

Teacher Fast Facts & Vocabulary Support



PROJECT Agriculture
Project-Based Learning and
Teaching Series

The Amazing Race

How does agriculture make regions unique?



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The Amazing Race

How does agriculture make regions unique?

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Background Fast Facts

The **Fast Facts** that follow can provide you with some additional background related to regions, natural resources and human activities in Canada and Alberta and may support class or small group discussions you facilitate with students.



Agriculture, including dairy farming, is the human activity of raising animals and growing crops for food and other products. The amount of land that is used for agriculture in Canada only makes up about seven percent of the actual land surface. The remaining 93 percent of land is not available for farming.



Canada's agricultural activities can be described as land-based. This means that physical land is necessary for farmers to work. Therefore, the climate, type of soil, and topography influence the type of farming that can take place.





Dairy farming starts with natural resources, as cows need land, soil, water, and sunlight to produce milk. When milk is transported to a dairy processing plant, it is made into many different products. Dairy farming is a primary industry, as it depends directly on natural resources. Dairy farming uses these natural resources to raise cows that produce milk. Milk is an ingredient used to make many products.




Dairy processing adds value to Canada's natural resources because farmers use the land, soil, air, sun, and water to raise cows and provide milk to dairy processors. These dairy processors, in turn, make milk into a number of different products. There are many different types of jobs that are created by the dairy industry.


Statistics Canada provides updates of information from their latest census results. This information can reflect current statistics, trends and issues. Consult the *2016 Census of Agriculture* webpage for the latest reports or tools at www.statcan.gc.ca/eng/ca2016


 Dairy processing means that the dairy industry is also a secondary industry. A secondary industry uses materials or ingredients made by primary industries. Secondary industries change these materials or ingredients into products. A dairy processing plant is an example of a secondary industry.


 In 2016, dairy production in Canada generated total net farm receipts of \$6.17 billion and generated sales of \$17.7 billion. This dairy production made up 15% of Canadian food and beverage production. The dairy industry is the third most valuable in Canada's agricultural activities and production, following grains and meats.

 Canada's dairy farms are spread across the country:

- Most Canadian dairy farms – about 82% – are found in Ontario in Quebec.
- The Western provinces have about 13% of dairy farms.
- The Atlantic provinces have about 5.5% of Canadian dairy farms.
- There are about 959 600 dairy cows in Canada. The typical Canadian dairy farm has 85 cows. The main breeds of dairy cows are: Holstein (comprising more than 93% of Canadian dairy herds), Ayrshire, Jersey, Brown Swiss, Canadienne, Guernsey, and Milking Shorthorn.

 Canada's dairy products are diverse, and range from aged cheddar cheese to specialty cheeses, ice cream, and dairy drinks in addition to table milk, cream, and butter. In 2016, 14% of Canadian plants were owned by the three largest processors in the country – Saputo, Agropur, and Parmalat. These plants process approximately 75% of the milk produced in Canada.

 In 2016, dairy products shipped from approximately 471 dairy processing plants (270 of which are federally-inspected) were valued at \$17.7 billion, accounting for 15.8% of all processing sales in the food and beverage industry in Canada.

 Fluid milk products, which include table milk and fresh cream, represent 28.9% of milk production or 97.8 million kg of butterfat, while manufactured dairy products such as butter, cheese, yogurt and ice cream represent 71.1% of production or 240.2 million kg of butterfat.



Vocabulary Support

The **Vocabulary** list provides a starting point for vocabulary that students will find in the student resources or potentially in class discussions. Definitions are embedded in sentences or provided in brackets beside the term.

Some of this vocabulary may be challenging for students. Vocabulary can be explored in advance to support learning of concepts and development of deeper understandings of content. Alternatively, some students may find vocabulary more relevant when explored in context. Add terms that students identify and define through their research to a vocabulary list.

Agriculture, or farming, is both a natural resource and a human activity. Agriculture depends on the natural resources that are available.

Agricultural commodities are natural resources that are used for food products.

Centres of population refers to the number of people living in surrounding or nearby communities.

A **commodity** is an item or material that is bought and sold.

Milk is used to make products that people **consume**, or eat.

A **dairy processing plant** is where milk is made into various products.

A **demand** is the desire that people have to buy a product, for the milk that cows make.

Demographics is information pertaining to the study of a population.

An **ecozone** is formed where there are similar types of plants, animal life, climate, landforms and human activities. The living and non-living characteristics of one ecozone are different from those found in another ecozone.

Many of the **expenses**, or costs, that dairy farmers have to pay when they are raising dairy cows are connected to the price of oil and gas.

First Nations refer to the various governments of the First Nations peoples of Canada. There are over 630 First Nations across Canada, with 46 First Nations in Alberta.

Forage means crops, like hay and grass, that are grown to provide food for cattle and horses.



Food processing is a method used to change food ingredients into a product. For example, grains are processed into flour and made into many different foods, such as bread, cereals, crackers, and pasta.

Haylage refers to grass that is grown and cut the same as hay but left to dry for less time.

Horticulture involves growing and caring for plants, like vegetables, fruits and flowers.

Homogenized means breaking up the fat in milk into very small particles, so that the fat and milk can then be blended together in a smooth mixture.

Indigenous peoples are the descendants of the original inhabitants of North America. First Nations, Inuit and Métis peoples have unique heritages, languages, cultural practices and spiritual beliefs

All dairies must have **licenses**, which give them official permission from the government to operate. Dairies follow rules and laws to make sure milk is safe and healthy.

Innovation can refer to the creation of a new idea, device or method. It can also refer to a situation in which an idea is applied to a different situation.

Maps are tools that people use to help us see locations, places and features in a large area.

Métis Nation refers to a group of individuals who are associated with a recognized Métis family or community and who self-identify as Métis people.

Metropolitan areas are large cities and the towns, villages or land areas close to them. There are 33 metropolitan areas in Canada.

Natural resources include the land, air, soil and water. They also include wildlife, plants and minerals.

Oilseed crops include canola, soybeans and sunflowers. They are grown for the oil contained in the seeds.

Pasteurization is the process of heating a food to a high temperature and then cooling it quickly. The heating process kills any harmful bacteria.

Products can be called **perishable**, which means they can spoil quickly.

Dairy farming is called a **primary industry**, as it changes natural resources into an ingredient or material that is used to make other products.

Regions are areas that share common characteristics. They are identified by the natural features or geographic characteristics that an area shares.

A **rural** community is found on a more open area of land with less settlement and fewer buildings.

Silage refers to crops that are harvested while they are still green, packed into a silo, and covered with plastic to remove the oxygen from the crop plant.

A **secondary industry** uses materials or ingredients made by primary industries. Secondary industries change these materials or ingredients into products. When milk is transported to the dairies, it is pasteurized.

Taiga (TY guh) is a geographic term that is used to describe areas with a cold climate, covered by dense coniferous forests, or woodlands.

Many First Nations and Inuit people travelled throughout **traditional territories**, the lands their ancestors had also occupied.

Urbanized means that more people are living in urban centres, such as towns and cities.

A large **urban area** has a high population with many buildings, roads and facilities that support the people who live there.

An **urban** community is an area that is built up and settled by many people. Cities and towns are urban communities.

Urban sprawl, or the expansion of city areas, can “eat up” land that is suitable for agriculture.