

Beef



History

Cattle for milking, meat, and locomotion accompanied the earliest European settlers to Canada, and from that basis developed one of the major economic drivers of the Saskatchewan rural economy. Herds were present in the Red River Valley by 1824, and by 1864 had spread into the Northwest Territories as far as Fort Edmonton. Canada was committed to settlement by homesteaders and opposed to an open-range policy. However, in 1881 the Macdonald government reluctantly allowed for some very large leases across what would become southern Alberta and into southwestern Saskatchewan, stocked with longhorn cattle from the United States. Unlike the farmers who stored winter feed for their stock, the ranchers from the south expected the cattle to graze all winter. A series of devastating winters for cattle, the incursion of the Canadian Pacific Railway (which was given every other section of land along the right-of-way through ranching country) and the North-West Resistance (fought over Métis land claims) convinced the government to end the large ranch period after less than two decades.

A Day in the Life of a Beef Farmer

Farmers check their cattle every day to keep them healthy. Cattle producers must be efficient to stay in business. This requires proper feeding, care, handling, and health maintenance – which sometimes means treating cattle with medicine. It is important to take care of health problems when they occur so the sick animal does not make the rest of the herd sick, too. A herd is a group of cattle that are in the same pen or on the same farm.



Farmers are busy throughout the year. In winter they ensure they have plenty of feed and shelter from the wind. Cattle in Canada today are specifically chosen for their ability to handle Canadian weather, including its winters. When it is calving season, the farmer checks the cows several times a day in case the cow is having trouble giving birth. Baby calves need to be ear-tagged and the bull calves are castrated. In the summer when the cows are in the pasture the farmer is busy growing feed like hay, barley, and other plants for them to eat in the winter.

Since it's important for cattle to be healthy, farmers talk to their veterinarians about how to prevent them from getting sick. They give advice on ways to keep cattle herds healthy such as to vaccinate them (just like humans), to look for risks, and to make a plan to help them stay healthy. However, when animals do get sick or injured, farmers call their veterinarians again to help make their cattle healthier.

Production

A calf is a baby beef animal. It weighs about 90 pounds when it is born. The calf will try to walk soon after it is born so that it can eat. Calves nurse from their mother's udder several times a day. The udder is part of the female cow that provides milk for the calf. Calves stop drinking milk when they are about six months old. When calves learn to eat and drink on their own, they are weaned. Weaning separates the cow from her calf so the calf can eat more food and grow. The calf usually weighs between 500-600 pounds at weaning; they are called feeder calves.

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Heifers are young females, which are not full grown, and that have not had calves. When heifers are bred to a bull and have a calf, they are called a cow. Cows are female breeding animals. It takes 9 months for a calf to be born and this period of time is called gestation. A heifer will have her first calf at the age of two. Cows will have one calf every 12 months.

Bulls are males and are used for breeding. Steers are males which are neutered, like pets, so they cannot reproduce. The meat that we get from full-grown cattle (about 18 to 24 months old) is called beef. A live steer averages about 1,450 pounds and yields 870 pounds of edible meat.

There are a number of steps involved in the Canadian beef industry to get beef from “gate to plate” or from cattle producers to the consumers:

The Cow-Calf Farm: Beef production begins with cow-calf operations which raise calves for the industry. Cows are selected for their mothering ability, beef quality, and other desirable traits. Mating takes place in early summer with peak calving taking place the following spring after the end of harsh weather.

The Backgrounding Phase: After weaning, calves are over-wintered on hay-based diets until their weight increases to about 900 pounds. This process is known as backgrounding, which helps the cattle grow their muscles and bones. During this phase, beef producers take care to provide feeding and bedding areas that are sheltered from the elements and keep the animals comfortable and protected. Sometimes they are found in a feedlot, and other times they are in a pasture with wind breaks.

The Feedlot Operation: This part of conventional beef production usually takes place at the feedlot where

cattle are brought to a finished weight. Beef production on a feedlot begins with a diet made up of forages and progressively moves to about 80 per cent grain, which is started in the backgrounding phase. Grain is fed to cattle to produce flavourful, tender, marbled beef. Cattle will spend around 60 to 120 days on a feedlot before they are sold to processors.

Diet

Cattle are very special animals that eat grass, hay, low-quality grains, and other plant products that people cannot eat. A pasture is a field of grasses and other types of plants that is grown to feed animals. When cattle eat grass, it is called grazing. Cattle graze on land that can't be used for other food production because it is too steep or hilly, or too dry or too rocky for growing crops. Cattle's grazing helps keep the weeds from growing. Keeping this land in grass or pasture helps prevent soil from washing away.

When cattle are properly grazed, they benefit the land by loosening the soil when they walk on it. This allows more oxygen to enter the soil, helping grasses and plants to grow better. Cattle also provide a natural fertilizer to the soil in the form of manure which provides nutrients for the soil.

Farmers cut hay and grass, dry it, and put it in large round bales. Cattle eat hay in the winter when grass doesn't grow. June, July, and August are haying time on most cattle farms. Hay consists of long grasses such as meadow brome and other legume plants like alfalfa that have been cut and dried to use as animal feed. Farmers cut the grass with a big mower called swathers or hay bines then leave it to dry in the field

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for about two days. The dry hay is bundled into bales and stored in barns or in rows on nearby fields.

Sometimes the cut plants are left in the field in rows called swaths or windrows. The cattle will “swath graze” this feed later in the year.

Round/large bales weigh about one thousand pounds. A round/large bale is enough hay for 2-3 days. In the fall, after the fields are harvested, cattle can eat cornstalks left in the cornfields. Grass, hay, and cornstalks are all roughages that cattle eat.

Animal Welfare

Canada’s beef producers work hard to take care of their animals every day. The success of the cattle industry depends on cattle that are healthy and well cared for. The beef cattle industry in Canada follows the Code of Practice for the Care and Handling of Beef Cattle. These Codes of Practice are science-informed national guidelines for the care and handling of animals.

Antibiotics and Cattle

All beef is antibiotic free. In order for it to be sold, a specified withdrawal time must pass after an animal’s last treatment to ensure there are no antibiotics residues remaining in the beef. The Canadian Food Inspection Agency regularly tests for these residues.

There are a few reasons that antibiotics are used in cattle production:

Growth Promotion – Some antibiotics (called ionophores) improve the growth of cattle. There is no evidence that use of these antibiotics causes increased resistance to antibiotics used in human medicine. Also, humans don’t use these antibiotics.

Prevention – If infection can be prevented with the use of antibiotics, it reduces the need for more powerful antibiotics that would be needed if the disease became more serious. Preventative antibiotics are also used in human medicine. However, a farmer needs a veterinarian to provide a prescription to use this medicine, also like human medicine.

Treatment and Control of Disease – Sometimes cattle get sick just like humans. Antibiotics can help stop the spread of disease and help the animal recover.

Antibiotics are used in cattle production to ensure animal welfare. Providing antibiotics, when prescribed by a veterinarian, to sick cattle helps them get better and is the humane thing to do.

Industry in Saskatchewan

Production: 2.5 million cattle (2019)

Number of Producers: 13,500 farms (2019)

Value to Economy: \$2.5 Billion (2017)

Industry in Canada

Production: 1.3 million tonnes annually

Number of Producers: 84,740 on 60,000 farms

Value to Economy: 18 billion annually, generating 228,000 jobs in Canada

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Nutrition

Lean beef is not only delicious, but it also provides lots of high-quality protein for few calories. High-quality protein aids in muscle growth and repair and has all the essential amino acids your body needs. Beef is one of the best sources of iron and the iron it contains is absorbed better than plant sources of iron. Beef also contains 8 vitamins that give you energy and contribute towards a healthy brain.

Beef and the Environment

Cattle are often raised on land that is unsuitable for producing grain or vegetable crops and they eat grasses and other plants that people cannot digest. Grazing animals on this land more than doubles the land area that can be used to produce food in Canada.

Cattle producers care about the environment and the livestock they work with everyday. As stewards of the environment, producers use beneficial management practices (BMP) to help maintain or improve the quality of soil, water, air, and biodiversity resources. Some of these practices include but are not limited to: proper livestock site management (fencing placement to protect environment, run-off control), manure management (proper storage, nutrient planning/recycling – natural fertilizer), and land management (erosion control, stream bank protection, establishing shelterbelts, rotational grazing). Producers that go above and beyond the standard conservation practices are recognized each year by the Canadian Cattlemen's Association with The Environmental Stewardship Award (TESA).

Cattle producers work hard to maintain our soil and water resources for our children and future farmers.

By-Products

Cattle also provide us with many other by-products. Parts of the cow that are used to make products for home, health, food, and industry. They are of considerably less value than the primary product, which is beef.

Different parts of the cattle are used to make different products:

Cattle bones, hooves, blood, and glands – used to make products such as candy, Jell-O, marshmallows, soap, crayons, piano keys, glue, baseballs and gloves, footballs, and soccer balls.

Gelatin – made from cattle bones that are crushed and cooked. Gelatin is used in many products we use each day such as camera film, matches, ice cream, yogurt, marshmallows, and gummy bears.

Cattle hide – made into leather which is used to make clothing, shoes, sporting goods, gloves, and furniture.

Cattle fat – made into fatty acids which are used in the manufacture of many products. Many cosmetics like lipstick and shampoo are made with fatty acids. Tires, paint, and crayons also have fatty acid components made from cattle.

Glossary

BULL—adult male
COW—adult female who
has given birth
HEIFER—young female that
has not yet had a calf
CALF—baby cow
STEER—neutered male

Careers

- Farmer/rancher
- Geneticist
- Herdsman
- Veterinarian
- Research and development
- Breeding technician