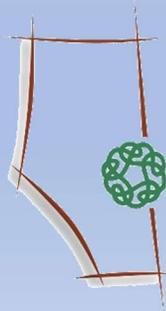


Value-Added Agriculture Investment Guide



BRAED

BATTLE RIVER ALLIANCE
FOR ECONOMIC DEVELOPMENT

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Welcome to Battle River, Alberta

The Battle River region is located in east-central Alberta and is an excellent place to invest, work and raise a family. New investment opportunities are always on the horizon, so much so, that the City of Camrose, our largest centre, ranks 11th in Alberta as one of the Best Entrepreneurial Cities (Canadian Federation of Independent Business).

Our economy is diverse and growing thanks to our competitive advantages. Our highly skilled workforce, stable infrastructure, low costs of doing business, abundance of land, and reasonably priced housing (34% lower than provincial average) make our region attractive to investors, employers and job seekers.

The Battle River region has a thriving economy with several stable and growing industries. Opportunities in emerging industries include value-added agriculture which is driven by large-scale primary agricultural production in the region.

Communities in the Battle River region enjoy a high quality of life. Albertans enjoy the lowest personal taxes in Canada and a single rate tax system, including the highest basic and spousal exemptions in the country. The Battle River region has safe communities with modern infrastructure including health care, protective and emergency services, utilities, and transportation.



Why Canada?

Highlights

- Canada's macroeconomic stability is unparalleled due to its successful grip on inflation and debt dynamics.
- Canada boasts a 57% postsecondary educational attainment rate for individuals between the ages of 25-34, indicating a high level of human capital. This has resulted in Canada being ranked 12th place in terms of the quality of its workforce.
- Canada ranks 12th overall in terms of research and development, indicating a high level of innovation.

How does Canada rank?

- 1st Macroeconomic Stability
- 4th Corporate Governance
- 8th Labour Market
- 9th Transparency
- 12th Trade Openness
- 14th most competitive economy

(Source: The Global Competitiveness Report, WEF 2019 and Canada's competitiveness scorecard, Deloitte)



Why Alberta?

- Nearly 70% of Alberta’s labour force over the age of 25 has post-secondary education
- Alberta operates 12 international trade and investment offices in order to promote its presence in key markets
- Between 2008 and 2018 Alberta’s population increased faster than any province or state in North America
- Alberta is home to the world’s largest Food Processing Development Centre and Agri value Processing Business Incubator
- Low corporate tax rate of 27% (combined federal/provincial) for general businesses and 12% (combined) for small businesses.

\$5.8 Billion
Processed Food & Beverage Exports

\$5.7 Billion
Crop & Livestock exports

50.3 Million
Acres of total farm area

\$14.9 Billion
Processed food and beverage sales
(2nd largest manufacturing industry)

36.9 years
Median age
(youngest province in Canada)

Source: Statistics Canada, Government of Alberta, BRAED



Economy Highlights

Growth In Selected Indicators
% Change, 2008-2018

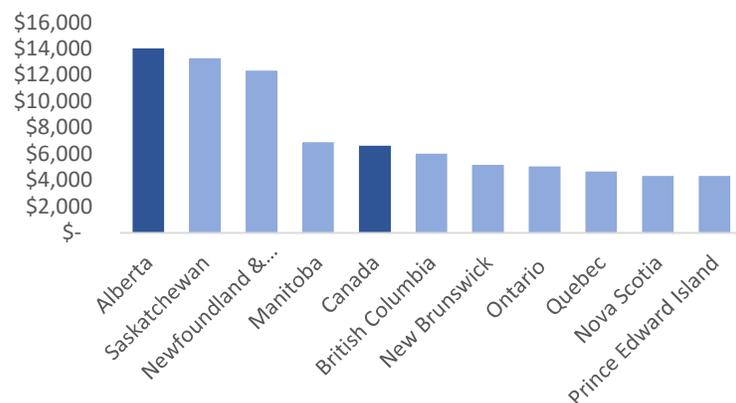


Source: Highlights of the Alberta Economy (2019)

Alberta has the highest per capita investment among all Canadian provinces.

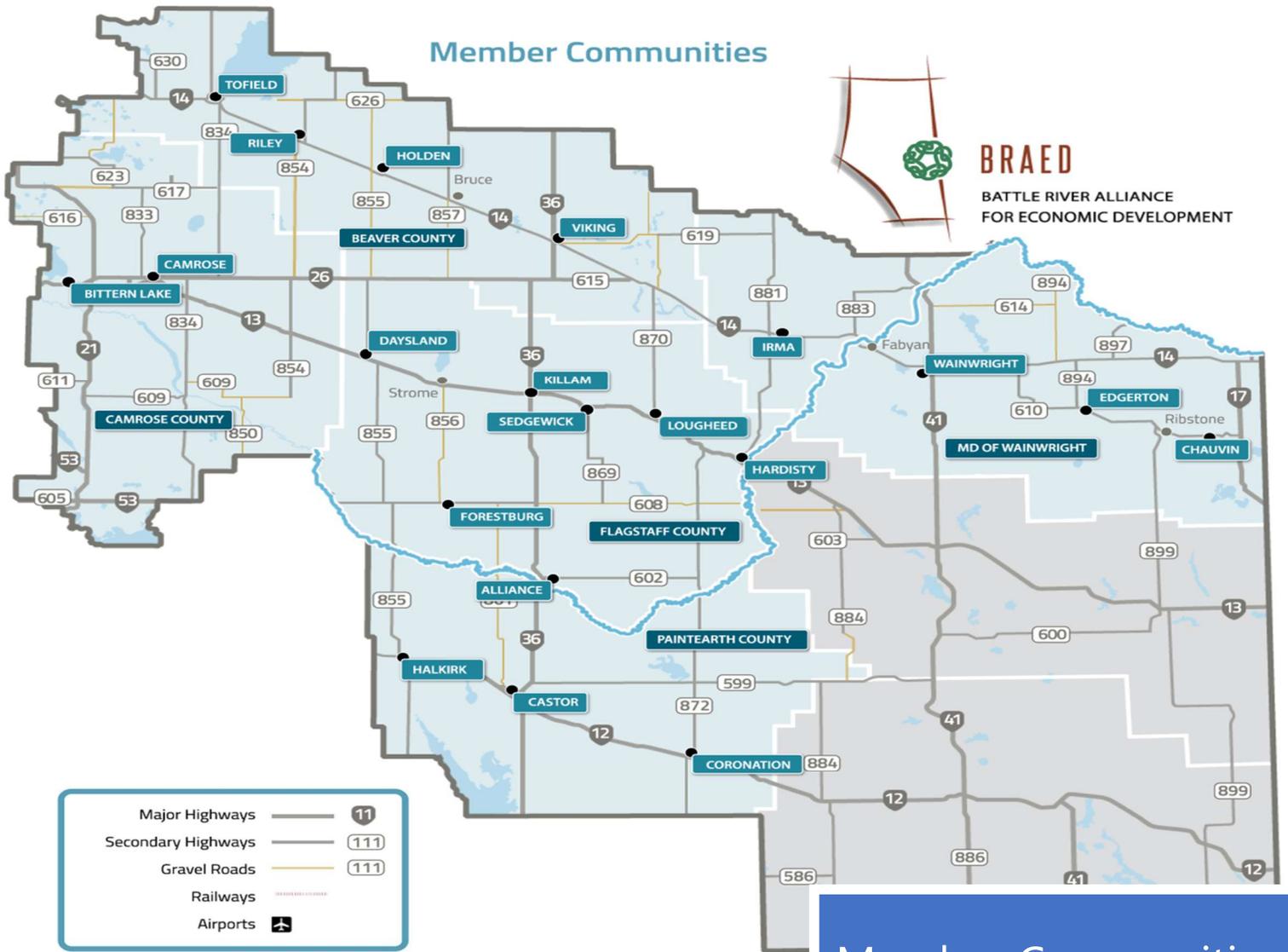
From 2008-2018, Alberta lead the country in population, employment and GDP growth.

Per Capita Investment (2018, excluding new housing)



Source: Highlights of the Alberta Economy (2019)

Member Communities



Member Communities

- The Battle River Alliance for Economic Development (BRAED) is a group of communities and affiliate members in east-central Alberta that work cooperatively and voluntarily to address community economic development issues from a regional perspective.
- BRAED is an agriculture powerhouse with 4,063 individuals employed in Agriculture and a further 73 individuals employed in food manufacturing.

25
communities

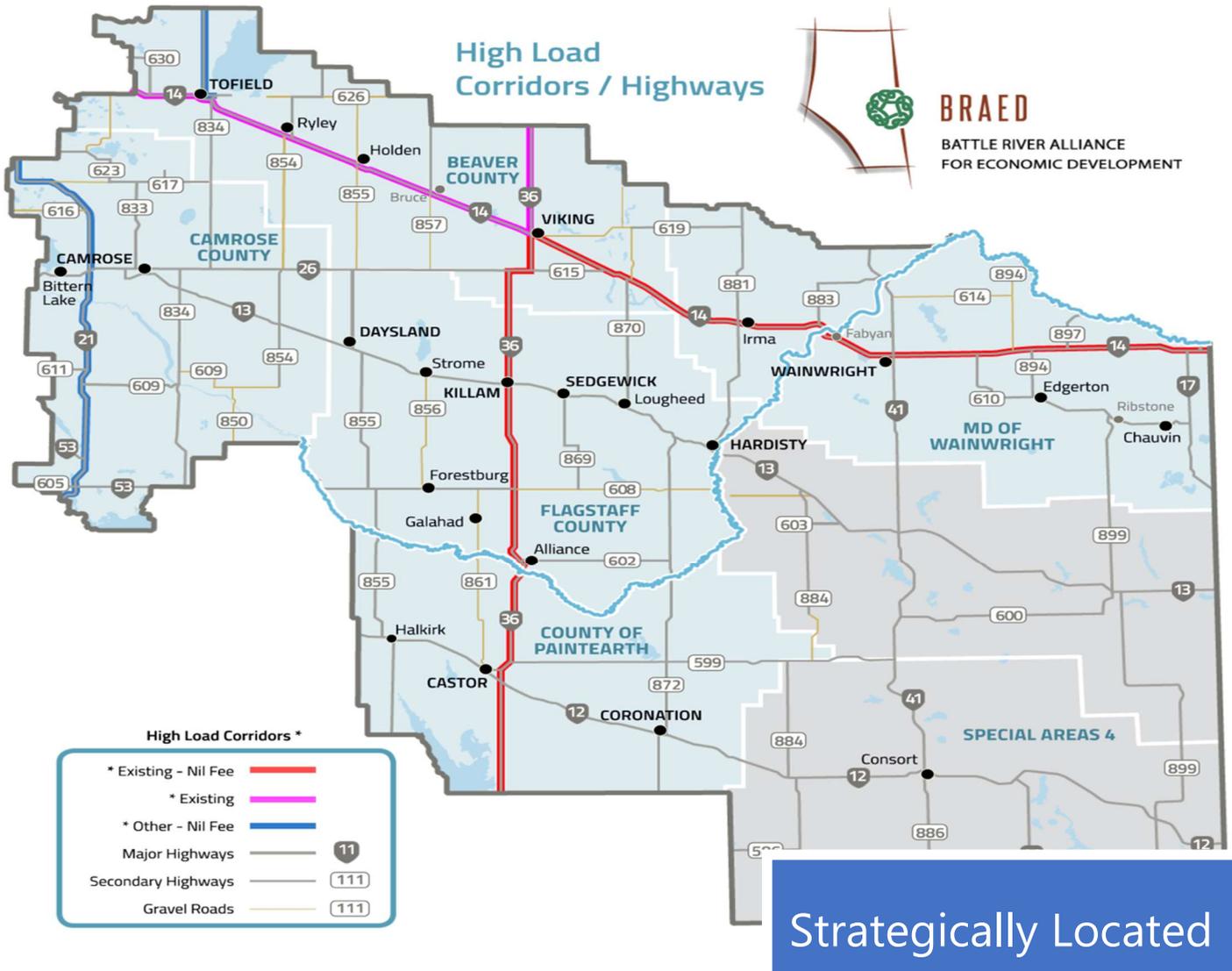
62,832
residents

42.6
average age

72%
labor force participation rate

3 million
acres of cultivated crop land

Source: Statistics Canada, BRAED



- The BRAED region is a major part of the Ports to Plain Corridor, which is a 2,300-mile highway system from the Gulf of Mexico through the U.S. to east-central Alberta.
- The Queen Elizabeth II Highway corridor, the province's north-south route is only 40 minutes west of the City of Camrose.
- Highways 36 and 41 run through the region and are major North-South trade corridors leading to the U.S. via the Ports of Wild Horse, Aden/Whitlash and Coutts/Sweetgrass.



Distance to major urban centres

Location	Distance to Battle River	
	KM	MILES
Edmonton	239	149
Calgary	283	176
Saskatoon	402	250
Regina	639	397
Winnipeg	1,181	734
Vancouver	1,243	772

Source: Google Maps

Transportation

Battle River is well served by both passenger and freight rail services and is located within 2 hours of Edmonton International Airport and 2.7 hours of Calgary International Airport.

Battle River is situated on a network of railways including Canadian Pacific Railway and Canadian National Railway which provide daily freight service. Rail traffic is increasing in the region through the availability of producer cars.



Rail

Canadian Pacific Railway

<https://www.cpr.ca/en/>

Canadian National Railway

<https://www.cn.ca/en/>



Air

Edmonton International Airport (203 km)

<https://flyeia.com/>

Calgary International Airport (272 km)

<https://www.yyc.com/>

Saskatoon John G. Diefenbaker International Airport (405 km)

<https://skyxe.ca/en-us/>



Port

Port of Vancouver

<https://www.portvancouver.com/>



Workforce

TOTAL WORKFORCE
42,000

Source: Statistics Canada

Occupations, 15y+ population, 2016	BRAED	Alberta
0 Management occupations	16.0%	11.6%
1 Business; finance and administration occupations	12.9%	15.6%
2 Natural and applied sciences and related occupations	3.2%	7.7%
3 Health occupations	7.3%	6.6%
4 Occupations in education; law and social; community and government services	8.6%	10.1%
5 Occupations in art; culture; recreation and sport	1.5%	2.2%
6 Sales and service occupations	18.7%	21.7%
7 Trades; transport and equipment operators and related occupations	20.6%	18.0%
8 Natural resources; agriculture and related production occupations	7.2%	3.2%
9 Occupations in manufacturing and utilities	4.0%	3.2%

Source: BRAED Industry & Benchmarking Report, Statistics Canada



Business and Innovation

A cross-section of value-added businesses operating in BRAED shows the possibilities for innovation:

- Battle River Railway: *farmer-established co-operative*
- Bunge: *value-added food ingredients*
- Cargill: *canola oil*
- Killam Feed Mill: *livestock feeds*
- Lazy Bee/Simply Bee Honey: *beeswax and natural ingredient products*
- Meadowlark Ag Chem Sales: *disposal service for pesticides and medication*
- Double Z Farms & Meat Processing

Key forces driving innovation in and near BRAED include:

- University of Alberta Augustana Campus (Camrose)
- Food Processing Development Centre (Leduc)
- Bioresource and Food Processing Research Unit at Agri-Food Discovery Place, University of Alberta (research on pulse-based pet food, plant-based protein, organic production)
- High number of professional, technical workers, especially in engineering
- Educational attainment in BRAED is more than twice as high as the Alberta average (half of BRAED residents are in possession of a post-secondary certificate or diploma)

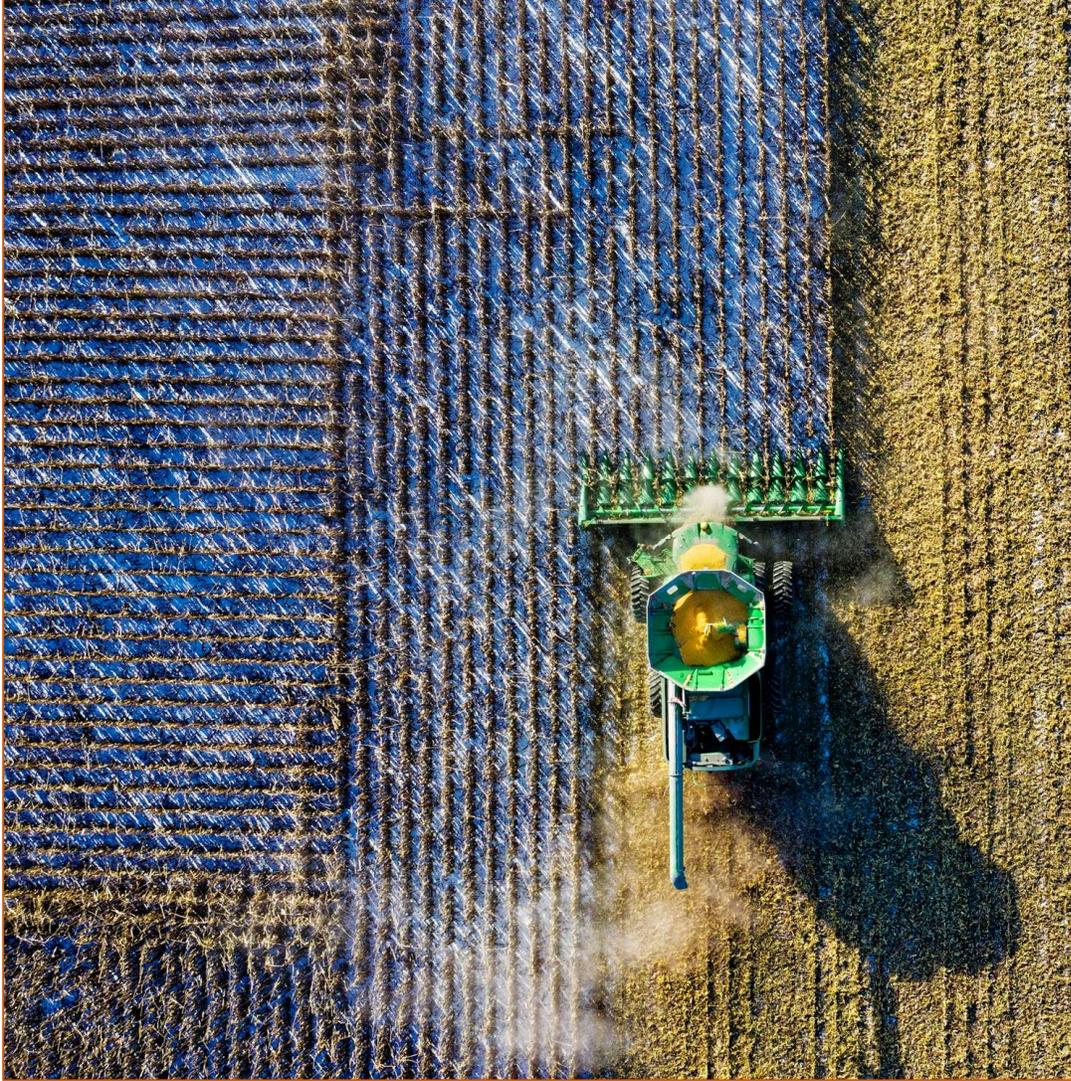


Key Industry Sectors

Primary and value-added agriculture account for a large proportion of employment in the Battle River Region with an increasing number of businesses entering the sector.

Industry Employment 15y+ population, 2016	BRAED	Alberta
11 Agriculture; forestry; fishing and hunting	12.9%	2.8%
62 Health care and social assistance	12.0%	10.9%
44-45 Retail trade	10.9%	11.0%
23 Construction	10.1%	10.4%
21 Mining; quarrying; and oil and gas extraction	6.9%	6.3%
91 Public administration	6.1%	5.4%
61 Educational services	5.4%	6.5%
81 Other services (except public administration)	5.3%	4.7%
72 Accommodation and food services	5.2%	6.8%
31-33 Manufacturing	4.6%	5.6%
48-49 Transportation and warehousing	4.2%	5.1%
54 Professional; scientific and technical services	3.3%	7.4%
41 Wholesale trade	3.2%	3.6%
56 Administrative and support; waste management and remediation services	3.0%	3.9%
52 Finance and insurance	2.2%	3.1%
71 Arts; entertainment and recreation	1.5%	2.0%
22 Utilities	1.2%	1.0%
51 Information and cultural industries	1.0%	1.5%
53 Real estate and rental and leasing	0.9%	1.8%
55 Management of companies and enterprises	0.1%	0.2%

Source: BRAED Industry & Benchmarking Report, Statistics Canada



Value-added
Agriculture

BRAED Advantages

- Abundant and low-priced feedstock
- Advanced manufacturing and processing capabilities
- 9.5% lower agri-food manufacturing costs than in the US (Source: BRAED)
- Highly competitive tax rates, with a combined federal/provincial rate of 27%
- Specialized farms with a strong focus on organic production



Pea
Processing



Canola
Meal



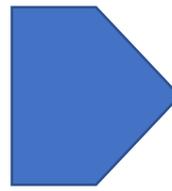
Plant
Proteins



Trending Opportunities



Niche Meat Processing



organic and Halal meat



Pet/animal food



pulse-based pet food



Functional food ingredients



protein powder snack bars

Niche Meat Processing

Specialty Meat

Cattle ranching is one of the largest occupation of farms in the Battle River region with 993 operations in the area. One major condition for halal quality meat is proximity to the source (e.g. farms, treatment facility, and production). The short distance between the Battle River region and the larger metro Edmonton market and lower production costs in the BRAED region present a significant opportunity for facilities that would like to establish their operation outside relatively higher cost areas but also in proximity to consumers.

According to recent research, halal butchers and grocery stores in Edmonton are seeing a spike in demand – a sign of both a growing Muslim population in the Alberta as well as a trend of non-Muslims consuming halal meat. Since 2012, potential buyers for all processed meat in the Edmonton metro area have increased on average by over 15%. The Canadian domestic halal market is estimated to be worth \$214 million.¹

Pet/Animal Food

Alberta (and BRAED in specific) is an ideal location for pet food production. Innovation in the industry is being driven by research at the University of Alberta exploring the possibility of pulse-based pet food. The Battle River region has an abundant availability of meat and non-meat derived protein ingredients that can be incorporated into pet food. This has led to successful businesses such as Double Z Farms & Meat Processing. Further, the University of Saskatchewan is home to the Canadian Feed Research Centre where commercial scale production facilities range from 70,000-100,000 ft² and produce 40-70 thousand tonnes of animal food per year. In 2018, the global pet food market was worth US \$98.3 Billion, growing at a CAGR rate of 5.3% from 2011-2018.²

Functional Food Ingredients

Functional foods include protein drinks or energy snack bars that include ingredients such as pea protein. Alberta is a leader when it comes to functional food R&D in Canada with much of the research and pilot projects being driven by the Department of Agricultural, Food and Nutritional Science at University of Alberta and research on pulse processing by the Leduc Food Development Centre. Several small-scale businesses have already appeared around the BRAED region including BioNeutra (Edmonton) and Nova Green (Killam). The global functional foods market is expected to reach \$276 billion by 2025.³

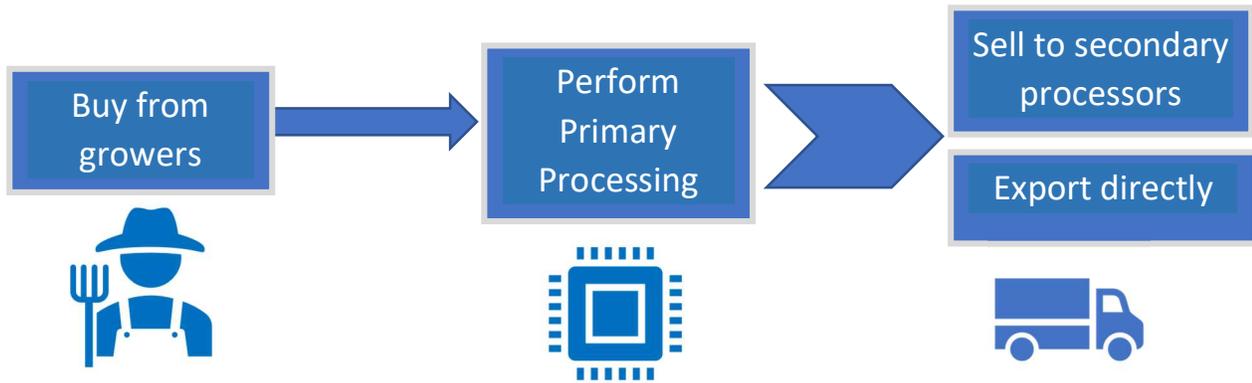
¹ Canadian Halal Meat Market Study (Alberta Agriculture and Forestry)

² Research and Markets: Global Pet Food Market Report 2019

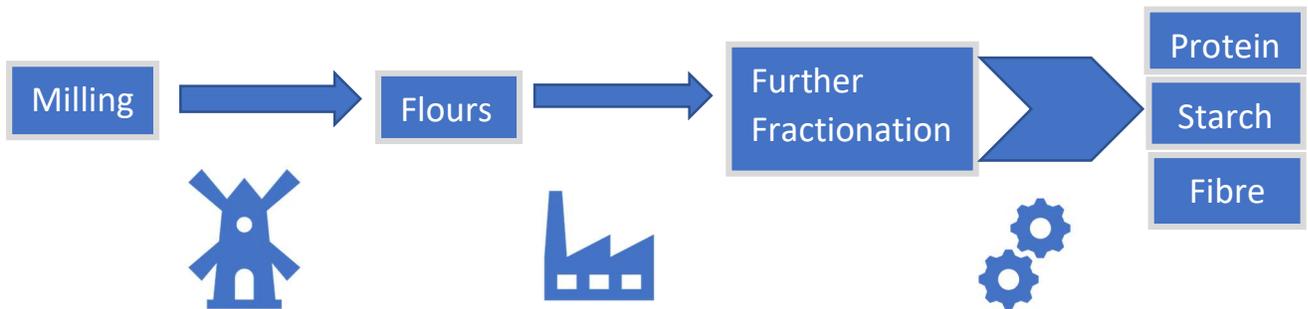
³ CISION Newswire

Potential value chain with investment potential

Pulse Consolidators



Pulse Ingredient Manufacturers



Food Manufacturers



High-Potential Plant Protein

Pulses

Pulses have a wide range of application including their use in vegetarian/vegan foods, protein/energy products as well as pet food.



188,000

Acres of Peas

Source: 2016 Census of Agriculture, BRAED

Canola

Canola-based ingredients including canola meal are high-potential functional food ingredients. Canola meal, a by-product of canola crushing, is ideal for use as animal feed due to its high-protein content and amino acid profile. According to the Canola Council of Canada, when used in dairy rotations, it can increase milk production by one litre of milk, per cow, per day.



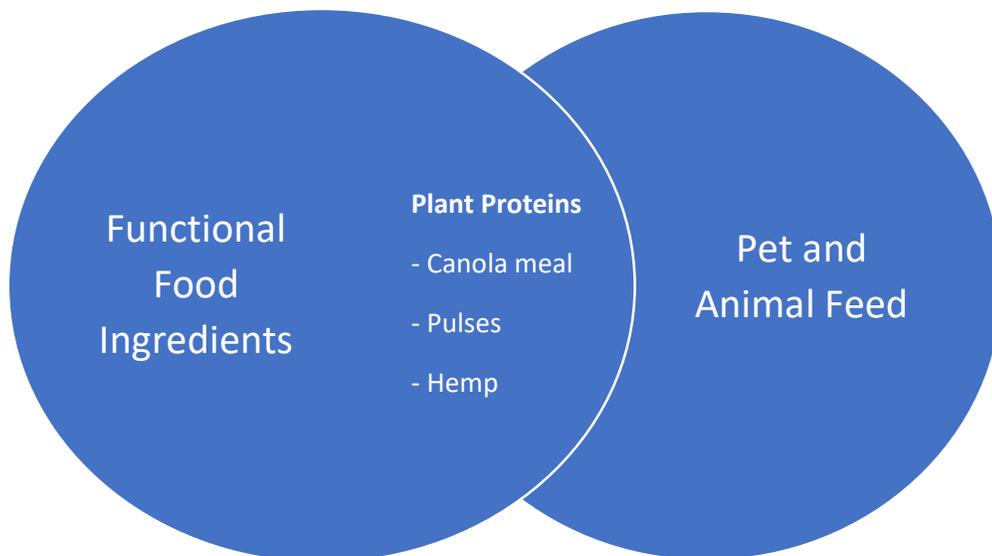
845,000

Acres of canola

Source: 2016 Census of Agriculture, BRAED

Hemp

Hemp is a high-potential emerging crop that is becoming popular among an increasingly health affluent population. Hemp is also being incorporated into pet food. Products such as hemp hearts are trending across Europe and North America.



Pea Processing

Dry pea and bean farms in the BRAED region have increased by 367% from 2011 to 2016 according to the latest Census data. Further, the number of acres dedicated to peas increased by 224% from 2011 to 2016.⁴ The growing interest in pulses is reflected across the province, with the most recent census showing large increases in seeded acres across Alberta (as illustrated by the table below).

Seeded Acres 2016			
	Alberta	Canada	% Alberta
Beans, all dry	45,000	287,000	16%
Lentils	565,000	5,840,000	10%
Peas, dry	1,860,000	4,274,000	44%
Total 2016	2,470,000	10,561,000	23%
Total 2012	862,312	6,355,000	14%
% increase 2012-16	186%	66%	72%

Source: 2016 Agricultural Census

The Battle River region is host to several seed cleaning plants located in Wainwright, Camrose County, Lougheed, Alliance and Coronation. The main player in terms of pulse protein processing is W.A. Grain & Pulse Solutions which was the 4th fastest growing company in Alberta in 2015. The company runs several pulse and grain/seed processing facilities in Alberta, illustrating the potential for the market. There are significant investment opportunities for secondary and tertiary processing of pulse into ingredients and higher value products. The following is a list of pea processing facilities in the BRAED region.

Pea Processors in BRAED Region	
Processor	Location
Viterra	Killam
Viterra	Provost
Bashaw Processors	Bashaw
Cargill	Camrose
Cargill	Viking

Source: "BRAED Business Opportunity: Pulse Processing"

⁴ 2016 Census of Agriculture, BRAED

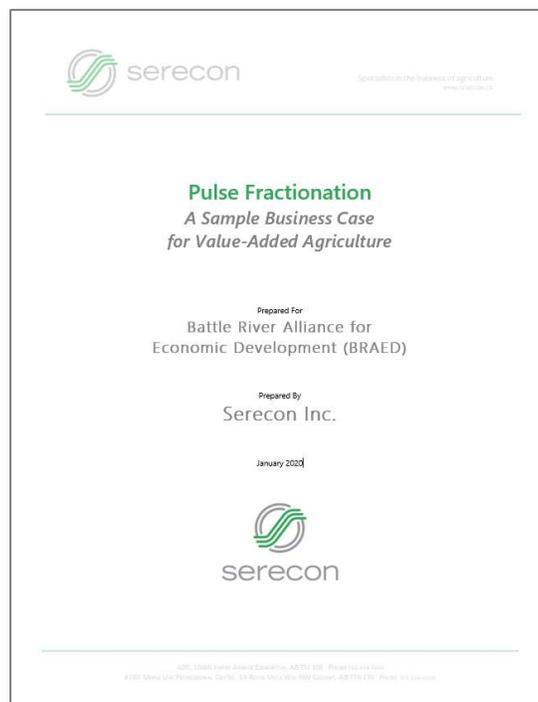
Pulse Fractionation Business Case

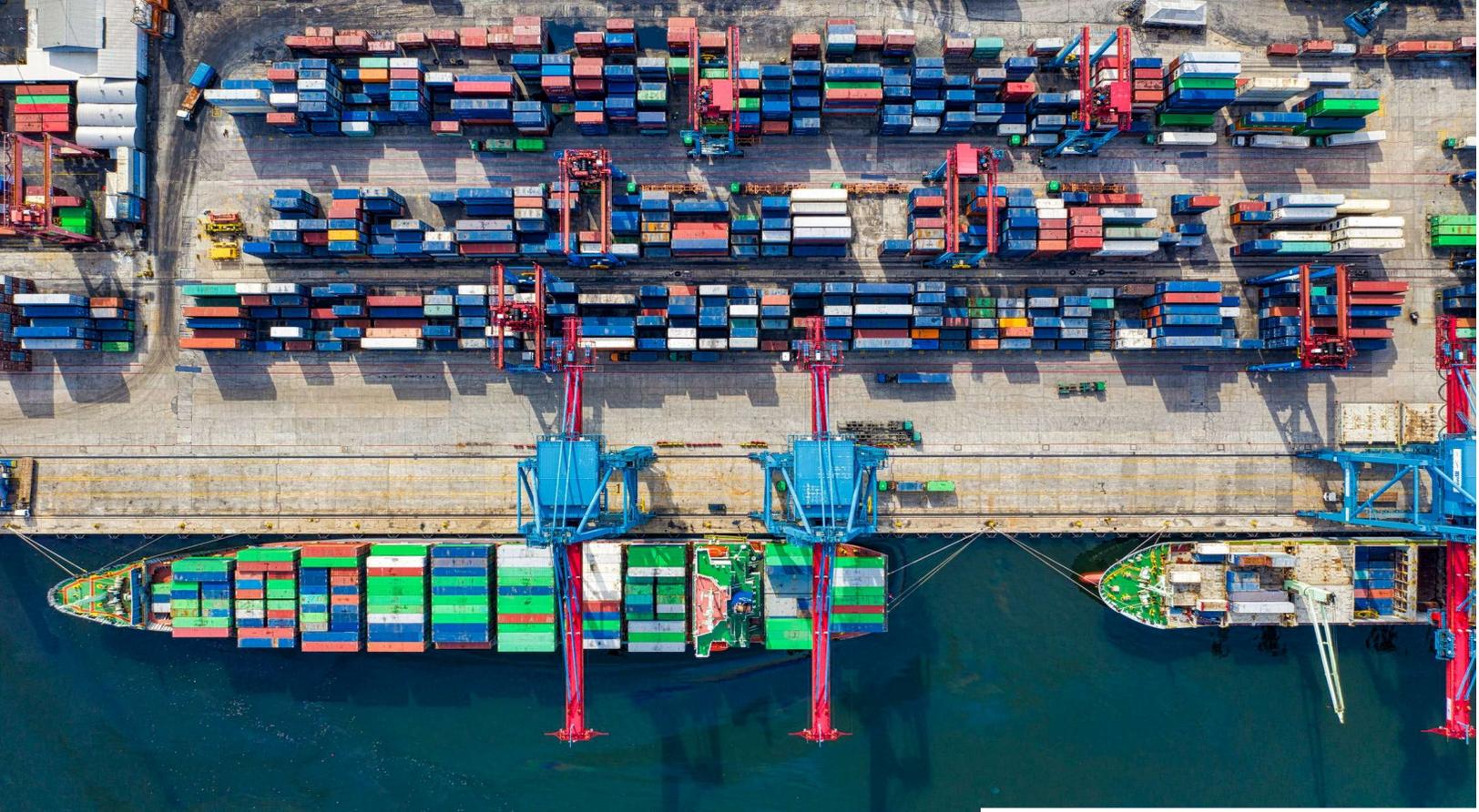
Serecon's management consulting team has drafted a Pea Fractionation Feasibility study that is available for interested investors. The study assesses the practicality of a pea fractionation plant in the Battle River Region. The comprehensive study provides a detailed analysis of expenditure requirements needed to establish and maintain a viable operation.

Yellow pea fractionation facilities extract protein, fibre and starch component ingredients from yellow peas to obtain concentrates and isolates. Fractionation typically takes the form of a dry or wet method. Both methods require the hulls to be removed and the seeds milled into flour. From here the dry method uses an air classification process (turbine) to separate out the starch and protein fractions, whereas the wet method pulps the flour using a decomposing agent (alkaline solution) to pull out the protein, which is then dried.

Besides the capital expenditure requirements, the key difference between the two processing methods is the quality of the protein rich fraction being extracted and the need for water. Wet fractionation requires considerable water and must be set up in a location with a good supply. The dry method yields protein fractions containing roughly 53% protein, whereas the wet method yields protein fractions containing roughly 85% protein. Protein is the high-value commodity generated by the processing facilities. However, the advantage wet fractionation gains in higher value protein concentrates comes at a significant start-up cost premium.

Investors are encouraged to review the sample business case regardless of their sector of interest, as it was drafted to provide general information on the opportunities for value-added agriculture and realities of doing business in the Battle River region.



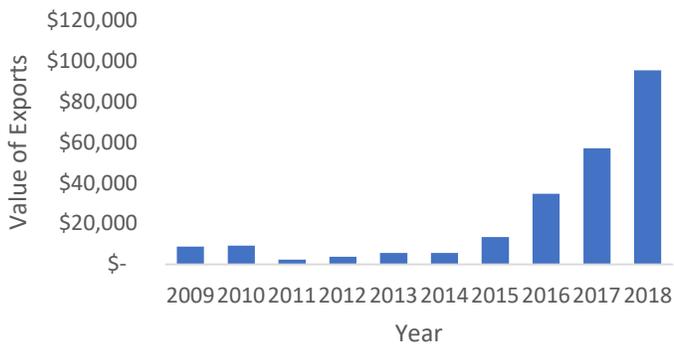


Export Trends

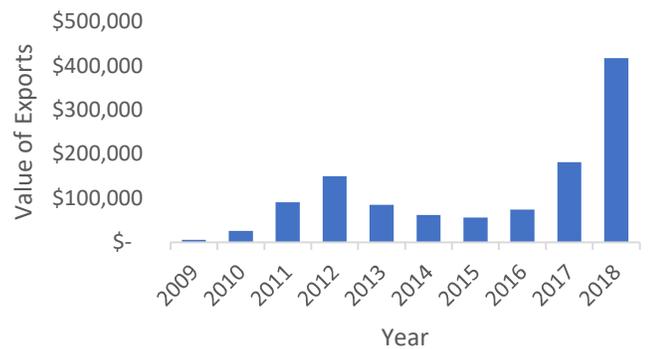
Pulse exports from Alberta have increased in recent years due to a variety of factors including:

- Increased provincial pulse production
- A declining Canadian Dollar
- Increasing global demand
- The signing of new trade agreements by the federal government (e.g. CETA, CPTPP)

Alberta Lentil Exports (2009-2018)
(Value in '000 Cdn Dollars)



Alberta Pea Exports
(Value in '000 Cdn Dollars)



Source: GoC (Trade Data Online)



Reach out to us today!

For inquiries on investment, economic development or community information, feel free to contact us. Our staff will provide you with direction to thrive in the Battle River Region including support with:

- Additional statistics, maps, and information regarding the region
- Connections to local landowners and developers
- Grant and loan programs
- Site selection

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This document is current as of Dec 31, 2019.
Please check our website for updated information.