

# INDUSTRIAL HEMP PROFILE



**Alberta HUB**  
Where opportunity comes to life

The Alberta HUB region is emerging as a global leader in growing industrial hemp for fibre production, processing and manufacturing. Hemp is a highly versatile crop that can be grown for seed, fibre and cannabidiol (CBD). The Alberta HUB region has the proven “Northern Advantage” for growing hemp for fibre. With long summer days, the area is well suited to grow industrial hemp varieties. The region’s high yields of fibre biomass are prized by the multitude of companies looking to convert these feedstocks into a wide range of products.

The Alberta HUB region has a very strong Agriculture sector with Gross Farm Cash receipts reaching nearly \$1.8 billion in 2021. The Alberta HUB region contains over 3 million cultivated acres, which is 12% of Alberta’s total. Farmers in the Alberta HUB region have been very innovative in growing and harvesting hemp. They see the potential in placing hemp in their rotation.

## The Growing Market

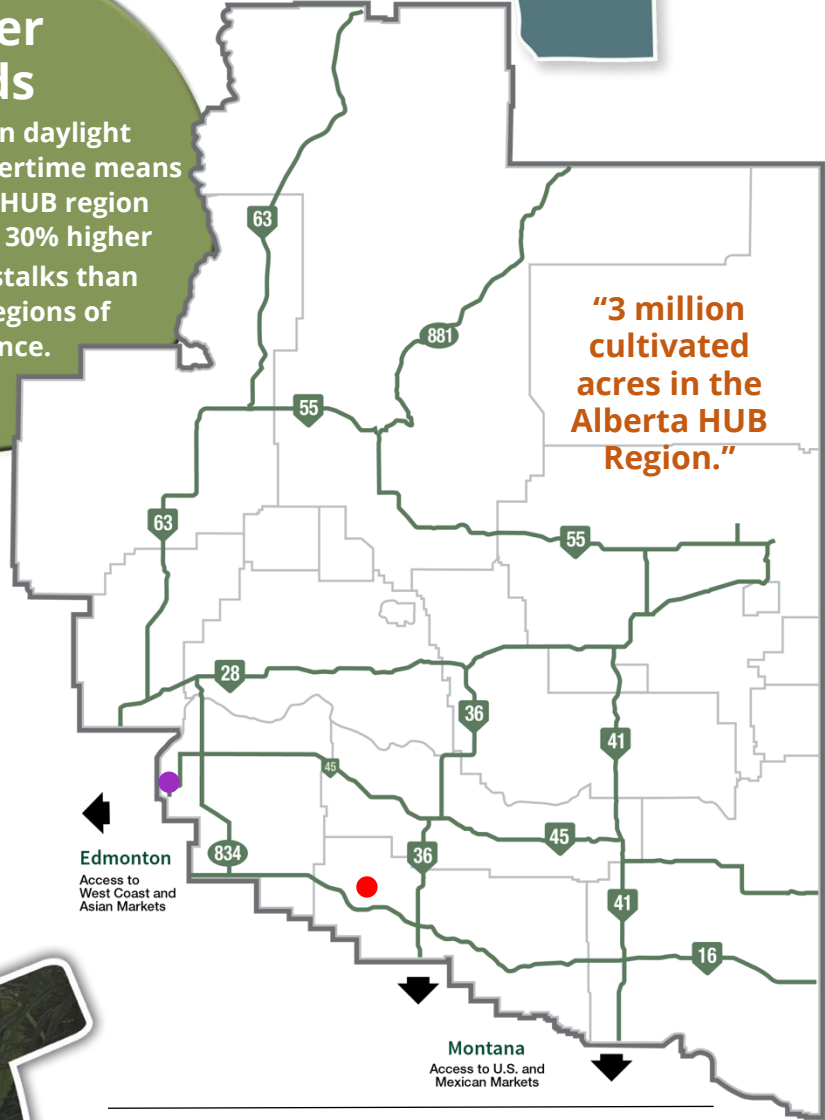
The future of the natural fiber composites (NFCs) market is attractive with opportunities in the automotive, building, construction and especially textile industries. The global natural fiber composites market is forecast to grow at a **CAGR of 33% from 2022 to 2030**.

Source: [verifiedmarketresearch.com](https://www.verifiedmarketresearch.com)

## The Alberta HUB region features:

- Two main north/south corridors (Hwy 36 & 41) connect to U.S. & Mexican markets
- Highway 16 (east/west) corridor connects to the west coast/Asian markets
- Excellent rail service
- Research/Decortication facilities

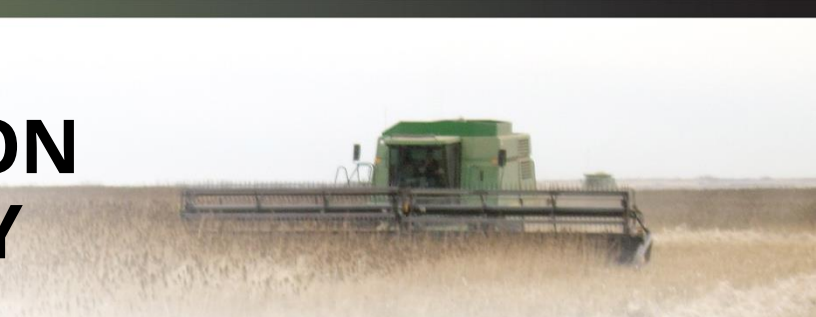
**Higher Yields**  
Longer northern daylight hours in the summertime means that the Alberta HUB region could grow up to 30% higher yields of hemp stalks than in southern regions of the province.



**“3 million cultivated acres in the Alberta HUB Region.”**

- Canadian Rockies Hemp Corporation – Bruderheim (Commercial Decortication Facility)
- Innotech Alberta - Vegreville (R&D/Decortication Facility)

# ALBERTA HUB REGION HEMP FIBRE SUPPLY



## The Northern Advantage

Industrial hemp is adapted to a wide variety of soil and climatic conditions of Alberta. Hemp is a photoperiod (light sensitive) crop. Therefore, in the Alberta HUB region that enjoys longer days in late spring/early summer, the same hemp variety can grow much taller plants and produce 20-30% higher yields of stalks than in the southern regions that receive 2-4 hours less of daylight during this period. This “Northern Advantage” predestinates hemp to be a significant fibre crop in the Alberta HUB region.

**The Alberta HUB region has the climate and extensive farming capacity to grow hemp. The region features 5,333 farms totaling 3,001,260 cultivated acres.**

## Hemp Varieties

Industrial hemp is grown primarily for its seeds and fibres, or in some cases both - “dual type”. However, seed growers want very tall fibre varieties, while short grain type varieties are less useful for fibre production due to low straw yields of poor quality. Varieties indicated as grain/dual typically have been ground for seeds, but they also produce significant yields of straw that is acceptable for fibre processing.

Straw from the hemp crop, which was largely considered as a waste product in the past, is currently used to produce hemp fibres, which is processed further and can be used in a variety of industries such as textile, bioplastics, and pulp and paper. The Alberta HUB region has ideal growing conditions for several hemp varieties, some with a significant biomass proportion growing 2 to 3 meters in height.

The variety a farmer utilizes is based on geography, processor needs, and different contracting companies (seed or fibre) may have different preferences.

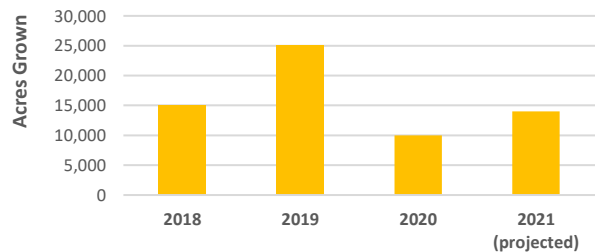
Finola leads Registered Hectareage for Cultivation of Industrial Hemp in Alberta with 8,753 HA in 2021, however, other varieties have higher fibre yields:

Summary of Relevant Varieties and Predominant Usage		
Variety	Type	Owner
X59	Grain/Fibre	TerraMax
CFX-2	Grain/Fibre	Hemp Genetics International
CRS-1	Grain/Fibre	Hemp Genetics International
CFX1	Grain/Fibre	Hemp Genetics International
Canda	Grain/Fibre	Parkland Industrial Hemp Growers
CanMa	Grain/Fibre	Manitoba Harvest
Altair	Fiber	UniSeed
Anka	Fiber	UniSeed
Rigel	Fiber	UniSeed
Silesia	Fiber	InnoTech Alberta
Petra	Fiber	Parkland Industrial Hemp Growers
Joey	Fiber	Parkland Industrial Hemp Growers

Source: Innotech Alberta

**Farmers in the Alberta HUB region have been very innovative in growing and harvesting hemp. They see the potential in placing hemp in their rotation as a profitable crop that also sequesters carbon.**

## Hemp Acres Grown in the Alberta HUB Region



Source: Innotech Alberta and Communities (Numbers are app./subject to change)



There are **thousands of** known uses for hemp, like Hempcrete. The heating and compressing of hemp fibers can create building materials **superior to wood** in strength, quality, and cost. Hemp is heat, mildew, pest, and rot resistant. Hemp fabric is softer, warmer, more water resistant and more durable than cotton. Hemp fabric also uses less chemicals to produce.

# ALBERTA HUB REGION PROCESSING OPPORTUNITIES

## The Decortication Opportunity

InnoTech Alberta in Vegreville conducts the majority of the research on Hemp and is equipped with a decorticator (pilot scale). At present the fibre/hurd it produces through decortication is quickly purchased by companies in Alberta. Canadian Rockies Hemp Corporation is a commercial scale decorticator facility for industrial hemp in Bruderheim with a capacity of up to 30,000 tonnes of fibre/year. Full-scale commercial decortication facilities in the Alberta HUB region to capitalize on the industrial hemp is a true opportunity.

With decortication facilities setting up in the Alberta HUB region, the opportunity to establish a value-add manufacturing facility utilizing industrial hemp fibre/hurd makes good business sense as you are close to a guaranteed feedstock, which minimizes risk.



Source: Jan Slaski, Innotech Alberta

## Locating in the Alberta HUB Region is Key

The key to processing hemp straw is the **NEED** to be in close proximity to the feed stock, which is in ample supply in the Alberta HUB region. Hemp transport costs are high because it is bulky. According to Jan Slaski of InnoTech, “a processing facility should be within 100-150km of the feedstock source.”

## INVEST IN THE Alberta HUB Region

The Alberta HUB region offers a secure source of feedstock for value-add fibre and food processors.

The Alberta HUB region has the resources to assist businesses to develop new food and fibre-based material.

A skilled labour force with a strong agriculture background is available in the Alberta HUB region.

First Nations and Metis Settlements look forward to partnering with companies in the Industrial Hemp sector.

Alberta's corporate tax rate is 8%, making the combined federal and provincial rate 23%, which is among the lowest corporate tax rate in North America.

## The Alberta HUB Regional Hemp Value Chain

“The Northern Advantage” makes the Alberta HUB region a natural fit to grow hemp and the economics of shipping hemp also make it a great location for processing and manufacturing.

Feedstock → Decortication → Manufacturing

# ALBERTA HUB REGION MANUFACTURING OPPORTUNITIES

## The Manufacturing Opportunity

Locating next to secure feedstock and decortication makes the Alberta HUB region a top choice for hemp manufacturing.



## Alberta HUB Research and Development

The Alberta HUB region offers entrepreneurs and manufacturers access to a profitable hemp sector. The region features emerging and existing decortication facilities, research centers along with Lakeland College, Portage College and the University at Blue Quills. The Lakeland Agriculture Research Association (LARA) offers additional research support.



## THE ALBERTA HUB INVESTMENT ADVANTAGE

### Access to Markets

- Highways 41 and 36 are main North/South corridors connecting to U.S. and Mexican markets.
- Highway 16 (4-Lane) connects the region east-west to strategic ports accessing Asian markets.
- CN and CP Rail serve the region with rail access points.
- Nine regional airports, daily air service from Lloydminster Airport to Calgary and close access to the Edmonton International Airport.

### Land

- Highly accessible and reasonably priced, commercial, and industrial land is available.

### Demographics

- A regional population of approx. 140,000 providing an excellent labour pool and access to the Edmonton market with a population of well over 1.2 million.

### Applied Research

- InnoTech Alberta, which conducts most of the alternative crop research in Alberta including industrial Hemp and home of the industrial fibre decortication research facility.
- Advanced innovation-based applied research programs at Lakeland College in Crop Research, Energy Research and Business Development.
- Lakeland Agriculture Research Association (LARA)

### Education

- Skilled labour is available regionally through post-secondary education at two Colleges: Lakeland and Portage as well as the University at Blue Quills. Over 38,000 have a post-secondary certificate, diploma, or degree in the region.



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