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# IMAGENATION

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## Biotechnology in Saskatchewan

Saskatchewan researchers and companies are using biotechnology to grow hardier and more productive crops, understand how infectious diseases work, and develop cleaner sources of energy from grains, oilseeds and forest waste.

Saskatchewan boasts two world class universities and research parks. Innovation Place, located adjacent to the University of Saskatchewan in Saskatoon, is one of North America's most advanced research parks for agriculture, genomics, pharmaceuticals and bioproducts. The University of Regina and Regina Research Park are generating environmental research and technologies that have attracted international attention and investors.

### Saskatchewan's biotech industry...

- Hosts approximately 30% of Canada's activities in agricultural biotechnology
- Invested over \$120 million in genomics research and infrastructure
- Saskatoon is cited as #2 in Midwest North America in business cost competitiveness according to KPMG
- Has two commercially active bio-diesel additive companies
- Is a Western Canadian leader in bio-ethanol production
- Has close to 500 biotech products approved or on the market
- Possesses approximately 44% of Canada's cultivated farmland, suited to supply crops for non-food uses such as bio-fuels, pharmaceuticals and other industrial products

### Key products in Saskatchewan

- According to information from the Saskatchewan Agrivision Corporation, the province provides a range of functional food and nutraceutical products including<sup>+</sup>:
- Encapsulated and bottled oil products such as Borage, Evening Primrose, Flaxseed, Hemp, Fish Oil, Conjugated Linoleic Acid (CLA), Pumpkin Seed and Canola phytosterols.
- Flaxseed lignan extracts for the health food market produced in the form of capsules, bars and blended with flax oil.
- Nine of the twenty top selling herbs in the U.S. and Canada are currently being produced on a limited scale in Saskatchewan (Echinacea, Garlic, Goldenseal, Feverfew, St. John's Wort, Valerian, Ginseng, Astragalus and Cayenne). Other health food herbs are under study.
- Natural health products derived from elk antler and emu in the form of capsules and powders.
- A variety of functional foods and ingredients including bran, wheat bran, high oleic sunflower oil, modified fatty acid canola oils and milled flax seed.
- Products being incorporated into nutraceutical and functional foods include Fenugreek extracts, Saskatoon Berries and Red Clover.

<sup>+</sup>Hickling Arthurs Low, "Cluster Studies for NRC Technology Clusters Initiatives", (Ottawa: Hickling Arthur Low, 2006). p. 23.

### Statistics

Private companies	57**
Public companies	40
Employees (private)	750
Revenues	\$94 million*
R&D expenditure	\$23 million*

\*Source: Statistics Canada, 2003

\*\*Source: Conference Board of Canada, 2007



Source: Ag-West Bio unless otherwise noted, [www.agwest.sk.ca](http://www.agwest.sk.ca)