

Canada's Beef Cattle Industry

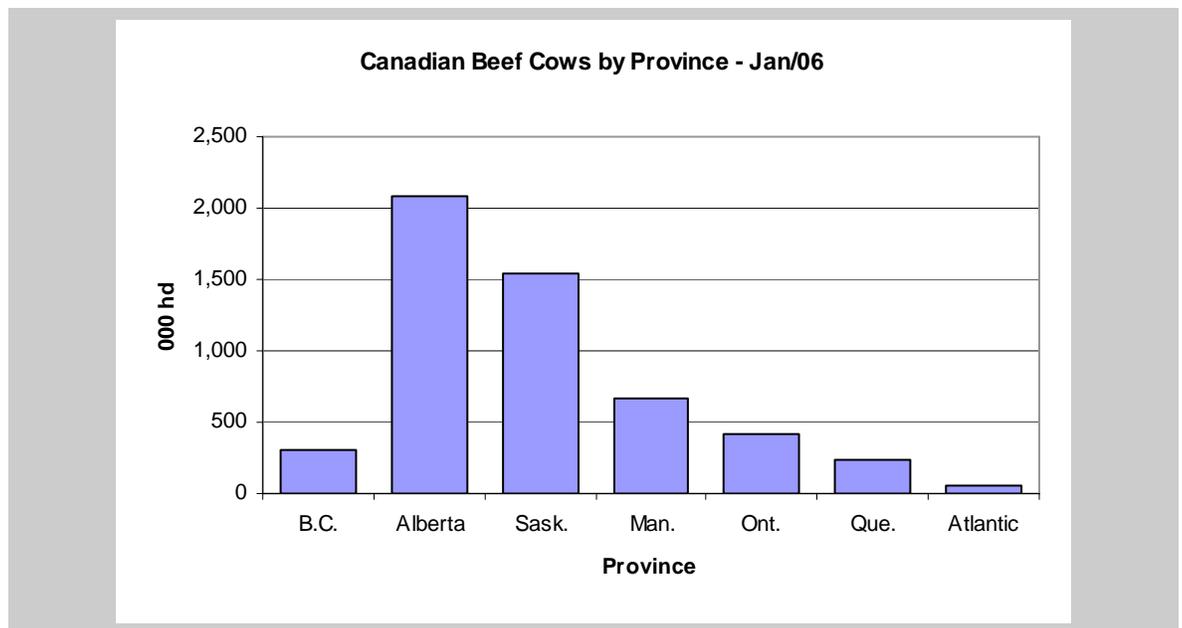
Beef production and the economy

While contributing to a safe and nutritious food supply, beef production in Canada also adds significantly to the national and provincial economies. Canada's beef industry is the largest single commodity source of farm cash receipts. Farm cash receipts from the sale of cattle and calves in 2005 totaled \$6.4 billion or 17% of the total farm cash receipts. This compares to \$5.1 billion in 2004, as is approaching pre BSE levels of \$7.6 billion in 2002.

In addition, beef production also contributes to the processing, retail, food service and transportation sectors. With these other sectors considered, beef production adds about \$25 billion to the Canadian economy in 2005, up from 25% in 2004, and down from \$30 billion in 2002.^{1,2}

Beef production takes place in every province in Canada with a total of 14.8 million head of cattle and calves (Jan. 2006)¹. Accounting for 68% of Canada's fed cattle production, Alberta is the largest beef producing province, followed by Ontario at 21%, and Saskatchewan, Manitoba, and B.C. combined at 9%. Quebec and the Atlantic provinces account for about 2% of total Canadian beef production.^{1,3}

The Canadian beef cow herd of 5.3 million head is concentrated in western Canada, with Alberta having 39% (2.05 million head), Saskatchewan at 29% (1.56 million head), Manitoba at 13% (688,000 head), Ontario at 8% (410,000 head), B.C. at 6% (285,000 head), Quebec at 4% (225,000 head) and Atlantic provinces at 1% (59,000 head).



There are just over 90,000 farms reporting beef cows in Canada. Most beef cow herds (60%) are small to medium sized with less than 122 head⁴. The average beef cow herd size is 53 head.⁴

Total Canadian beef production was 3.5 billion pounds in 2005³, and Canadians consumed an estimated 2.2 billion pounds of beef³.

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Canadian cattle and beef production for export to other countries in 2005 was valued at \$2 billion, down from \$4 billion in 2002³. The largest portion of Canadian beef exports are destined for the United States while other significant markets include Mexico and Asian countries.

From "gate to plate"

There are a number of steps involved in the Canadian beef industry to get beef from "gate to plate" or from the producers to the consumers. The beef industry can be broken down as follows:

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 traits and other desirable traits. Mating takes place in early summer with peak calving taking place the following spring after the end of harsh weather.

On most farms, the entire cow-calf process takes place exclusively outside on open pasture where the cattle graze and calves nurse until they reach a weight of approximately 500 to 600 pounds. At this stage, calves are weaned from their mothers and over-winter outdoors on a forage-based diet. Sometimes this occurs on the cow-calf farm, or it may take place at another specialized farm known as a backgrounding operation.

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. 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.

The Feedlot Operation

The only intensive part of conventional beef production 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 90 per cent grain. The main reason grain is fed to cattle is to produce tender, marbled beef. Cattle will typically spend 60 to 120 days on a feedlot before they are sold to processors.

Industry Programs

Trace-back programs

Developed by the cattle industry in conjunction with the Canadian Food Inspection Agency (CFIA) the Canadian Cattle Identification Program began January 1, 2001. As of that date, beef and dairy cattle were individually identified with an approved ear tag with a number unique to that animal that it will carry through to slaughter and carcass inspection. The tag will allow the CFIA to trace back animals that have moved beyond their 'herd of origin' to ensure that reportable diseases and major food safety defects are contained and eliminated.

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On-Farm Food Safety and Quality programs

To enhance and maintain its reputation for product quality and safety, the Canadian cattle industry developed the Quality Starts Here✓ Verified Beef Production to increase consumer confidence and market access. This on-farm food safety program enables producers to incorporate the principles of Hazard Analysis and Critical Control Point (HACCP) into daily management practices. Its standard operating procedures, education and record keeping components complements food safety efforts beyond the farm-gate. Recognized by government as technically sound, efforts are on-going to build enhanced delivery and auditing systems.

Beef Quality Grading⁶

Once a carcass has met the stringent requirements for health and safety of a Federal or Provincial inspection program, it may be assessed for quality. The Canadian Beef Grading Regulations assess carcasses on quality and yield. This provides an accurate description of a beef carcass to assist both buyers and sellers in the marketplace and provide consumers with consistent product. Carcasses that are graded fall into one of 13 grades based on assessment of carcass maturity, sex, muscling, meat quality, external fat covering and marbling⁴.

The grades are:

- Canada A, Canada AA, Canada AAA, Canada Prime
- Canada B1, Canada B2, Canada B3, Canada B4
- Canada D1, Canada D2, Canada D3, Canada D4
- Canada E

Canada A/AA/AAA/Prime are the highest quality Canadian grades and represented 93 per cent of all Canadian graded beef in 2004.

In addition to quality grading, Canadian carcasses qualifying for Canada A or higher must also be graded for the lean meat content or yield of the carcass. Carcass muscle score and fat score are used to estimate yield.

There are three possible yield grades:

- Carcasses estimated to contain 59 per cent or more lean meat are designated yield classification Canada 1;
- Carcasses estimated to contain between 54 and 58 per cent lean meat are designated yield classification Canada 2;
- Carcasses to contain 53 per cent or less lean meat are designated yield classification Canada 3.

Beef Industry Research

The Beef Cattle Research Council was formed in 1999 by the Canadian Cattlemen's Association to act as its research and development division. The BCRC receives its operating and research funding resources from provincial beef cattle organizations as an allocation through the National Beef Cattle Research, Marketing and Promotion Agency (National Check-off).

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The purpose of the BCRC is to sponsor research and technology development and adoption in support of the vision of the Canadian beef industry to have high quality Canadian beef products recognized as the most outstanding by Canadian and world customers. To achieve this purpose, the BCRC will:

1. Identify, fund and manage beef research and technology development in strategically focused priority areas of national significance as defined by industry stakeholders from all across the market chain and from all parts of Canada.
2. Promote excellence in Canadian beef research and technology development by facilitating the exchange of information and expertise to encourage collaboration, discourage duplication, and to advocate the adoption of high standards.
3. Support and encourage the rapid commercial adoption of new technologies to sustain competitive advantage.

The following priorities are collated with the overall objectives established for the BCRC:

Quality and Safety

1. Food safety assurance throughout the food continuum
2. Tenderness
3. Whole carcass utilization and product development, value-added
4. Competitive advantage for pricing and marketing

Production

1. Animal health
2. Genetic effects on production efficiency and quality
3. Integrated and Total Resource Management
4. Costs of production (reduce and optimize; systems - monitor and control)

Environment

1. Water quality and safety
2. Manure management both as a resource and in balance with environment
3. Greenhouse gases and climate change

The Beef Cattle Research Council is dedicated to ensuring that their process is transparent, provides all stakeholders with the opportunity for input and the outcomes are such that the advancement and growth of the Canadian industry is the highest priority.

References

- ¹ *Canfax, Statistics Canada*
- ² *Economic Impact of Beef and Hog Sector on the Saskatchewan Economy*
University of Saskatchewan, 1991
- ³ *Canfax* <http://www.canfax.ca>
- ⁴ *Statistics Canada, 2001 Census of Agriculture*
- ⁵ *Canadian Cattlemen: Quality Starts Here* ✓ — <http://www.cattle.ca/QSH/>
- ⁶ *Canadian Beef Grading Agency* — www.telusplanet.net/public/cbga/
- ⁷ *Canadian Cattlemen's Association* — <http://cattle.ca/BCRC>