Canadian Commercial Beef

- The Canadian Commercial Beef Industry
- Canadian Commercial Beef Products
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- Utilizing Canadian Commercial Beef

Canadian Beef
Quality that inspires confidence™
The Canadian Commercial Beef Industry

Commercial Beef Processing in Canada

Commercial beef is typically produced using mature animals from the breeding herd. In Canada, slaughter of these cattle has increased over time to levels approximately double those seen in 2003. Commercial beef processing occurs in both eastern and western Canada. This capacity includes dedicated facilities which specialize in this type of production, as well as establishments able to supply beef from both fed and non-fed cattle.

Source: Data provided by Agriculture and Agri-Food Canada, 2007 values are estimated.

Mature Cattle Slaughter in Canada (in thousands)

![Bar chart showing mature cattle slaughter in Canada from 2003 to 2007]

Versatile and Cost Effective

Canadian commercial beef is a versatile and cost effective ingredient which can add significant value to your meat business. Commercial beef is used in a wide variety of applications which include production of ground beef, hamburger patties, sausage, precooked deli meats, heat-and-serve entrees, and a range of whole muscle products. Modern processing methods have created new opportunities for commercial beef utilization at retail and foodservice.

Partner with Us

The Beef Information Centre provides a variety of initiatives to promote the use of Canadian commercial beef. These include Partner Programs to support new product development through cost shared projects. Please visit our website to learn more.

www.canadianbeef.info
Purchaser Preferences in Canada

2008 Processors Survey

A survey* of Canadian meat professionals purchasing beef for processing was conducted by an independent market research firm to determine key factors influencing purchasing decisions.

The Importance of Food Safety

More than 90% of buyers surveyed indicated that beef from establishments with HACCP food safety systems was strongly preferred. A total of 88% reported that beef that had been tested for E. coli O157:H7 before shipment was strongly preferred. Almost all respondents (96%) indicated that beef from Canada was equally as safe or safer than the same type of product imported from offshore.

Canadian Beef Quality

Purchasers of beef for processing also reported that quality related factors significantly influenced their procurement decisions. More than 92% of buyers indicated that specification accuracy was very important to their purchasing decisions. The availability of fresh beef (not just frozen) was preferred by 60% of respondents. In total, 96% rated the quality of Canadian beef as equivalent or better than the same type of product imported from offshore.

Canadian Beef and Customer Satisfaction

Beef from establishments that could offer a consistent supply was strongly preferred by 88% of purchasers surveyed. More than 75% of beef purchasers reported that they preferred beef from Canadian cattle which were slaughtered in Canada. None of the respondents that had previously purchased Canadian beef reported that they were unsatisfied with the product.

* Commissioned research of meat professionals purchasing beef for processing performed by Technomic Inc. in 2008.

A total of 96% of beef professionals surveyed rated the quality and safety of Canadian beef they purchased for processing as equal to or better than the same type of product imported from offshore.
Canadian Commercial Beef

Commercial Beef Products

A wide variety of commercial beef products are available from Canadian processors. Cuts from the complete carcass are shown in this guide. Boneless trim of a specified lean percentage and composition is also available. While the commercial beef supply is impacted by a number of factors, as a general rule the number of cows processed is highest in the late fall and early winter. From an overall perspective, beef cows are the largest component of Canadian cow slaughter, although in the east the proportion of dairy cows may exceed those from the beef herd.

Commercial Beef Grading

The majority of Canadian beef from mature cattle is sold as ungraded product. Cows that are graded are placed into one of the four Canada D grades. The standards for Canada D1, D2, D3, and D4 are shown at right, and consider muscling and maturity, as well as the amount and quality of the fat. D1 cattle are generally considered the most desirable for producing steaks and roasts because of the requirement for firm, white or amber fat along with high standards for carcass muscling. Bulls are placed into the Canada E grade.

Grade Distribution for Mature Cattle in Canada

MATURE CATTLE QUALITY GRADES

<table>
<thead>
<tr>
<th>Grade</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>D4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity (Age)</td>
<td>Mature</td>
<td>Mature</td>
<td>Mature</td>
<td>Mature</td>
</tr>
<tr>
<td>Muscling</td>
<td>Excellent</td>
<td>Medium to excellent</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Fat Colour and Texture</td>
<td>Firm, white or amber</td>
<td>White to yellow</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Fat Measure</td>
<td>&lt; 0.6 in. (15 mm)</td>
<td>&lt; 0.6 in. (15 mm)</td>
<td>&lt; 0.6 in. (15 mm)</td>
<td>0.6 in. (15 mm) or more</td>
</tr>
</tbody>
</table>

Source: Data provided by the Canadian Beef Grading Agency for the 2007 calendar year.

BONE STRUCTURE NOMENCLATURE

Hind Quarter
Front Quarter

1. Hip Bone
2. Shank Bone
3. Femur
4. Patella
5. Calcaneus
6. Tibia
7. Radii
8. Femoral Neck
9. Femoral Head
10. Femoral Condyle
11. Femoral Trochanter
12. Femoral Tuberosity
13. Femoral Epiphysis
14. Femoral Metaphysis
15. Femoral Diaphysis
16. Femoral Shaft
17. Femoral Condyle
18. Femoral Epiphysis
19. Femoral Metaphysis
20. Femoral Diaphysis
21. Hip Bone
22. Femur
23. Patella
24. Tibia
25. Fibula
26. Calcaneus
27. Ankle Joint
28. Hind Leg

Flank/Plate
Brisket/Shank

Canadian Commercial Beef
**THE CANADIAN FOOD SAFETY SYSTEM**

**Canadian Food Inspection Agency**

The Canadian Food Inspection Agency (CFIA) safeguards Canada's food supply by enforcement of food safety and nutritional quality regulations. The CFIA monitors all federally inspected establishments and has the authority for administration and enforcement of Canada's Meat Inspection Act under federal law. The Agency also sets standards for animal health and carries out related enforcement and inspection.

**Food Safety from Gate to Plate**

Canada's food safety system extends from gate to plate. Under the requirements of the National Cattle Identification System, each animal must have an ear tag approved by the Canadian Cattle Identification Agency (CCIA) that is encoded with a unique identification number when the animal leaves its original herd. Canada's mandatory cattle identification system utilizes radio frequency identification (RFID) ear tags and an Internet database to enable rapid and accurate animal identification.

At the processing level multiple food safety interventions are used to control microbiological hazards such as *E. coli* O157:H7. The use of a HACCP (Hazard Analysis and Critical Control Point) food safety system is required for all federally inspected establishments producing commercial beef products.

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**M ICROBIOLOGICAL CONTROLS**

<table>
<thead>
<tr>
<th><strong>Food Safety Systems</strong></th>
<th><strong>Antimicrobial Interventions</strong></th>
<th><strong>Temperature Monitoring</strong></th>
<th><strong>Test and Hold Production</strong></th>
<th><strong>E. coli O157:H7 DNA Testing</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>All HACCP (Hazard Analysis and Critical Control Point) systems for ground beef production are reviewed by the CFIA and must demonstrate specific measures to address <em>E. coli</em> O157:H7.</td>
<td>Canada's meat processors are utilizing a number of antimicrobial treatments designed to inactivate bacteria which may be present on beef. These treatments include pasteurizing the surface of the carcass with steam or hot water and the application of organic acid.</td>
<td>Canada's Meat Inspection Act requires that beef be stored at temperatures of 39°F (or lower). Microbes such as <em>E. coli</em> O157:H7 are adapted for growth in warm-blooded animals and cannot reproduce on meat maintained at refrigeration temperatures.</td>
<td>The development of rapid and increasingly sensitive <em>E. coli O157:H7</em> culture methods have allowed manufacturers to test ingredients for ground beef production. Test and hold systems can significantly reduce the need to recall product.</td>
<td>Health Canada studies the genetic patterns of <em>E. coli</em> O157:H7 obtained from DNA testing performed in federal and provincial laboratories. This electronic network assists scientists and physicians in determining if any reports of <em>E. coli</em> O157:H7-related illness are isolated or potentially part of a larger outbreak.</td>
</tr>
</tbody>
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*CFIA*
The safety of Canadian Commercial Beef is supported by full HACCP food safety systems which are reviewed and audited by the Canadian Food Inspection Agency.
Adding Value to the Ground Beef Category

Source ground beef produced from defined portions of the carcass (such as round, sirloin, and chuck) presents an opportunity to move away from a commodity-oriented approach for the ground meat category. Retail sales of source ground beef continue to grow in Canada.

Research indicates that consumer ratings for overall acceptability (appearance and eating quality) are not significantly different for source grinds produced from youthful vs mature cattle. Accordingly, the use of commercial beef offers a significant opportunity to add value to the ground beef category.

Eating Quality of Steaks and Roasts

Testing by trained sensory panels also shows that the overall acceptability of selected cuts from mature cattle can be quite similar to those from youthful animals. In fact juiciness and flavor desirability of commercial beef can exceed that of product from youthful cattle. Tenderness does decrease with age, but selection of naturally more tender cuts and/or the use of interventions such as mechanical tenderization and moisture enhancement can provide an effective solution. Use of steaks and roasts from Canadian commercial beef can provide an important source of raw material for value-added meat production.

1. Research performed at the Leduc Food Processing Centre in Alberta using a 200 person consumer panel in 2005.
2. Trained sensory panel evaluation performed in 2005 at the Agriculture and Agri-Food Research Station in Lacombe, Alberta.
Canadian Commercial Beef Products

**Hip**

- **Knuckle**
  - Common Names: Sclerus Tip, Thick Flank
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

- **Eye of Round**
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

**Loin**

- **Strip Loin**
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

- **Tenderloin**
  - Common Names: PS/LO
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

**Rib**

- **Rib**
  - Common Names: Sclerus Tip, Thick Flank
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

**Outside Round Gooseneck**

- Common Names: Bottom Round, Bottom Fat
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

**Outside Flat**

- Common Name: Bottom Round, Bottom Fat
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

**Top Sirloin**

- Points: Removal of exterior fat and membrane (denuded)
  - Fat cover
  - Weight range

**Top Sirloin Cap**

- Common Names: Culotte, Rump Cap
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover
  - Weight range

**Bottom Sirloin Flap**

- Common Name: Steer Tail
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover
  - Weight range

**Brisket/Shank**

- **Brisket**
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

- **Shank**
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

**Gambrel Cord**

- Common Names: Achilles Tendon, Cabbage Tendon, Calcium Tendon
  - Points: Removal of exterior fat and membrane (denuded)
  - Fat cover

*Canadian Commercial Beef Products*
Canadian Commercial Beef

**CHUCK**

**Chuck Roll**
- Common Names: Boneless Blade, Bottom Blade
- Points Requiring Specification:
  - Width: distance of cutting line from ventral edge
- Packaging requirements

**Chuck Tender**
- Common Names: Strip Tender, Scotch Tender, Top Blade
- Points Requiring Specification:
  - Removal or retention of connective tissue cover
  - Packaging requirements

**Flank/Plate**

**Short Plate**
- Points Requiring Specification:
  - Removal or retention of rib finger meat (intercostal)
  - Removal or retention of diaphragm
  - Removal or retention of inside skirt
  - Fat cover

**Flank Steak**
- Points Requiring Specification:
  - Removal or retention of serous membrane and/or connective tissue
- Packaging requirements

**Inside Skirt**
- Points Requiring Specification:
  - Hindquarter and/or navel end portion included
  - Removal or retention of membrane
  - Packaging requirements

**Outside Skirt**
- Common Name: Thin Skirt
- Points Requiring Specification:
  - Hindquarter and/or navel end portion included
  - Removal or retention of membrane
  - Packaging requirements

**Boneless Trimmings**

**Boneless Trimmings 95% Lean**
- Prepared from rib primal cuts and/or associated trimming pieces
  - Preparation specification
  - Minmax piece size requirements
- Packaging requirements

**Boneless Trimmings 90% Lean**
- Prepared from rib primal cuts and/or associated trimming pieces
  - Preparation specification
  - Minmax piece size requirements
- Packaging requirements

**Boneless Trimmings 85% Lean**
- Prepared from rib primal cuts and/or associated trimming pieces
  - Preparation specification
  - Minmax piece size requirements
- Packaging requirements

**Boneless Trimmings 65% Lean**
- Prepared from rib primal cuts and/or associated trimming pieces
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**Boneless Trimmings 60% Lean**
- Prepared from rib primal cuts and/or associated trimming pieces
  - Preparation specification
  - Minmax piece size requirements
- Packaging requirements

**Boneless Trimmings 50% Lean**
- Prepared from rib primal cuts and/or associated trimming pieces
  - Preparation specification
  - Minmax piece size requirements
- Packaging requirements

**Source Specific Boneless Trimmings**

**Boneless Round Trimmings**
- Prepared from hip primal cuts and/or associated trimming pieces
  - Hip Group Includes: Inside Round, Outside Round, Eye of Round, Sirloin Tip and Heel of Round
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL* lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements

**Boneless Sirloin Trimmings**
- Prepared from sirloin primal cuts and/or associated trimming pieces
  - Sirloin Group Includes: Sup. Sirloin Butt, Bottom Sirloin Tip and Heel, Bottom Sirloin Butt Tip and Heel, Bottom Sirloin Flap
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL* lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements

**Boneless Rib Trimmings**
- Prepared from rib primal cuts and/or associated trimming pieces
  - Rib Group Includes: Rib, Blade Meat, Rib Finger Meat (intercostal) and Short Rib
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL** lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements

**Boneless Chuck Trimmings**
- Prepared from chuck primal cuts and/or associated trimming pieces
  - Chuck Group Includes: Blade, Clod, Weth, Shoulder, Chuck Rib
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL** lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements

**Boneless Shank Trimmings**
- Prepared from shin and/or associated trimming pieces
  - Shank Group Includes: Front Shank, Hind Shank, Head Muscle (gastrocnemius), Conical Muscle (flexor brachii) and associated muscles from the femur
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL** lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements

**Interpreting the Guide**

**Chuck Roll**
- Common Names: Boneless Blade, Bottom Blade
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**Flank/Plate**

**Short Plate**
- Points Requiring Specification:
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  - Removal or retention of diaphragm
  - Removal or retention of inside skirt
  - Fat cover

**Flank Steak**
- Points Requiring Specification:
  - Removal or retention of serous membrane and/or connective tissue
- Packaging requirements

**Inside Skirt**
- Points Requiring Specification:
  - Hindquarter and/or navel end portion included
  - Removal or retention of membrane
  - Packaging requirements

**Outside Skirt**
- Common Name: Thin Skirt
- Points Requiring Specification:
  - Hindquarter and/or navel end portion included
  - Removal or retention of membrane
  - Packaging requirements

**Hanging Tender**
- Common Name: Thin Skirt, Flank Steak
- Points Requiring Specification:
  - Removal or retention of membrane
  - Packaging requirements

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- Prepared from sirloin primal cuts and/or associated trimming pieces
  - Sirloin Group Includes: Sup. Sirloin Butt, Bottom Sirloin Tip and Heel, Bottom Sirloin Butt Tip and Heel, Bottom Sirloin Flap
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL* lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements

**Boneless Rib Trimmings**
- Prepared from rib primal cuts and/or associated trimming pieces
  - Rib Group Includes: Rib, Blade Meat, Rib Finger Meat (intercostal) and Short Rib
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL** lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements

**Boneless Chuck Trimmings**
- Prepared from chuck primal cuts and/or associated trimming pieces
  - Chuck Group Includes: Blade, Clod, Weth, Shoulder, Chuck Rib
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL** lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements

**Boneless Shank Trimmings**
- Prepared from shin and/or associated trimming pieces
  - Shank Group Includes: Front Shank, Hind Shank, Head Muscle (gastrocnemius), Conical Muscle (flexor brachii) and associated muscles from the femur
  - Points Requiring Specification:
    - Lean point requirement
    - VL or CL** lean point determination
  - Primal cuts to be included
  - Minmax piece size requirements
About Canada's Beef Information Centre  The Beef Information Centre (BIC) is a division of the Canadian Cattlemen’s Association. We are committed to establishing and growing strategic partnerships which maximize the value of Canadian beef for our valued clients. We offer a broad range of services designed to contribute to the continuing success of your beef business.

Find out more about the Canadian Beef Advantage. Contact us:

www.canadianbeef.info