be eligible to apply for financing through Community Futures.</li> </ul>	<ul style="list-style-type: none"> <li>Loans up to \$150,000</li> <li>Security required</li> </ul>	✓	✓					✓			Community Futures cfna.albertacf.com Toll-free 1-877-482-3672
LOAN	Extended Disbursement Capacity Builder Loan	Can be used to purchase quota or breeding livestock with pre-approved financing for up to 18 months and the option to capitalize interest.	Depends on: <ul style="list-style-type: none"> <li>Credit history</li> <li>Repayment ability</li> <li>Security</li> </ul>	Varies	✓									Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301
LOAN	Extended Disbursement Construction Loan	Interim financing with ability to defer principal payments up to 18 months on construction projects.	Depends on: <ul style="list-style-type: none"> <li>Credit history</li> <li>Repayment ability</li> <li>Security</li> </ul>	Varies	✓									Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301

# Financial Resources for Local Market Producers and Processors - Compilation Document

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
LOAN	Extended Disbursement - Enviro-Loan	Applicants can defer principle payments while constructing, improving, or expanding their operation when they improve environmental facilities.	Depends on: <ul style="list-style-type: none"> <li>• Credit history</li> <li>• Repayment ability</li> <li>• Security</li> </ul>	Varies	✓								Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301
LOAN	Extended Disbursement - Transition Loan	Special payment options that benefit both the buyer and seller in a farm transfer.	Depends on <ul style="list-style-type: none"> <li>• Credit history</li> <li>• Repayment ability</li> <li>• Security</li> </ul>	Varies	✓					✓			Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301
LOAN	Leasing - Equipment Leasing	Lease new or used equipment at select dealerships.	Depends on <ul style="list-style-type: none"> <li>• Credit history</li> <li>• Repayment ability</li> <li>• Security</li> </ul>	Varies	✓								Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301
LOAN	Niche - Energy Loan	Financing to convert to renewable energy sources , specifically biogas, geo-thermal, wind or solar power.	Depends on <ul style="list-style-type: none"> <li>• Credit history</li> <li>• Repayment ability</li> <li>• Security</li> </ul>	Varies	✓								Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301
LOAN	Niche - Performer Loan	Based on performance of business; applicant receives lower interest rates when their business achieves pre-set financial goals and ratios.	Depends on <ul style="list-style-type: none"> <li>• Credit history</li> <li>• Repayment ability</li> <li>• Security</li> </ul>	Varies	✓								Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301
LOAN	Niche - Spring Break Loan	Applicant can match their payment schedule to the forestry harvesting season.	Depends on <ul style="list-style-type: none"> <li>• Credit history</li> <li>• Repayment ability</li> <li>• Security</li> </ul>	Varies	✓								Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301

# Financial Resources for Local Market Producers and Processors - Compilation Document

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
LOAN	Niche- Young Farmer Loan	Financing for farmers under 40 years of age for purchase of agriculture-related assets.	Depends on: <ul style="list-style-type: none"> <li>• Applicant under 40 years of age</li> <li>• Credit history</li> <li>• Repayment ability</li> <li>• Security</li> </ul>	• Maximum of \$500,000	✓					✓			Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301
LOAN	Standard - Personal Property	Financing for personal property: <ul style="list-style-type: none"> <li>• Crop Inputs</li> <li>• Feeder cattle and breeding livestock</li> <li>• Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Credit history</li> <li>• Repayment ability</li> <li>• Security</li> </ul>	Varies	✓	✓							Farm Credit Canada fcc-fac.ca Toll-free 1-888-332-3301
LOAN	Canada Small Business Financing Program (CSBFP)	CSBFP is a federal program used by commercial lenders to reduce their risk exposure to qualifying small and medium-size business loans. The CSBFP registration fee is 2% of the total amount of the	Applicants eligible to apply: <ul style="list-style-type: none"> <li>• Start-ups and existing for-profit businesses in Canada with gross revenues of \$10 million or less.</li> <li>• Farming business are not eligible under this program.</li> </ul>	• Up to \$1 million, of which no more than \$350,000 is for equipment purchases or leasehold improvements.	✓	✓							Innovation, Science and Economic Development Canada ic.gc.ca Toll-free 1-866-959-1699
LOAN	Immigrant Access Fund	For immigrants who want to work in their professional field in Canada. Momentum in partnership with Immigrant Access Fund Society, can provide a micro loan to help pay for applicant's Canadian accreditation, training or upgrading costs. Microloans are available for skilled workers as well as professionals.	<ul style="list-style-type: none"> <li>• Immigrants living in Alberta</li> <li>• Be a Canadian citizen, permanent resident or convention refugee (protected person)</li> <li>• Have worked in another country in the field applicant wishes to return to (this program is not to help you start a new career)</li> <li>• Be ability to work in applicant's field in English</li> <li>• Have a plan that sets out what you must do to be able to work in applicant's field</li> <li>• Be accepted into the program applicant is applying the loan toward (if applicable)</li> <li>• Complete an application and satisfy all</li> </ul>	• Maximum of \$10,000					✓	✓			Momentum/Thrive momentum.org 403-272-9323

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
LOAN	FundAbility Loans	For entrepreneurs with a permanent disability. Character based loans that provide financing where banks and lending institutions will not.	<ul style="list-style-type: none"> <li>• Have a permanent disability, live in Calgary, and have a reasonable business idea</li> <li>• No undischarged bankruptcies and completed one of Momentum's business training programs</li> <li>• Ability to start a business</li> <li>• Are unable to access conventional business financing</li> </ul>	<ul style="list-style-type: none"> <li>• Up to \$10,000 for a first-time loan.</li> <li>• Eligible for additional funding after successful repayment.</li> </ul>	✓	✓			✓		✓		Momentum/Thrive momentum.org 403-272-9323
LOAN	Micro Business Loans	Loan to help start or expand a business. The loan can be used for business costs such as: licensing and registration, tools or equipment, advertising and inventory.	<p>Loans are based on:</p> <ul style="list-style-type: none"> <li>• Character of applicant</li> <li>• The business plan</li> <li>• Commitment to operating a successful business</li> <li>• Have a reasonable business idea,</li> <li>• Live in Calgary</li> <li>• Do not have any undischarged bankruptcies</li> <li>• Have completed one of Momentum's business training programs</li> <li>• Are ready, willing and able to start a business,</li> <li>• Are unable to access traditional</li> </ul>	<ul style="list-style-type: none"> <li>• Up to \$7,500 for an initial loan.</li> <li>• Eligible for additional funding after successful repayment.</li> </ul>	✓	✓			✓	✓	✓		Momentum/Thrive momentum.org 403-272-9323
LOAN	Value Added & Agribusiness Program (VAAP)	Loans to start, expand, purchase or upgrade facilities, equipment, or other capital assets for your business. VAAP also covers working capital expenditures, including training costs, that support new or expanded operations, products for value added, or agribusiness enterprises and change of ownership.	<ul style="list-style-type: none"> <li>• Available to Canadian citizens or landed immigrants who meet Alberta residency requirements</li> <li>• Companies must be incorporated in Canada and registered to conduct business in Alberta</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum loan to an individual, group of connected individuals, or companies is \$5 million</li> </ul>	✓	✓							Agriculture Financial Services Corporation afsc.ca 1-877-899-2372

# Financial Resources for Local Market Producers and Processors - Compilation Document

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Type	Program Name	Description	Eligibility	Amount	Special Characteristics								Organization		
					Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding			
GRANT	<b>AgriInnovation Program-Knowledge Creation and Transfer</b>	For research and development and applied projects where the commercialization is three to seven years away.	<ul style="list-style-type: none"> <li>• Agri-businesses or food processors</li> <li>• Co-operatives</li> <li>• Industry associations and farming organization</li> </ul>	<ul style="list-style-type: none"> <li>• Grant funding of up to 50% of project</li> <li>• Maximum of four million</li> </ul>	✓	✓									Agriculture and Agri-Food Canada agr.gc.ca 1-855-773-0241
GRANT	<b>Agricultural Processing Industry Summer Employment Program</b>	Processors who hire a student for the summer will be reimbursed for one-third of the employee's salary.	<ul style="list-style-type: none"> <li>• Employers must own or rent a farming operation in Alberta, and must produce farm commodities valued at minimum \$25,000/annually</li> <li>• Applicant must be available to supervise their employees full time</li> </ul>	<ul style="list-style-type: none"> <li>• Up to \$500 per month for salary</li> <li>• Maximum \$2,000</li> </ul>		✓									Alberta Agriculture and Rural Development agric.gov.ab.ca 310-FARM(3276)
GRANT	<b>Workforce Development Program</b>	Grant to assist agri-business managers recruit workers outside of Alberta, reduce worker turnover through the development of retention strategies, and assess and adopt technologies and processes to increase worker	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• Processors</li> <li>• Agricultural organizations</li> </ul>	<ul style="list-style-type: none"> <li>• Reimburse 50% of eligible expenses incurred by a successful applicant in completing the approved project, per applicant in a fiscal year</li> <li>• Maximum \$25,000</li> </ul>		✓									Alberta Agriculture and Rural Development agric.gov.ab.ca 310-FARM(3276)
GRANT	<b>ACIDF - Research and Development Program</b>	Provide resources to increase the competitiveness of Alberta's farmers through leadership in innovation, market development, and research. Support a mix of large and small projects, especially in areas not receiving adequate attention and support from other	Proposals that meet: <ul style="list-style-type: none"> <li>• Increased value-chains, new business and markets</li> <li>• Increased diversification in the crop sector</li> <li>• Increased consumer confidence in food production</li> </ul>	<ul style="list-style-type: none"> <li>• Grants range from \$10,000 to \$200,000 over the life of applicant's project</li> </ul>		✓									Alberta Crop Industry Development Fund acidf.ca 403-782-8034

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
GRANT	Commercialization Associates program	Enables companies to recruit skilled business professionals.	<ul style="list-style-type: none"> <li>Alberta companies that recruit experienced business professionals to lead to stronger technology commercialization for the benefit of the company and Alberta's economy</li> <li>Open competitions are held four times per year</li> </ul>	<ul style="list-style-type: none"> <li>Annual stipend of \$70,000 (a minimum); with contributions of \$55,000 from Technology Futures and \$15,000 (minimum) from the company, for up to two years and an annual commercialization allowance of \$7,000 from Technology Futures to cover qualified costs for travel and marketing intelligence</li> <li>Maximum funding</li> </ul>		✓							Alberta Innovates Technology Futures albertatechfutures.ca 780-450-5333
GRANT	Product Demonstration Program	Grant will assist in the commercialization phase of development. Can help businesses demonstrate their new products or services in a real-life, end-user environment.	<ul style="list-style-type: none"> <li>Gross revenues for the preceding fiscal year must not exceed \$50 million</li> <li>Less than 500 full time employees, including affiliates</li> <li>Exist as a provincially, extra-provincially or federally registered corporation or partnership which has legal status to operate in Alberta, and retains a significant physical presence in Alberta</li> <li>Must be a technology-driven business developing innovative new products or services for growing markets</li> <li>At least 51% owned and controlled by one or more individuals who are citizens of, or permanent residents of, Canada</li> <li>Does not have an outstanding balance or</li> </ul>	<ul style="list-style-type: none"> <li>Ranges from \$100,000 to \$300,000</li> </ul>	✓	✓							Alberta Innovates Technology Futures albertatechfutures.ca 780-450-5333
GRANT	Industry and Market Development Program	Grant to support the business, market, and capacity development in livestock and meat industry. Areas of support are: consumer awareness, competitiveness and profitability, domestic and international market development and leadership	<ul style="list-style-type: none"> <li>Alberta agri-businesses that produce and market Alberta meat products</li> <li>Industry organizations serving the livestock industry</li> <li>Educational institutions</li> <li>Government organizations and agencies</li> </ul>	<ul style="list-style-type: none"> <li>Total of \$4 million is available (amount varies by year, this is the 2013/2014 amount)</li> <li>Eligible expenses will be funded to maximum of 50% for agri-business applicants to a maximum of \$500,000</li> </ul>		✓							Alberta Livestock and Meat Agency alma.alberta.ca 780-638-1699

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Type	Program Name	Description	Eligibility	Amount	Special Characteristics								Organization	
					Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding		
GRANT	Research and Development Program	Grant assistance for entities innovation livestock and meat industry. Basic and applied research initiatives complementary to ALMA research priorities. Research will develop and deliver technologies, solutions, knowledge to improve competitive position of the industry.	Those who directly or indirectly participate in service and development of the Alberta livestock and meat industry: <ul style="list-style-type: none"> <li>• Industry associations serving the industry</li> <li>• Educational institutions</li> <li>• Government organizations/agencies</li> <li>• Existing or prospective Alberta companies that can increase value/sales of Alberta products</li> <li>• Existing / prospective supply</li> </ul>	<ul style="list-style-type: none"> <li>• Total of \$8 million is available for the program in the 2013/2014 amount (amount varies by year)</li> </ul>	✓	✓								Alberta Livestock and Meat Agency alma.alberta.ca 780-638-1699
GRANT	Matching Investment Fund	Grant to encourage growth and innovation in the manufacturing and use of Canadian dairy products and ingredients. Projects that emphasize use of solids non-fat (SNF) ingredient will be given priority and may be eligible for increased level of	<ul style="list-style-type: none"> <li>• Dairy processors</li> <li>• Food manufacturers</li> <li>• Food technology centers</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum \$50,000 per project for consultations</li> <li>• \$250,000 per project for product development</li> </ul>	✓	✓								Canadian Dairy Commission cdc-ccl.gc.ca 613-792-2000
GRANT	Career Focus Program	Offers a wage subsidy to hire skilled youth, to access some of the skills that can further strengthen the sector: business, marketing, design, processing, engineering, or other technical abilities.	<ul style="list-style-type: none"> <li>• Alberta food processors seeking to hire a recent post-secondary graduate</li> <li>• Participants must be post-secondary graduates in food processing or other related disciplines</li> <li>• Program manager does an eligibility assessment on potential employers</li> </ul>	<ul style="list-style-type: none"> <li>• Will reimburse 50% of the eligible wages and related expenses to hire a post-secondary graduate for a placement between 4 and 12 months</li> <li>• Maximum \$20,000</li> </ul>		✓								Food Processing HR Council fphrc.com 1-877-96FPHRC (963-7472)
GRANT	Agri-Processing Product and Market Development-Livestock/Crop	Reimbursement of certain costs related to product and market development; product development, market development, labeling, market research, business and marketing plans, consulting or coaching fees.	<ul style="list-style-type: none"> <li>• Established or new processing companies that have a manufacturing or processing presence in Alberta</li> <li>• Livestock producers in Alberta who are adding value beyond the primary production</li> <li>• Groups of livestock producers and/or value chains adding economic value to their products or services</li> </ul>	<ul style="list-style-type: none"> <li>• Reimbursement of 50% of certain costs</li> <li>• Maximum funding \$30,000</li> </ul>		✓								Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)



# Financial Resources for Local Market Producers and Processors - Compilation Document

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 - \$50,000)	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
GRANT	Business Opportunity Grant	Reimbursement between 50-75% of certain non-capital costs related to researching and planning a new business venture.	<ul style="list-style-type: none"> <li>Producers</li> <li>Agri-processors</li> <li>New industry entrants</li> <li>Groups of producers or agri-food industry associations</li> </ul>	<ul style="list-style-type: none"> <li>Established producers: reimbursed for 50% of consulting fees to maximum of \$5,000 (\$30,000 over the life of the program)</li> <li>New entrants: reimbursed 75% of consulting fees to a maximum of \$5,000 (\$30,000 over the life of the program)</li> <li>Producer groups and agri-industry associations: 75% of consulting fees</li> </ul>		✓							Growing Forward 2 growingforward.alberta.ca/ 310-FARM(3276)
GRANT	Business Management Skill Development Program	Reimbursement of eligible costs for approved business skills development training courses.	<ul style="list-style-type: none"> <li>New or established producers or agri-food processors</li> <li>Senior managers, executive directors, or directors on a board that represents an industry organization, producer group, or processor</li> <li>Groups of producers or agri-food industry associations seeking training for their organization or board members</li> </ul>	<ul style="list-style-type: none"> <li>Reimbursement of 75% of eligible costs</li> <li>Individuals can apply for multiple projects to a maximum of \$10,000 per individual over the life of the program</li> <li>Groups can apply for multiple projects to a maximum of \$20,000 per application and a maximum of \$40,000 over the life of the program</li> </ul>		✓							Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)
GRANT	Confined Feeding Operation (CFO) Stewardship	Helps livestock operations assess their potential risk to water quality, and implement practices or make improvements to positively influence water quality.	<ul style="list-style-type: none"> <li>Individuals or businesses that own and operate a confined feeding operation in Alberta</li> <li>The operation must have completed an environmental farm plan prior to applying</li> </ul>	<ul style="list-style-type: none"> <li>Varies from 30%-70% of eligible costs</li> <li>Program maximum of \$100,000 per applicant</li> <li>Some category maximums are between \$15,000 and \$50,000</li> </ul>	✓	✓							Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)

# Financial Resources for Local Market Producers and Processors - Compilation Document

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
GRANT	Food and Safety Systems Processors	Help food processors invest in new or improved food safety systems and production practices.	<ul style="list-style-type: none"> <li>Processors with facilities in Alberta</li> <li>Formally registered by federal or provincial inspection authorities</li> <li>Currently producing human food, drink or companion animal food</li> </ul>	<ul style="list-style-type: none"> <li>Reimbursement of non-capital expenses (50%) related to the implementation of approved food safety programs</li> <li>Reimbursement of capital expenses (20%) related to improving a specific food safety issue, to a maximum of \$15,000</li> </ul>	✓	✓							Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)
GRANT	Food Safety Systems Producer	To support costs of eligible activities that enhance on-farm food safety (OFFS).	<ul style="list-style-type: none"> <li>Must be enrolled/registered in their commodity specific OFFS program as of the date of application</li> <li>Producers in Alberta who have an established primary business in production of crops or livestock</li> <li>Horticulture packers directly involved in grading and packing horticultural produce for human consumption</li> <li>Honey producer-graders who produce and pack honey from apiaries located on their operation</li> </ul>	<ul style="list-style-type: none"> <li>Successful applicants are eligible for reimbursement of 70% of eligible activities</li> <li>Maximum payment is \$5,000</li> <li>Applications under \$1,000 will not be considered</li> </ul>	✓	✓							Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)
GRANT	Irrigation Efficiency	Helps producer invest in new or upgraded low-pressure centre pivot (LPCP) irrigation equipment.	<ul style="list-style-type: none"> <li>Producers who have an irrigated agricultural operation in Alberta</li> <li>Have completed a long-term irrigation management plan</li> </ul>	<ul style="list-style-type: none"> <li>Reimbursement for 40% of eligible costs</li> <li>Maximum \$5,000</li> </ul>	✓								Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)

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					Special Characteristics								
Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
GRANT	Livestock Welfare Processor	Grant to assist meat processors in improving animal handling and ensure humane slaughter at provincially or federally licensed meat and poultry facilities.	<ul style="list-style-type: none"> <li>Processors</li> <li>Licensed and operating in Alberta's red meat and poultry industries</li> <li>Including mobile processors</li> </ul>	<ul style="list-style-type: none"> <li>Up to 80% cost of humane stunning equipment</li> <li>Up to 50% cost of improved handling equipment and system</li> <li>Up to 50% of cost of staff training and education, costs associated by assessments and planning for new welfare practices</li> <li>All subject to a maximum amount</li> </ul>	✓	✓							Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)
GRANT	On-Farm Energy Management	Program shares the cost of investments that improve energy efficiency on Alberta farms.	<ul style="list-style-type: none"> <li>Producers in Alberta</li> <li>Minimum of \$10,000 farm commodity or livestock production income</li> </ul>	<ul style="list-style-type: none"> <li>Program covers 50% of eligible costs, to maximum of \$50,000</li> <li>Some items are funded on a square footage or formula basis</li> <li>Program covers 100% of cost for each applicants first three sub meters</li> </ul>	✓	✓							Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)
GRANT	On-Farm Water Management	Technical assistance to producers to complete a long-term water management plan (LTWMP) and shares the cost of related enhancements of their on-farm water supply management.	<ul style="list-style-type: none"> <li>Producers, corporations, and not-for-profit organizations with an active agricultural business in Alberta</li> <li>A minimum of \$10,000 of farm commodity production income are eligible</li> </ul>	<i>Standard Incentive Projects:</i> <ul style="list-style-type: none"> <li>Reimbursement of up to one-third of expenses, maximum of \$5,000 per applicant.</li> </ul> <i>Special Incentive Projects:</i> <ul style="list-style-type: none"> <li>Reimbursement of up to 50% of expenses to a specified maximum per applicant or project</li> </ul>	✓	✓							Growing Forward 2 growingforward.alberta.ca 310-FARM(3276)

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## Special Characteristics

Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization	
GRANT	Youth Employment Program	Provide financial assistance to hire post-secondary graduates.	<ul style="list-style-type: none"> <li>Applicant's small or medium-sized enterprise must be incorporated and for-profit</li> <li>Have 500 or less full-time equivalents</li> <li>Ready to enhance innovation capacity</li> <li>Willing to establish a trusting relationship with IRAP (Industrial Research Assistance Program)</li> </ul>	<ul style="list-style-type: none"> <li>Will help cover part of intern's salary not including fringe benefits and overhead costs</li> <li>Maximum \$30,000</li> </ul>		✓							National Research Council Canada nrc-cnrc.gc.ca/ Industrial Research Assistance Program (IRAP) 1-877-994-4727	
SOCIAL FINANCE	Alberta BoostR Crowd funding Website	Website where local businesses can get funding from their supporters. Businesses can tell their story, set funding goals and offer rewards for a boost.	<ul style="list-style-type: none"> <li>Alberta owned small to medium sized businesses</li> </ul>	<ul style="list-style-type: none"> <li>Varies - but suggested goal is under \$25,000</li> </ul>	✓	✓			✓	✓			✓	Powered by ATB Financial albertaboost.ca Contact E-mail: albertaboost@atb 1-844-392-7119
SOCIAL FINANCE	ATB LendR	Qualified applicants get a "Lift Loan" profile created on the site. Must raise 10% of the total loan amount on the site through people you know. Your profile will then be open to other LendRs. If they lift you to 50% of your loan amount, ATB provides	Small businesses that have been an ATB Business customer for at least 12 months.	Varies	✓	✓			✓	✓	✓		✓	ATB Financial atblendr.ca Email contact: info@ATBLendR.ca
SOCIAL FINANCE	Unleashing Local Capital (Opportunity Development Co-operatives)	An Opportunity Development Co-operative (ODC) is a for-profit co-operative that raises capital (locally) to invest in a local business. Investments may be RRSP eligible. Fee-based support with a range of resources	<ul style="list-style-type: none"> <li>Local community individuals and leaders</li> <li>Support for new business, expansion of business, or business succession</li> <li>The local capital the ODC collects can be invested in any viable business idea in the community</li> </ul>	<ul style="list-style-type: none"> <li>Varies - but typically under \$1 million</li> </ul>	✓	✓					✓	✓		Alberta Co-operative Association acca.coop 780-963-3766

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					Special Characteristics								
Type	Program Name	Description	Eligibility	Amount	Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding	Organization
SOCIAL FINANCE	Indiegogo Crowdfunding Site	Crowdfunding platform where people who want to raise money can create fundraising campaigns to tell their story and get word out.	<ul style="list-style-type: none"> <li>No limitations, as long as creator has a valid bank account</li> </ul>	<ul style="list-style-type: none"> <li>Varies - you choose amount to campaign for</li> <li>Fees and pricing vary</li> </ul>	✓	✓			✓	✓			Indiegogo indiegogo.com
SOCIAL FINANCE	Kickstarter Crowdfunding Site	Crowdfunding platform for creative projects. No charities, websites, apps, or self-help manuals. Staff filter projects and give advice to creator.	<ul style="list-style-type: none"> <li>18 years of age or older</li> <li>No projects that fundraise for charity or projects that offer financial incentives</li> </ul>	<ul style="list-style-type: none"> <li>Varies - you choose the amount to campaign for.</li> <li>All or nothing funding - you must achieve your funding goal or no money changes hands.</li> <li>Fees and pricing vary</li> </ul>	✓	✓				✓			Kickstarter kickstarter.com
SOCIAL FINANCE	Social Enterprise Fund	<ul style="list-style-type: none"> <li>Provides financial support in the form of loans to clients of any corporate structure in Alberta that are growing a social enterprise</li> </ul>	<ul style="list-style-type: none"> <li>Any Albertan social entrepreneur or social enterprise</li> </ul>	Varies	✓	✓					✓		Social Enterprise Fund socialenterprisefund.ca 780-756-0660
TAX CREDIT	Alberta Scientific Research and Experimental Development Tax Credit	Provincial tax credit program.	<ul style="list-style-type: none"> <li>Businesses of all sizes and sectors that conduct research and development that will lead to new, improved or technologically advanced products or processes</li> </ul>	<ul style="list-style-type: none"> <li>Tax credit up to 10%</li> <li>Maximum credit of \$400,000</li> </ul>									Treasury Board and Finance finance.alberta.ca 780-427-3035

# Financial Resources for Local Market Producers and Processors - Compilation Document

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Type	Program Name	Description	Eligibility	Amount	Special Characteristics								Organization	
					Capital	Operating	Loan Guarantee	Interest Free	Small Amount Focus (\$10,001 -	Micro Amount New Entrant/Young Farmer	Patient Capital	Crowd funding		
TAX CREDIT	Apprenticeship Job Creation Tax Credit	Help employers offset the cost of hiring and training employees who have entered into an apprenticeship contract.	<ul style="list-style-type: none"> <li>• Credit given when eligible apprentice is hired</li> <li>• An eligible apprentice is someone who is working in a prescribed trade in the first two years of their apprenticeship contract</li> <li>• Contract must be registered with a federal or provincial government</li> </ul>	<ul style="list-style-type: none"> <li>• Non-refundable tax credit equal to 10% of the eligible salaries and wages paid to apprentices in their first two years</li> <li>• Any unused credit may be carried back three years and carried forward 20 years</li> </ul>										Canada Revenue Agency cra-arc.gc.ca/ 1-800-267-6999
VENTURE CAPITAL	Verdex Capital	Venture capital group focused on ag-tech investment	<ul style="list-style-type: none"> <li>• Early stage game changing opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Varies</li> </ul>	✓	✓								Verdex Capital verdexcapital.com 403-274-2774
VENTURE CAPITAL	Accelerate Fund	Equity investment fund. Angel co-investment fund; investing in ag-research, agrivalue, and capacity building. Requires co-investment from other angels, 1:1 minimum match.	<ul style="list-style-type: none"> <li>• Well thought out business plan and marketing strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum \$50,000</li> </ul>	✓	✓						✓		AVAC avacltd.com 780-485-2411 (Edm.) 403-274-2774(Calg.)
VENTURE CAPITAL	Avrio Fund	Commercialization to growth stage companies with focus on later stage business facing exponential growth opportunities.	<ul style="list-style-type: none"> <li>• Food technology and advanced agriculture companies that are developing products and services</li> </ul>	<ul style="list-style-type: none"> <li>• Investments between 3 to 5 million</li> </ul>	✓	✓						✓		Avrio Capital avriocapital.com 403-215-5492

# Financial Resources for Local Market Producers and Processors - Compilation Document (Glossary)

Updated December 2016

**Crowdfunding:** In general terms, crowdfunding is the raising of funds through the collection of small amounts of money from the general public (known as the crowd) using the internet and social media. Crowdfunding has its origins in the concept of crowdsourcing, which is the broader concept of reaching a goal by receiving and leveraging many small contributions from various parties.

Generally crowdfunding can be broken down into 3 forms: donation/reward based, lending based, and investment/equity based. Donation/reward based crowdfunding has become an increasingly popular way to fund small businesses and projects. Most often the total campaign amount is relatively small. There tends to be less paperwork and administration involved as compared to trying to access traditional financing and since it is a donation/reward based system - very few campaigns require formal business plans, financial statements, cash flow projections, insurance documentation etc. Additionally, (in general) donation/reward based crowdfunding does not have the regulatory oversight as compared to lending based crowdfunding and equity based crowdfunding (which are both subject to securities laws.) Campaigns do still require a significant amount of work and promotion in order to be successful however potential donors do not necessarily use "traditional business metrics" to judge a campaign.

This could be of advantage to local market producers and processors who are looking to access small amounts of money for their business. Example: Crowdfunding was used by a local market agri-preneur (Starbright Farms-Buttery Bites Caramels) to raise \$3,000 via the Alberta BoostR Crowdfunding website.

Crowdfunding is a complex topic, so if you need detailed information, or have questions about crowdfunding and the application of securities laws, - contact the Alberta Securities Commission.

**Opportunity Development Coop's:** An Opportunity Development Co-operative (ODC) is a for-profit co-operative that raises capital (locally) to invest in a local business. Investment may be RRSP eligible. As excerpted from the Alberta Community Co-operatives Association (ACCA) website: "An Opportunity Development Co-operative (ODC) is formed by local leaders like yourselves. The ODC, which is registered with the provincial government as-for-profit co-operative, identifies, or is approached by, local entrepreneurs with a business opportunity in need of investment. Members of the ODC review the business plan and often provide advice about it. They then agree on the best way to assist the business with debt financing (a loan) or equity financing (land, equipment or co-owners). In some cases, the ODC may decide not to invest.

When the members of the ODC have found the opportunity they like, they collect local money by selling membership and investment shares to community members. The ODC then invests the money in the local business. Over time, the Co-op may have many share offerings, and collect local money to invest in a variety of businesses in the community. ODC members are usually the investment shareholders, too. That's because membership gives equal voting rights to each member, and eligibility to run for the Board of Directors of the Opportunity Development Co-operative.

Besides supporting the business themselves, Co-op members help out in other ways, too. Co-op members add community credibility for the business and provide word-of-mouth advertising. In some cases, you provide mentorship, or sharing of business expertise with the entrepreneurs. You also have professional networks to which you can introduce the entrepreneurs. As the business prospers and financing agreements are fulfilled with the Co-op, the value of the investment shares in the Co-op rise."

**Patient Capital:** With patient capital, the investor is willing to make a financial investment in a business with no expectation of turning a quick profit. It's often characterized by a willingness to forgo maximum financial returns for social impact, and an unwillingness to sacrifice the interests of the end customer for the sake of shareholders. Frequently has a greater tolerance for risk than traditional investment capital and longer time horizons for return of capital. There can also often be intensive support of management as they grow their enterprise. (Examples of resources that have "Patient Capital" attributes: Slow Money, ODC's, Community Bonds, Crowdfunding, etc.)

**Social Finance:** Social finance, in broad terms is best understood as a balanced or blended approach to managing money that delivers both positive societal and/or environmental benefits as well as financial returns. It is an "umbrella term" that describes a wide range of concepts like impact investing, ethical investing, socially responsible investing, patient capital and micro lending etc.

**Venture Capital:** Among the various financing options entrepreneurs can turn to when starting a new company is venture capital. Venture capital is a type of financing option entrepreneurs can make use of to access money their business and is most often utilized to help build new start-up firms that often are considered to have both high-growth and high-risk potential.

Entrepreneurs often turn to venture capitalists for money because their company is so new, unproven or risky that the more traditional forms of financing, such as through banks, aren't readily available. Unlike traditional forms of financing, with venture capital the investments usually come in exchange for ownership shares in the company and a say in how it's operated. Venture capital investments generally tend to be quite large. Entrepreneurs need to weigh the positives: increased cash available to get the company started and to compete effectively, ability to scale the company rapidly, and access to expertise and connections, with the downsides: of loss of control/ownership, potential misalignment of goals, strategy and timelines, and potential conflicts in managerial or strategic oversight.





# 2017 Programs and Services for Growth

Development Officers and New Venture Coaches at Alberta Agriculture and Forestry have created this document to assist agri-processing companies locate funding programs, services and supports. This information will help you:

- \*Discover what's available to help grow your agri-processing business
- \*Find the programs and services that suit your needs
- \*Apply financial cost-sharing opportunities for new initiatives
- \*Access resources that improve your business

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Automation , Technology &amp; Continous Improvement</b>						
<b>Agri-Innovation Program</b>	Grant/ Interest-Free Loan	<i>Agriculture and Agri-Food Canada</i>	The program is designed to accelerate the pace of innovation by supporting research and development activities in agri-innovations and facilitating the demonstration, commercialization and/or adoption of innovative products, technologies, processes, practices and services. The aim is to enhance economic growth, productivity, competitiveness, adaptability and sustainability of the Canadian agriculture, agri-food and agri-based products sector and assist in capturing opportunities for the sector in domestic and international markets.	\$10,000,000	Mar. 31 /2018	<a href="http://www.agr.gc.ca">www.agr.gc.ca</a>
<b>Productivity Benchmarking Tool</b>	Resource	<i>Business Development Canada</i>	This is a free productivity benchmarking tool that helps processors find where they stand compared to other Canadian businesses in the same industry. It's the first step to making a business leaner, stronger and more profitable. The benchmarking tool calculates and displays the results online; a printable report that includes recommended readings and information on best practices, can then be downloaded from the website.	-----	-----	<a href="https://www.bdc.ca">https://www.bdc.ca</a>
<b>GO Productivity</b>	Resource	<i>GO Productivity</i>	GO Productivity offers a broad range of services that help companies identify and address gaps in productivity, maximize resources and be more efficient. The organization has own in-house productivity experts as well as a vast network of resources to ensure that whatever the productivity challenge a business faces, they have the capacity to meet it.	-----	-----	<a href="http://goproductivity.ca/">http://goproductivity.ca/</a>
<b>Food Safety</b>						
<b>Food Safety Resources and Assistance</b>	Resource	<i>Alberta Agriculture and Forestry (AF)</i>	AF has many excellent resources to assist food processors in developing, improving and implementing a food safety system (i.e., GMP, HACCP or GFSI Benchmarked systems) to meet the requirements of current customers and help gain new customers. These resources include coaching and guidance from experienced Food Safety Specialists, a food safety "how to" manual, personnel training materials, food safety DVDs, template record keeping forms, and more. Most resources are on-line, but don't forget to contact a Food Safety Specialist for assistance!	-----	-----	<a href="http://www.foodsafety.alberta.ca">www.foodsafety.alberta.ca</a>
<b>Online Food Safety Training &amp; Management System</b>	Resource	<i>Alberta Food Processors Association</i>	This program enables Alberta food processors to train employees within the facility on seven food safety modules, administer quizzes and present certificates upon completion of the training. It will also give HACCP Coordinators the tools to manage employee training and prerequisite programs to ensure they are current and ready for audits. Technical support is also available to assist processors in entering employee names into the database, downloading SOPs and training to use the system.	-----	-----	<a href="http://www.afpa.com">www.afpa.com</a>
<b>Food Safety Training and Consulting</b>	Resource	<i>Alberta Food Processors Association (AFPA)</i>	AFPA can train a group of employees on HACCP or other food safety topics in a public course setting or in a customized course at their facility. Customized courses minimize potential expenses and time away from production. It also gives a team approach to training, which many companies prefer. Food Safety consulting is also available.	-----	-----	<a href="http://www.afpa.com">www.afpa.com</a>

# Programs and Services

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Investment/ Business Planning/Access to Capital</b>						
<b>Agriculture Borrowing Program</b>	Financing/ Loan	<i>Alberta Treasury Bank (ATB Financial)</i>	ATB Financial offers financing to any business engaged in the Agri Food Value Added chain. Products specific to agri-processors include: term loans for equipment, real estate, working capital; operating loans to fund day to day operating expenses secured by accounts receivable and inventory; and access to a financial advisor via ATB Investor Services or Ag Centre of Expertise to assist with investment and insurance needs. ATB has a team of experts - Ag Centre of Expertise(ACE) to connect business with people who know the industry.	-----	-----	<a href="http://www.atb.com">www.atb.com</a>
<b>Agribusiness &amp; Agri-Food Financing</b>	Financing/ Loan	<i>Farm Credit Canada (FCC)</i>	FCC's Agri-business and Agri-Food Program provides specialized financial services to food processors and manufacturers, wholesalers and distributors, input providers, equipment manufacturers and dealers. It offers term and cash flow financing as well as venture capital options.	-----	-----	<a href="http://www.fcc-fac.ca">www.fcc-fac.ca</a>
<b>Alberta Investor Tax Credit (AITC)</b>	Tax Credit	<i>Alberta Economic Development and Trade</i>	The 3-year AITC is applicable across sectors, offering a 30% tax credit to investors who provide capital to Alberta small businesses doing research, development or commercialization of new technology, new products or new processes. Investments made as of April 14, 2016, may be retroactively eligible for the AITC. An investor can either invest directly in an Eligible Business Corporation (EBC), or invest in an Approved Venture Capital Corporation (VCC).	Tax credit for up to 30%	-----	<a href="https://www.alberta.ca">https://www.alberta.ca</a>
<b>Alberta Indian Financial Services</b>	Financing / Loan	<i>Alberta Indian Investment Corporation(AIIC)</i>	AIIC provides interest-bearing loans to First Nation entrepreneurs for the purpose of establishing, acquiring, diversifying or expanding a business. In some cases, equity financing may also be available. Interest rates are competitive. Loans are generally for periods of up to 5 years. To be eligible for applicants must be a Status Indian who has resided in Alberta for at least one year; if a corporation or partnership, the Status Indian must own at least 51% of any shares, participate more than 51% in profits, and above all, must be active in managing the business.	-----	-----	<a href="http://www.aiicbusiness.org">http://www.aiicbusiness.org</a>
<b>Business Planning</b>	Resource	<i>Business Link</i>	Business Link is a non-profit organization that helps Alberta entrepreneurs start their own businesses. The Business Link provide the tools to make business ideas a reality, and connect with relevant small business resources to help bring ideas to life.	-----	-----	<a href="http://businesslink.ca">http://businesslink.ca</a>
<b>Business Loans, Advisory Services and Capital</b>	Loans / Resources / Capital	<i>Business Development Bank of Canada</i>	The Business Development Bank of Canada is a financial institution owned by the Government of Canada. It offers business loans and advisory services to help Canadian businesses grow, both at home and abroad. Through its subsidiary—BDC Capital, also offers a full spectrum of specialized financing, including venture capital, equity as well as growth and business transition capital. Financing is available to expand production, purchase new equipment or for a special project.	-----	-----	<a href="http://www.bdc.ca">www.bdc.ca</a>
<b>Capital Investor Tax Credit (CITC)</b>	Tax Credit	<i>Alberta Economic Development and Trade</i>	The CITC is a 2-year program that provides a non-refundable tax credit valued at 10% of a corporation's eligible capital expenditures, up to \$5 million. The CITC encourages companies to make timely capital investments by returning a percentage of the company's costs, including the purchase of machinery, equipment and buildings. The CITC can only be claimed when the capital purchased is in use and the firm is earning profits and paying taxes.	Tax credit for up to 10%	-----	<a href="https://www.alberta.ca">https://www.alberta.ca</a>
<b>Family Business Resources</b>	Resource	<i>Business Families Foundation</i>	The Business Family Foundation is a not-for-profit charitable organization established to support, help and empower business families to ensure their sustainability and harmony for generations to come. It delivers relevant, interactive and engaging education on important topics relevant to business families both online and through face-to-face settings. The foundation also nurtures a network of partners that help make our learning accessible globally and trains academics & advisors to better cope with business family issues.	-----	-----	<a href="http://businessfamilies.org">http://businessfamilies.org</a>
<b>Alberta Women Entrepreneurs Program</b>	Loan	<i>Alberta Women Entrepreneurs (AWE)</i>	AWE is a not-for profit organization dedicated to enabling women to build successful businesses. AWE connects our clients to the people and resources needed at all stages of business growth. Repayable loans of up to \$150,000 are available to businesses that are 51% owned/operated and controlled by a woman.	\$150,000	-----	<a href="http://www.awebusiness.com">www.awebusiness.com</a>
<b>Canada Small Business Financing Program</b>	Loan	<i>Industry Canada</i>	Under the program, the Government of Canada makes it easier for small businesses to get loans from financial institutions by sharing the risk of lenders. Companies must be small businesses operating for-profit in Canada, with a gross annual revenue of less than \$10 million.	\$1,000,000	-----	<a href="http://www.ic.gc.ca">www.ic.gc.ca</a>

# Programs and Services

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Centres of Excellence for Commercialization and Research Program (CECR)</b>	Network / Resource Loan	<i>Networks of Centres of Excellence of Canada</i>	The CECR program bridges the gap between innovation and commercialization. The program matches clusters of research expertise with the business community to share the knowledge and resources that bring innovations to market faster.	-----	-----	<a href="http://www.nce-rce.gc.ca">www.nce-rce.gc.ca</a>
<b>Community Future Business Loans</b>	Loan	<i>Community Futures Alberta</i>	Community Futures Alberta provides rural Alberta companies flexible and affordable loan products that are specifically designed to support small business growth, and range from \$500 to \$150,000. Eligible loans include start-up, new market expansion, or technology or process update funds. Each loan is tailored to meet the client's business needs, and loan decisions are made locally and quickly. They can offer free business advice and counselling, low cost business coaching and other business development programs.	\$150,000	-----	<a href="http://www.albertacf.com">www.albertacf.com</a>
<b>District Ventures Business Accelerator</b>	Resource	<i>District Ventures LP</i>	District Ventures is a leading-edge accelerator connecting early-stage companies to top entrepreneurs, investors and commercialization support; it will also fund Canadian companies that are commercially viable but are challenged to expanding. Companies participating in the Accelerator will be offered business development support (e.g., marketing, distribution) as well as access to office space.	-----	-----	<a href="http://www.districtventures.ca">www.districtventures.ca</a>
<b>Futurpreneur Canada Start-Up Program</b>	Loan	<i>Futurpreneur Canda</i>	This program provides start-up financing of up to \$15,000, over 5 years. Furthermore, the Business Development Bank of Canada teamed up with Futurpreneur Canada to provide entrepreneurs with up to an additional \$30,000 to get their businesses off the ground.	\$45,000	-----	<a href="http://www.futurpreneur.ca">www.futurpreneur.ca</a>
<b>Pre-Commercial Investment Program</b>	Loan	<i>AVAC Ltd.</i>	Investment funds are targeted at early stage value add agri-business companies and agriculture technology. Verdex Capital invests in unique agricultural technologies business and provides early stage to later stage financing to innovative companies that can demonstrate a robust plan to address large commercial market needs. Accelerate Fund is an early stage, angel co-investment fund available to Alberta technology companies to secure additional funding for their current angel round.	-----	-----	<a href="http://www.avacitd.com">www.avacitd.com</a>
<b>Small Business Assistance</b>	Resource	<i>Conseil de développement économique de l'Alberta (CDÉA).</i>	CDÉA provides a wide range of consulting services, procedures pertaining to and coaching of project managers, designers, entrepreneurs, and business leaders. The CDÉA makes available to the French-speaking business community a hub of skills to promote the development of economic activities in Alberta.	-----	-----	<a href="http://www.lecdea.ca">www.lecdea.ca</a>
<b>Value Added &amp; Agri-Business Program</b>	Financing/ Loan	<i>Agriculture Financial Services Corporation (AFSC)</i>	This program is designed to provide enterprises with suitable financing to start, develop and grow their businesses. The loan can be used to start, expand, purchase or upgrade facilities, equipment, or other capital assets needed for your business. It also covers working capital expenditures, including training costs that support new or expanded operations or products for value added or agri-business enterprises and change of ownership.	\$5,000,000	-----	<a href="http://www.afsc.ca">www.afsc.ca</a>
<b>Nutrition/Labeling</b>						
<b>Canada's Regulatory System for Food with Health Benefits</b>	Resource	<i>Agriculture and Agri-Food Canada</i>	This website is a starting point for companies wanting to promote the health benefits of their products. It will help you better understand and navigate Canada's food regulatory system and point you to important resources.	-----	-----	<a href="http://www.agr.gc.ca">www.agr.gc.ca</a>
<b>Regulatory Readiness Decision Model</b>	Resource	<i>Agriculture and Agri-Food Canada</i>	The Regulatory Readiness: A decision Model for Canadian Food Products helps industry navigate the regulatory environment for Canadian food products and take advantage of market opportunities. It synthesizes a complex array of regulations and guidance into six key questions to consider prior to launching a new food product.	-----	-----	<a href="http://www.agr.gc.ca">www.agr.gc.ca</a>
<b>Food Labelling for Industry</b>	Resource	<i>Canadian Food Inspection Agency (CFIA)</i>	The CFIA Industry Labelling Tool is the food labelling reference for all food inspectors and stakeholders in Canada. The tool provides information on food products that require a label, general principles for labelling and advertising and a labelling requirements checklist.	-----	-----	<a href="http://www.inspection.gc.ca">www.inspection.gc.ca</a>

# Programs and Services

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Occupational Health &amp; Safety (OH &amp; S)</b>						
<b>Alberta Occupational Health and Safety</b>	Resource	<i>Government of Alberta</i>	Alberta Occupational Health and Safety works in consultation with industry to help prevent worker injuries and illnesses by providing measures and information for taking action. It includes resources such as publications on legislation and other topics, educational materials on how to work safely and stay healthy and e-learning programs.	-----	-----	<a href="https://work.alberta.ca">https://work.alberta.ca</a>
<b>Certificate of Recognition Program</b>	Resource	<i>Alberta Food Processors Association</i>	This program is a key component of Alberta Human Services Partnerships program. A Certificate of Recognition (COR) is issued to employers who have successfully implemented a workplace health and safety management system that meets partnership standards. Benefits of obtaining a COR include: minimized accident costs, improved worker productivity, a safer workplace and a possible 5% to 20% rebate for WCB premiums.	-----	-----	<a href="http://www.afpa.com">www.afpa.com</a>
<b>Small Employer Certificate of Recognition</b>	Resource	<i>Alberta Food Processors Association</i>	The Small Employer Certificate of Recognition (SECOR) program provides an option for employers with a small number of workers to develop a safety management system and achieve a Certificate of Recognition (COR). The program is designed to meet the application and training needs of employers with 10 or fewer employees. A SECOR is issued to an employer whose health and safety program meets the partnerships standards. Small employers with a SECOR are eligible to receive a 5% to 20% rebate on their WCB premiums.	-----	-----	<a href="http://www.afpa.com">www.afpa.com</a>
<b>Workplace Health &amp; Safety Program</b>	Resource	<i>Alberta Food Processors Association</i>	The Alberta Food Processors Association offers extensive educational courses. The following courses are instructed by qualified industry experts: Health & Safety Program Building, Internal Auditor Training, Hazard Assessment, WHMIS Train the Trainer, Incident & Accident Investigation, and Roles & Responsibility for Managers and Supervisors.	-----	-----	<a href="http://www.afpa.com">www.afpa.com</a>
<b>Research &amp; Development/ Innovation / Marketing</b>						
<b>Alberta Bio Future Program</b>	Grant	<i>Alberta Innovates</i>	The purpose of this program is to expand a competitive, sustainable and profitable bioindustrial sector (materials, chemicals and energy) through an integrated program with a strong industry focus. Focus will primarily be on projects that add value to biomass in agriculture and forestry, and create new and improved bioindustrial products and bioindustrial technologies. Food, feed and pharma products are excluded from the program. Funding is available in three strategic priority areas: discovery and developmental research, testing and commercialization, and equipment utilization.	\$100,000	Mar. 31 /2019	<a href="http://www.bio.albertainnovates.ca">www.bio.albertainnovates.ca</a>
<b>Agri-Marketing Program</b>	Grant/ Interest-Free Loan	<i>Agriculture and Agri-Food Canada</i>	The AgriMarketing Program supports the agriculture industry by creating and maintaining access to markets and taking advantage of market opportunities. Projects are supported under different funding streams: The Small and Medium Size Enterprise (SME) component supports small and medium-sized enterprises to undertake promotional and market development activities in markets other than Canada. The Market Development (MD) stream supports Not-for-profit organizations to develop and implement long-term market development strategies. The Assurance Systems (AS) stream supports non-for profit industry organizations and academic institutions in developing national assurance systems or standards for food safety, animal and plant health, market attribute/quality and traceability.	\$250,000 (SME) \$2.5mil /year (MD) \$1 Mil/project (AS)	Mar. 31/2018	<a href="http://www.agr.gc.ca">www.agr.gc.ca</a>
<b>Agrivalue Processing Business Incubator</b>	Resource	<i>Alberta Agriculture and Forestry</i>	This is a multi-tenant, CFIA registered facility with eight private, fully serviced processing suites dedicated to assisting food processors in the scale-up and commercialization of food products and technologies leading to successful establishment of their own enterprises.	-----	-----	<a href="http://www.agriculture.alberta.ca">www.agriculture.alberta.ca</a>
<b>Alberta Scientific Research and Experimental Development Tax Credit</b>	Tax Credit	<i>Government of Alberta</i>	The provincial tax credit program benefits businesses of all sizes and in all sectors that conduct research and development that leads to new, improved or technologically-advanced products or processes. The credit is for all expenditures incurred after December 31, 2008 that are also eligible for the federal Scientific Research and Experimental Development Credit (SR&ED). The Alberta SR&ED tax credit is over and above the federal SR&ED credit, helping the research and development investments made by Alberta companies go farther.	Tax credit of up to 10%	-----	<a href="http://eae.alberta.ca/">http://eae.alberta.ca/</a>

## Programs and Services

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Build in Canada Innovation Program (BCIP)</b>	Procurement	<i>Canada Business Network</i>	The BCIP program helps Canadian companies of all sizes to move their inventions, new technologies or processes that are not available in the marketplace from the laboratory to the market. Through the BCIP, the Government of Canada buys pre-qualified goods and services and moves these late-stage research and development innovations (Level 6 of Technology Readiness Level) to federal departments for testing. After testing, the BCIP provides feedback to suppliers on the performance of their products or services.	\$500,000	continuous intake	<a href="http://canadabusiness.ca">http://canadabusiness.ca</a>
<b>Connectica</b>	Resource	<i>Alberta Innovates</i>	Connectica is a web portal designed to help users connect with Alberta's research and innovation network. It is the perfect place to find programs, services, facilities or events that meet specific needs. Connectica facilitates introductions between stakeholders, researchers and entrepreneurs, and helps to bridge the gap between Alberta's research organizations, universities and publicly-funded innovation support services.	-----	-----	<a href="https://www.connectica.ca">https://www.connectica.ca</a>
<b>Food Processing Development Centre</b>	Resource	<i>Alberta Agriculture and Forestry</i>	The Food Processing Development Centre is a modern, fully equipped pilot plant and product development laboratory facility. It is staffed with experienced food scientists, engineers and technologists. Centre services are designed to strengthen and expand the capability of Alberta's food processors to meet the challenges of the marketplace through application of new technology and the development of new or improved products and processes.	-----	-----	<a href="http://www.agriculture.alberta.ca/fpdc">www.agriculture.alberta.ca/fpdc</a>
<b>Industrial Research Assistance Program (IRAP)</b>	Resource/ Grant	<i>National Research Council(NRC)</i>	This program supports small and medium-sized enterprises in Canada to build their technology and innovation capabilities. Industrial Technology Advisors work with small and medium-sized enterprises on-site to assess needs and design solutions which can be tailored to each business. NRC-IRAP offers direct technical assistance, access to the latest technological advances, expertise, facilities and resources. NRC-IRAP may also provide cost-shared financing of innovative technical projects to qualified firms.	-----	-----	<a href="http://www.nrc-cnrc.gc.ca">www.nrc-cnrc.gc.ca</a>
<b>Industry R&amp;D Associate Program</b>	Grant	<i>Alberta Innovates</i>	The Industry R&D Associates Program is designed to provide Alberta's technology-based SMEs with research expertise in order to accelerate business ideas and to support the expansion of highly trained personnel in research and industry settings in Alberta. Eligible activities include: pre-competitive research leading to the Proof-of-Concept of an inventive idea; prototype development leading to a demonstration product for technology validation, market capture and new investment opportunities; demonstration and feasibility investigation of innovative technologies leading to new or enhanced products and processes to meet market needs or demands;	\$149,000	-----	<a href="http://www.innotechalberta.ca">www.innotechalberta.ca</a>
<b>Industry Commercialization Associates</b>	Grant	<i>Alberta Innovates</i>	The purpose of this program is to stimulate the commercialization of novel technological and/or business solutions, while generating material risk-weighted returns on investment. Eligible activities include pre-competitive research focusing on a targeted or applied research question leading to the Proof-of-Concept of an inventive idea; prototype development leading to a demonstration product for technology validation, market capture and new investment opportunities; demonstration and feasibility investigation of innovative technologies leading to new or enhanced products and processes to meet market needs or demands;	\$224,000	continuous intake	<a href="http://www.innotechalberta.ca">www.innotechalberta.ca</a>
<b>Market Development Team</b>	Resource	<i>Alberta Agriculture and Forestry</i>	The Market Development Team brings experience in retail, food service, alternative markets such as c-stores and into the world of packaging and understanding consumer insights. This also includes innovation, broker relations, go-to-market plans and merchandising of products. The team works with agri-food processors as they move through the stages of Start-up, Selling, Establishing your business and Growing your capacity. Contact your Industry Development Officer and ask for the Market Development Team.	-----	-----	<a href="http://www.agriculture.alberta.ca">www.agriculture.alberta.ca</a>
<b>Matching Investment Fund</b>	Grant	<i>Canadian Dairy Commission</i>	The Canadian Dairy Commission (CDC) has committed \$500,000 over a two year period (August 1, 2014 to July 31, 2016) to support product development initiatives under the MIF. Each eligible project can receive up to \$150,000. Projects that use milk protein concentrate or skim milk powder may qualify for higher levels of funding.	\$150,000	Jul. 31 /2016	<a href="http://www.milkingredients.ca">www.milkingredients.ca</a>

# Programs and Services

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Micro-Voucher and Voucher Programs</b>	Grant	<i>Alberta Innovates</i>	The Micro-Voucher Program is designed to support technologies in the early developmental stages with a quick and flexible financial solution to fund Alberta SMEs to retain one Service or Product Provider to assist with early start up development activities. The Voucher Program is designed to support technologies in the mid-to-late developmental stages but may include some early developmental stages; it is intended to fund Alberta SMEs to work in collaboration with up to three Service or Product Providers to advance the technology closer to commercialization.	up to \$10,000 (Micro-Voucher) \$10,000 to \$100,000 (Voucher)	continuous intake	<a href="http://www.innotechalberta.ca">www.innotechalberta.ca</a>
<b>Product Demonstration Program</b>	Grant	<i>Alberta Innovates</i>	The Product Demonstration Fund (PDF) assists Alberta businesses in the commercialization phase of their development. PDF funding is in the form of a 50/50 matching non-repayable grant, typically ranging from \$100,000 to \$300,000. This fund will help businesses demonstrate their new products or services in a real-life, end-user environment.	\$300,000	-----	<a href="http://www.innotechalberta.ca">www.innotechalberta.ca</a>
<b>Scientific Research &amp; Experimental Development Tax Incentive Program (SR&amp;ED)</b>	Tax Credit	<i>Canada Revenue Agency</i>	This program is a federal tax incentive program that encourages Canadian businesses of all sizes and in all sectors to conduct research and development (R&D) in Canada that will lead to new, improved or technologically-advanced products or processes. Companies can apply for SR&ED investment tax credits for expenditures such as wages, materials, machinery, equipment, some overhead and SR&ED contracts.	Tax credit of up to 35%	-----	<a href="http://www.cra-arc.gc.ca">www.cra-arc.gc.ca</a>
<b>Western Innovation Initiative</b>	Grant	<i>Western Economic Diversification Canada (WINN)</i>	WINN offers repayable contributions to SME's proposing to commercialize a new technology, product, process or service in Western Canada. The program assists with up to 50% of eligible project costs to a maximum of \$3.5M/project or \$7.5M to one organization. Applications are accepted during two intake periods/year and costs incurred prior to approval are not eligible. Only the strongest applications demonstrating the highest merit and best fit with WINN objectives receive funding.	\$3,500,000	-----	<a href="http://www.wd-deo.gc.ca">www.wd-deo.gc.ca</a>
<b>Global Trade</b>						
<b>Alberta Export Expansion Package</b>	Grant	<i>Alberta Economic Development and Trade</i>	The program supports small and medium size enterprises to export to new international markets. The package consists of three new programs: Export Support Fund, Global Buyers and Investors, and Export Readiness Programs (includes Export Readiness Micro- Voucher Program). The Export Support Fund is designed to ease the cost necessary to enter new international markets. Agriculture and agri-food organizations are NOT eligible for this program but environmental products and services as well as life sciences are.	\$20,000/year	-----	<a href="https://www.alberta.ca">https://www.alberta.ca</a>
<b>Canada Brand</b>	Resource	<i>Agriculture and Agri-Food Canada</i>	The Canada Brand is designed to give the Canadian food and agriculture industry a competitive advantage, through a common strategy and set of tools. The objective is to raise the profile of and help differentiate Canadian food products from the competition in domestic or international markets. The strategy and its elements are free to use and were developed in collaboration with industry and the provincial governments.	-----	-----	<a href="http://www.marquecanadabrand.agr.gc.ca">www.marquecanadabrand.agr.gc.ca</a>
<b>Canadian Trade Commissioner Services</b>	Resource	<i>Global Affairs Canada</i>	The Canadian Trade Commissioner Service offers an extensive network of international business contacts and hands-on knowledge of international markets. In 161 offices around the world and across Canada, trade commissioners provide expert advice and problem-solving skills—whether you export, partner, or invest abroad.	-----	-----	<a href="http://tradecommissioner.gc.ca">http://tradecommissioner.gc.ca</a>
<b>CanExport</b>	Grant	<i>Global Affairs Canada</i>	The CanExport program helps companies that are exporting and/or planning to export. This \$50M fund is administered through the Trade Commissioner Service and provides matching funds to help Canadian small and medium enterprises to explore a new market (i.e. does not apply to any country where company had even one sale within the past 24 months). Projects could include market research, market activities in the export market, promotional efforts, promotion of language training or other educational services.	\$99,999.99/ company/ project	-----	<a href="https://international.gc.ca">https://international.gc.ca</a>
<b>Export Credit Insurance and Trade Financing</b>	Financing / Resource / Loans	<i>Export Development Canada (EDC)</i>	EDC is an export credit agency that supports and develops Canada's export trade by helping Canadian companies respond to international business opportunities. EDC provide insurance and financial services, bonding products and small business solutions to Canadian exporters and investors and their international buyers. It also supports Canadian direct investment abroad and investment into Canada.	-----	-----	<a href="http://www.edc.ca">www.edc.ca</a>

# Programs and Services

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Export Readiness Micro-Voucher Program</b>	Grant	<i>Alberta Innovates</i>	The Export Readiness Micro-Voucher Program is a 2 year program initiated in April 2017 in collaboration with the Ministry of Economic Development & Trade to provide funding to Alberta SMEs that are interested in expansion into international markets. The purpose of the Program is to offset the cost of developing an international market assessment/business plan, and to evaluate the risks and benefits of exporting prior to entering new global markets.	\$5,000	-----	<a href="http://www.innotechalberta.ca">www.innotechalberta.ca</a>
<b>International Market Development Team</b>	Resource / Grant	<i>Alberta Agriculture and Forestry</i>	International Market Development Initiatives provide custom intelligence, facilitate opportunity identification and matchmaking introductions, implement market development strategies, develop relationships with strategic influencers and advance advocacy and market access priorities that complement federal efforts where possible. Such initiatives are designed to help companies improve their competitiveness and positioning, prepare marketing strategies, target strategic channels and connect to market opportunities.	-----	-----	<a href="http://www.agriculture.alberta.ca">www.agriculture.alberta.ca</a>
<b>Sustainability</b>						
<b>Business, Non-Profit, and Institutional Energy Savings Program</b>	Grant	<i>Energy Efficiency Alberta(EEA)</i>	This program offers incentives to encourage organizations to choose high-efficiency products. Once an organization has installed an approved high-efficiency heating or lighting eligible product (after March 24, 2017 as per invoice dates), it can apply for the rebate. Eligible products are listed on the EEA's website. Once approved, a cheque will be issued to help cover the cost of the equipment. Individual businesses are eligible (including agri-food processing) with the exception of large emitters (as defined under the Alberta's Specified Gas Emitters Regulations).	-----	-----	<a href="https://www.energycalberta.ca">https://www.energycalberta.ca</a>
<b>Emmissions Reduction Alberta Funding for SMEs</b>	Grant	<i>Emmissions Reduction Alberta(ERA)</i>	ERA in partnership with Sustainable Development Technology Canada offeres a unique joint funding opportunity to Canadian clean technology innovators and entrepreneurs. Eligible projects include advancing pre-commercial technology for GHG reduction with a current Technology Readiness Level from 4-7, and includes prototype development, field pilots, and commercial demonstration projects. Projects may take place anywhere in Canada, but applicants must demonstrate how the proposed project will result in GHG reductions, commercialization, enterprise growth, and economic growth in Alberta and Canada.	10,000,000 / project	-----	<a href="http://www.eralberta.ca">http://www.eralberta.ca</a>
<b>Green Municipality Fund (GMF)</b>	Grant and Low Interest Loan	<i>Federation Of Canadian Municipalities</i>	GMF supports partnership of both public and private sector to reach higher standard of air, water and soil quality. There must be a collaborative relationship between an organization and the municipal government regarding the environmental initiative to successfully obtain GMF funding. It supports three types of initiatives: grants to develop plans, grants to conduct feasibility studies and pilot projects and low interest loans, in combination with grants, to implement capital projects. Grants cover up to 50% of eligible costs.	\$175,000 for plans and feasibility studies \$350,000 for pilot projects.	Renewed Annually	<a href="http://www.fcm.ca">http://www.fcm.ca</a>
<b>Growing Forward Accelerating Innovation</b>	Grant	<i>Alberta Agriculture and Forestry</i>	This program intends to support late-stage activities on the Innovation continuum of start-up/scale-up demonstration work and adoption. <u>Stream C: The Implementing Innovation for Energy Reduction</u> is targeted at Agri-Processors. Its purpose is to assist Agri-Processors with retro-fitting their facilities and/or adopting new technologies or practices that have an impact on energy reduction. Successful applicants are eligible for reimbursement of equipment expenses at 40% and energy assessments or audits at 80%.	\$75,000	Mar. 31 /2018	<a href="http://www.growingforward.alberta.ca">www.growingforward.alberta.ca</a>
<b>Leveraging Efficiencies, Accelerating Profit (LEAP)</b>	Resource	<i>Alberta Food Processors Association</i>	LEAP is AFPA's new business sustainability program that will drive members operations forward through Leveraging Efficiencies, Accelerating Profit (LEAP). This program is designed to strengthen competitiveness, create efficiencies, enhance productivity, reduce your costs and improve revenues. LEAP will connect food processors with the proper tools, training and support, including industry-leading expertise - one-on-one coaching, on-site assessments and workshops, access to grants - for further training, retrofits, assessment or pilot projects, partnerships with industry, government and communications.	-----	-----	<a href="http://www.afpa.com">www.afpa.com</a>
<b>On-line Sustainability Portal</b>	Resource	<i>Provision Coalition</i>	Provision Coalition is the leading voice of sustainability for the food and beverage industry in Canada. The On-line portal is free for all food and beverage manufacturers and includes web-based benchmarking tools and resources: self-assessment survey, key performance indicators scorecard, environmental benchmarking tool, consultant and funding databases, case studies and success stories.	-----	-----	<a href="http://www.provisioncoalition.com">www.provisioncoalition.com</a>

# Programs and Services

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Office of Energy Efficiency</b>	Resource	<i>Natural Resources Canada</i>	The Office of Energy Efficiency (OEE) is mandated to strengthen and expand Canada's commitment to energy efficiency in order to help address the Government of Canada's policy objectives. The OEE offers a variety of resources, including workshops for professionals, statistics and analysis, awards and hundreds of free publications.	-----	-----	www.nrcan.gc.ca
<b>SD Tech Fund™</b>	Grant	<i>Sustainable Development Technology Canada</i>	The SD Tech Fund™ is designed to support the development and pre-commercial demonstration of cleantech solutions. Its aim is to increase each solution's chances of successfully making it to the marketplace, and help Canadian entrepreneurs carry out their innovation efforts within Canada	-----	-----	www.sdtef.ca
<b>Workforce Development</b>						
<b>Agricultural Youth Green Jobs Initiative</b>	Grant	<i>Agriculture and Agri-Food Canada</i>	The Agricultural Youth Green Jobs Initiative supports employers who wish to hire youth to undertake environmentally beneficial activities on their farm; or employers who employ youth in the agriculture sector to undertake environmentally beneficial activities. Farm operators could receive up to a maximum of \$10,000 per intern to implement projects that are environmentally beneficial. Employers in the agricultural sector but not directly on farm could receive up to a maximum of \$16,000 per intern to undertake environmental activities, services or research that will benefit the agriculture sector.	\$10,000 \$16,000	First-come First-served	www.agr.gc.ca
<b>Agri-Industry Workforce Development Program</b>	Grant	<i>Alberta Agriculture and Forestry</i>	This program provides assistance to address specific workforce issues in agricultural production and agri-processing sectors. Financial assistance is provided to assist Alberta agri-business managers to assess and adopt technologies and processes which will increase worker productivity, reduce worker turnover through the development of retention strategies and recruit workers domestically as well as outside of Canada. 80% of eligible expenses incurred by a successful applicant in completing the approved project per applicant in a fiscal year (April to March).	\$25,000	Renewed Annually	www.agriculture.alberta.ca/workforce
<b>Alberta Immigrant Nominee Program</b>	Resource	<i>Citizenship and Immigration Canada &amp; Alberta Jobs, Skills, Training &amp; Labour</i>	The Alberta Immigrant Nominee Program is a federal-provincial agreement designed to assist employers to facilitate the permanent immigration process to retain qualified temporary foreign workers already working in Alberta.	-----	-----	www.albertacanada.com
<b>Industry Commercialization Associate Program</b>	Grant	<i>Alberta Innovates</i>	The Industry Commercialization Associates Program is designed to increase business management and marketing expertise in Alberta's technology-based SMEs by enabling them to recruit skilled business professionals. Eligible activities include: manufacturing analysis and planning; product validation; exploring new product market opportunities; marketing and sales strategies; partnership activities including engaging clients, licensees, distributors, etc. and financial strategy;	\$224,000	-----	www.innotechalberta.ca
<b>Apprenticeship Job Creation Tax Credit</b>	Tax Credit	<i>Canada Revenue Agency</i>	The federal incentive program is designed to help employers offset the cost of hiring and training employees who have entered into an apprenticeship contract. Employers can take advantage of a non-refundable tax credit equal to 10% of the eligible salaries and wages paid to apprentices in their first two years. Any unused credit may be carried back three years and carried forward 20 years.	\$2,000	-----	www.cra-arc.gc.ca
<b>Canada-Alberta Job Grant</b>	Grant	<i>Government of Alberta</i>	The Canada-Alberta Job Grant is an employer-driven training program. This means that employers decide on who gets training and what type of training may be needed for new and existing employees. Employers must use a third-party training provider to deliver the formal training either onsite, online, or in a classroom setting. Employers will cover a minimum of one-third, and the grant will cover two-thirds.	\$10,000 per trainee or \$300,000 per company	-----	www.albertacanada.com
<b>Canada Summer Jobs</b>	Grant	<i>Service Canada</i>	Canada Summer Jobs provides funding to help employers create summer job opportunities for students. It is designed to focus on local priorities, while helping both students and their communities. It provides funding to not-for-profit organizations, public-sector employers and small businesses with 50 or fewer employees to create summer job opportunities for young people aged 15 to 30 years who are full-time students intending to return to their studies in the next school year.	50% of minimum hourly wage for private sector	Renewed Annually	www.servicecanada.gc.ca
<b>Career Edge Program</b>	Grant	<i>Career Edge</i>	This program is for employers seeking qualified workers and for recent immigrants seeking professional level positions in their fields of expertise. Career Bridge offers paid internships of 4, 6, 9 or 12 months for recent immigrants. It can help employers fill a wide range of professional and managerial positions while minimizing recruiting costs and risks.	-----	-----	www.careeredge.ca



# Programs and Services

Program Name	Type	Administered By	Description	Maximum Funding	Program End Date	Website
<b>Great People = Growing Profits Toolkit</b>	Resource	<i>Alberta Agriculture and Forestry</i>	This online toolkit for employers features practical tools to help immediately address labour shortage issues. The toolkit offers recruitment and retention strategies with tools and templates that can be used independently or incorporated into your current business processes. The toolkit can be accessed online or by contacting your Development Officer for a free CD copy.	-----	-----	<a href="http://www.agric.gov.ab.ca">www.agric.gov.ab.ca</a>
<b>Funding for Hiring-Career Focus Program</b>	Grant	<i>Food Processing HR Council</i>	This program offers food processing employers an opportunity to receive a wage subsidy to hire skilled youth and access some of the skills that can further strengthen the sector: business, marketing, design, processing, engineering or other technical abilities. Eligible participants must be post-secondary graduates in food processing or other related disciplines. The program will reimburse 50% of the eligible wages and related expenses to hire a post-secondary student for a placement between four and 12 months.	\$15,000	-----	<a href="http://www.fundingforhiring.com">www.fundingforhiring.com</a>
<b>Summer Temporary Employment Program (STEP)</b>	Grant	<i>Government of Alberta</i>	STEP is a 4 - 16 week wage subsidy program that provides funding to eligible Alberta employers to hire high school or post-secondary students into summer jobs from May to August. A standardized wage subsidy of \$7.00/hour to a maximum of 37.5 hours/week will be provided to approved applicants.	based on size and scope of the organization.	Renewed Annually	<a href="http://www.albertacanada.com">www.albertacanada.com</a>
<b>Temporary Foreign Worker Program</b>	Resource	<i>Employment and Social Development Canada</i>	The Temporary Foreign Worker Program is a federal program designed to meet temporary labour needs in Alberta to fill short-term gaps in the labour force.	-----	-----	<a href="http://www.esdc.gc.ca">www.esdc.gc.ca</a>
<b>Training &amp; Development Resources</b>	Resource	<i>Food Processing HR Council</i>	The Food Processing HR Council provides up-to-date training materials, human resources kits, multimedia products, guides, and reports to upgrade your employees' skills and abilities.	-----	-----	<a href="http://www.fphrc.com">www.fphrc.com</a>
<b>Workforce Development Team</b>	Resource	<i>Alberta Agriculture and Forestry</i>	The Workforce Development Team brings experience and resources in human resource, retention, recruitment and productivity improvement. The Team provides coaching to clients on how to improve current retention and hiring practices. The Team works with primary producers and agri-food processing companies in Alberta. Contact your Industry Development Officer and ask for the Workforce Development Team.	-----	-----	<a href="http://www.agriculture.alberta.ca/workforce">www.agriculture.alberta.ca/workforce</a>
<b>Youth Employment Program Industrial Research and Assistance Program (IRAP)</b>	Grant	<i>National Research Council</i>	The Youth Employment Program (YEP) provides financial assistance to innovative small and medium-sized enterprises in Canada to hire post-secondary science, engineering, technology, business and liberal arts graduates. Internships must be at least six and no longer than 12 months and are available anywhere in Canada. Support will help cover a part of the intern's salary but does not include fringe benefits and overhead costs.	\$20,000	-----	<a href="http://www.nrc-cnrc.gc.ca">www.nrc-cnrc.gc.ca</a>

**Development Officers and New Venture Coaches serve as the first point of contact for Alberta's growing and established agri-processing companies. In addition to having a thorough understanding of the agri-processing industry, our staff can help you navigate through the numerous programs and services. We are your connection to resources for business growth.**

**Call 310-FARM (3276) to contact a Development Officer or a New Venture Coach today.**

**For more information or an updated version of this document, visit: [www.agriculture.gov.ab.ca](http://www.agriculture.gov.ab.ca)**





## **TAB 6**

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