Facts & Figures About Canadian *Field Crop Farming in Canada*

Field Crop FACT SHEET

In General:

- The crop grown with the largest acreage in Canada is wheat, followed by canola.
- Corn and wheat are widely grown across the country. Soybeans are found mostly in Ontario, Quebec and Manitoba while canola is grown principally in Western Canada.
- In Ontario corn is the most common field crop, while in the western provinces, wheat is the most common.
- Canada's malt barley is top quality, making Canada the second largest exporter of malt world-wide.
- Grain and oilseeds can be found in products we use every day around the home and office.
- Sugar beets are grown in specific areas of Ontario and Alberta. There is only one sugar beet processor in Canada, found in Alberta.
- Canada is the world's largest exporter of pulses (beans, peas, chickpeas and lentils). Pulse crops contain nutrients found in both the vegetable and meat food groups, including significant protein, fiber, folate, iron and other minerals.
- GPS technology is used on farms to track nutrient levels and yields in different parts of a field, helping farmers fertilize more accurately and reducing the risk of fertilizer runoff.

You were asking about...Field Crop Farming

Basics:

Major field crops grown in Canada include wheat, canola, barley, corn and soybeans. Other crops include rye, oats, white beans and mixed grains. Several specialty crops, which are limited to a very small area of land, are also grown in certain regions. Crops grown vary depending on the specific growing abilities of each region and on the farmers' needs.

Some farmers grow crops specifically to sell them. These farmers are called "cash crop" farmers. Many livestock farmers grow crops as well. These crops can then be harvested and used to feed the animals on the farm. If production is higher than what the farm requires, excess crops will be marketed and sold.

Crop Rotation:

Each crop requires a different set of nutrients from the soil, so farmers develop a crop rotation which allows them to maximize nutrient use from and return to the soil. Crop rotation also benefits the soil in a number of other ways. Changing the type of roots in the soil each year will benefit soil structure. Fertilizer use can also be reduced as crops will add nutrients back to the soil which crops in a subsequent year can use. Certain insects and diseases which target field crops can live in the soil over the winter. Since many insects and diseases target specific crops, rotating the crops allows for a natural method of protecting against pests, therefore reducing the amount of pesticide needed.

Tillage Systems

In the past, farmers would till (turn up) the soil with several different machines between crops. Tillage is done to incorporate crop stubble into the soil as a form of fertilizer and reduce the amount of weeds present.

Modern farmers are using more conservation tillage or no-tillage systems than their ancestors did. In conservation tillage, the soil is still tilled, but not as much as it would have been in the past. The crop stubble will not be incorporated into the soil as completely as it would be in a more intensive tillage system. Modern tillage equipment does the job of several different old pieces of equipment, limiting the number of passes a farmer has to make on the field. This reduces fuel consumption, emissions, and soil compaction.

No-tillage systems do not till the soil at all between crops. Stubble is not disturbed between harvesting one crop and planting the next. In no-till systems, crop rotation is necessary for assisting with pest control and improving soil structure.

Cropping Seasons

Most crops, but not all, are planted during the spring and harvested during the fall. Wheat can be planted in either spring or fall, and is harvested during the summer. Hay fields are harvested multiple times each year, and grow hay for three to four years at a time. Spring planting is started during late April or early May in most years, once the threat of frost is minimized.

After the Harvest

Once grain and oilseed crops are harvested, they are either stored on the farm in large grain bins or sent to a grain elevator or feed mill for storage or sale. Grain elevators buy crops from a large number of farmers to resell to large customers such as feed mills or processing plants.

Hay can be harvested wet or dry. Harvested wet, it is placed in silos to ferment and become haylage. Harvested dry, it is baled and stored in barns or sheds for future use. Hay is eaten by ruminants, such as cattle, sheep, goats and deer, but also by rabbits and horses.

Crop Trivia

Did You Know...

- Field crops can be found in a wide variety of everyday household products, including car parts, cosmetics, dyes, clothing and more.
- At the 2009 Royal Agricultural Winter Fair, an entire house was built and furnished using products made from soybeans.
- If you ate a sandwich for breakfast, lunch and dinner, it would take 168 days for one person to eat the bread produced by one bushel of wheat.
- Corn is an ingredient in more than 3,000 grocery products.
- 100 acres of soybeans can produce enough soy beverages for half a million people.
- Hay is essentially dried grass. The kind of grass grown depends on the farmer and what kind of animal the hay will be fed to.
- Pot barley has the bran and germ intact, making it a whole grain. Pearl barley has been steam processed to remove the bran.
- Oatmeal goat's milk soap can help soothe and moisturize extremely dry skin, and has even been used by eczema sufferers.
- Canola was in large part invented by Agriculture and Agri-Food Canada scientists and is now the oil of choice for millions around the world because of its nutritional attributes.
- Durham wheat, used for pasta, is grown in western Canada. Other wheat varieties, used for flour, are grown across Canada.

Field Crop Dictionary

- **Hectare (ha):** A hectare is 100 metres x 100 metres. It is equal to 2.5 acres. A hectare is about the size of two soccer fields.
- **Acre** – An acre is slightly smaller than a soccer field.
- **Integrated Pest Management (IPM)** – A system of managing pests (weeds, insects, disease, fungus, nematodes, rodents) that involves more than one control method – mechanical (e.g. tillage) cultural (e.g. using certified seed), biological (e.g. use of a pest's natural enemies), or chemical (e.g. pesticides) – in a program that is both economically and environmentally sound.
- **Soil type** – The texture of the soil – based on the percentage of sand, silt, and clay.
- **Hybrid** – Plants produced by crossing two or more inbred lines of plants that are genetically quite different.
- **Tillage** – Cultivating the soil to prepare for planting or to reduce weeds.
- **Reduced, Conservation or No-till farming** – Reducing or eliminating tillage in order to minimize soil disturbance and maintain as much crop residue cover as possible. This leads to better protection of soil from wind or water erosion, less fuel consumption, and better carbon sequestration.
- **Crop Rotation** – The practice of planting different crops on a field year after year to minimize pest population build up, improve soil health, avoid pesticide resistance issues, and diversify (e.g. a common rotation in Ontario is soybeans, wheat, and corn repeated every three years or with hay included for livestock farms).

Field Crop FACT SHEET

What about Biodiesel and Ethanol

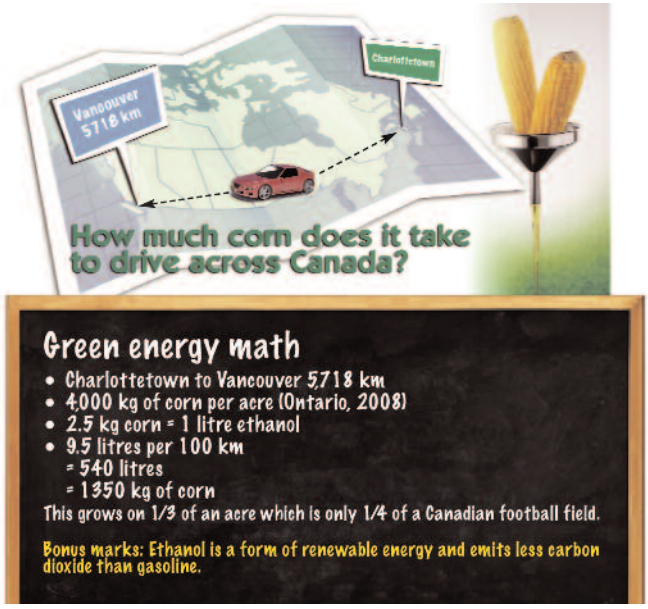
Biodiesel is a clean-burning alternative fuel produced from renewable resources, like animal fats and plant oils. Current biodiesel markets are in mass transit, marine transportation and other sensitive areas such as mines.

Quick fact: One bushel of soybeans produces about 1.5 gallons of biodiesel. For more info, see www.greenfuels.org.

Animal fat may someday come to your local gas stations. Biodiesel made from animal fat or tallow has a positive energy balance (meaning it contains more energy than it takes to make), emits almost no sulphur, and unlike petroleum, is a renewable fuel. Look to your farmers for this and other innovative, green energy sources in the future.

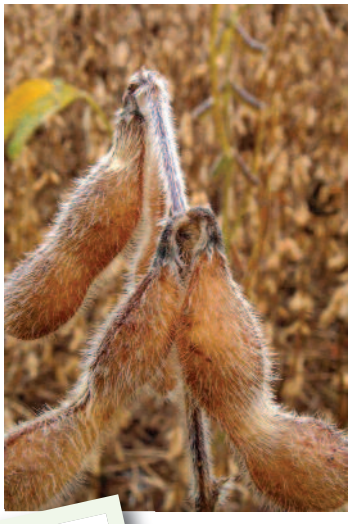
Ethanol is a renewable fuel made from plants. Ethanol made an early debut as a renewable fuel back when Henry Ford designed the Model T. In 1935, Henry Ford used 75,000 acres of soybeans in manufacturing and as a binder in his foundry. But gasoline outpaced it because it was easier to use in engines and the supply was cheap and plentiful. Today, ethanol is fast gaining on its old rival, as consumers want cleaner fuels for the environment and human health.

Ethanol is being added to gasoline. In Ontario alone, implementing a five per cent blend of ethanol in gas is creating a market for 50 million bushels of corn annually and reducing greenhouse gas emissions by the equivalent of 200,000 cars.



Plastics from plants

Today, 21st century car makers are again turning to plants like corn and soybeans to make car parts. They're cheaper and often stronger than plastics made from petroleum and more environmentally friendly too. Foam made from soybeans can be found in the seats of nine different Ford vehicles. Environmentally-friendly engine oils and lubricants are now being made – and used by a growing number of Canadian municipalities and businesses – out of soybean and canola oils.



About Field Crops – Additional Website Links

Canada Grains Council
Visit www.canadagrainscouncil.ca/

Grain Growers of Canada
Visit www.ggc-pgc.ca

Canadian Wheat Board
Visit www.cwb.ca

Grain Farmers of Ontario
Visit www.gfo.ca

Ontario Bean Growers
Visit www.ontariobeans.on.ca

Canadian Seed Growers' Association
Visit www.seedgrowers.ca

Canadian Canola Growers Association
Visit www.ccga.ca

Alberta Canola Producers' Commission
Visit www.canola.ab.ca

Ontario Canola Growers' Association
Visit www.ontariocanolagrowers.ca

Alberta Sugar Beet Growers
Visit www.absugar.ab.ca

PEI Potatoes
Visit www.peipotato.org

Ontario Potato Board
Visit www.ontariopotatoes.ca

Tour an Ontario crop farm on line at www.virtualfarmtours.ca

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Prepared by:

FARM & FOOD Care ONTARIO

Farm & Food Care Ontario
www.farmfoodcare.org
519-837-1326
info@farmfoodcare.org