



The Canadian Boxed Beef model was originally developed in 2003/04. Carcass cutout composition is something that transitions over time: cattle change, packers identify opportunities to improve utilization and increase cutout values through alternative primal usage, new cut development, and expansions in market access that results in changes in demand for certain cuts. Consequently the Canadian boxed model and report has been reviewed and modified, where necessary, to ensure cutout values generated accurately reflect current cutout compositions and market realities.

Since the U.S. is Canada's largest competitor in the production of grain-fed beef, being able to compare cutout values is important to evaluating competitiveness and industry performance. It is understood that there will always be a certain degree of differences when comparing Canadian AAA or AA to U.S. Choice or Select prices due to differences in location relative to major markets, the lack of grade equivalency for Canadian beef in the U.S. market, and differences in composition of products. However, these reports have been developed for easy comparison between the two countries.

The Canadian Boxed Beef Report is released weekly with two major sections: (1) individual beef prices (2) boxed cutout and primal values. This report is made possible through the voluntarily price reporting from domestic packers.

(1) INDIVIDUAL BEEF PRICES

Reported prices and volumes meet the following criteria:

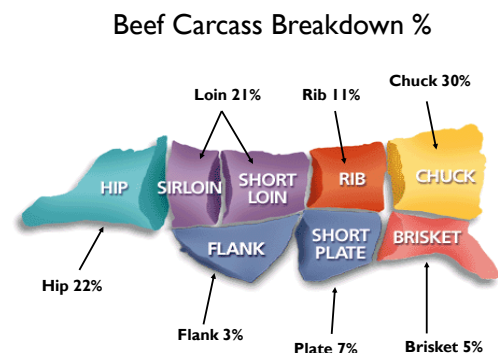
- Sales are negotiated with delivery to the domestic market within 0-21 days.
- Canadian sales only; except "*" indicates all sales, on items including export volumes.
- Prices are quoted in Canadian dollars per pound (lb).
- Beef cut items are from non-dairy bred steer and heifer beef.
- Cut items are no older than 14 days from the date of manufacture and are limited to AAA and AA grades.
- Branded product (Certified Angus Beef, Canada Gold, etc.) are excluded.
- Ground beef and beef trimmings are from both dairy bred and non-dairy bred steer/heifer beef and are no older than 7 days from the time of manufacture.
- Prices are quoted FOB the plant (delivery price minus freight cost).
- Load counts are equal to 40,000 pounds.

(2) BOXED BEEF CUTOUT AND PRIMAL VALUES

The cutout value represents the estimated value of a beef carcass based on prices paid for individual beef items derived from the carcass. Cutout values do not include packer revenues from the sale of **by-products** removed during slaughter. The processing cost incurred by packers is not deducted from the cutout values.

When the beef carcass first enters the fabrication portion of the packing plant it is broken into primal units. These primals then move to cutting tables where they are fabricated into various sub-primals. The cut-out value estimates the value of the carcass using a weighted average from these primals. Each primal can be cut in a variety of ways depending on the cuts desired.

The Boxed Beef model uses average industry cutting yields to calculate each primal. It should be noted that cutouts and primals are based on industry averages which will vary from packer to packer and are continually changing with current market conditions.



Calculating the Boxed Beef Cutout

A weighted average price is used for each individual cut or carcass component using prices and load counts provided by packers on a weekly basis.

Step 1: Determining a Primal Value from a Cut Yield

The potential value of the primal varies depending on what you produce from it. Each cut component makes up a certain percentage of the total primal weight. Therefore each cut components value contributes only that percentage of that cut yields primal value.

The below example shows when B/I Lipon 17 up are cut from the Rib primal along with various other components. Combined these components make up 100% of the rib primal. The same process is followed for all the yields for each primal. It is important to remember shrink which is included in all cutting yields. When meat is cut surface area is exposed allowing moisture loss (shrink). This loss although small does make up a certain percentage of the original primal and represents a non-recoverable loss absorbed by the packer.

Example 1. Rib Primal

| | Yield | * | Price \$/lb | = | |
|-----------------|--------------|----------|--------------------|----------|--------|
| B/I Lipon 17 up | 38.95% | * | 6.90 | = | 2.6876 |
| BN In S/R | 9.82% | * | 5.86 | = | 0.5755 |
| Blademeat | 9.56% | * | 3.19 | = | 0.3046 |
| 50% | 14.82% | * | 1.01 | = | 0.1492 |
| Fat | 13.90% | * | 0.10 | = | 0.0139 |
| Bone | 12.5% | * | 0.03 | = | 0.0038 |
| Shrink | 0.50% | * | 0.00 | = | 0 |
| | 100.00% | | Yield value | | 3.7344 |

The calculated primal value from a specific cut yield is determined by multiplying the price received for a cut by the proportion that cut makes up of the entire primal. For example, the Bone-in Lipon 17 up at \$6.90/lb contributes 38.95% of the primal for a total \$2.69/lb being contributed to the primal value. These individual values are then summed to get the primal value of \$3.73/lb or \$373.44/cwt.

Step 2: Calculating a Comprehensive Primal Value

Once a primal style value has been calculated for each of the major sub-primal cut items produced from that primal, these primal style values are combined into a comprehensive value for the primal. This weights the volumes sold of each style by using the load counts for the major cuts. These load counts are published in the boxed beef report by each individual cut. Providing the primal value of \$3.74/lb or \$373.85/cwt.

Example 2. Comprehensive Rib Primal Value

| | | Load Count | * | Yield Value | = | \$/lb |
|-----------------|-----------------|----------------------------|----------|--------------------|----------|--------------|
| Yield #1 | Oven Ready | (0.04 / 2.75) | * | 4.8189 | = | 0.0701 |
| Yield #2 | B/I Lipon 17 up | (0.01 / 2.75) | * | 3.7344 | = | 0.0136 |
| Yield #3 | B/I Lipon 17 dn | (2.20 / 2.75) | * | 3.7344 | = | 2.9875 |
| Yield #4 | Bls Lipon 14 up | (0.49 / 2.75) | * | 3.6779 | = | 0.6553 |
| Yield #5 | Bls Lipon 14 dn | (0.01 / 2.75) | * | 3.6779 | = | 0.0134 |
| | | Comprehensive Primal Value | | | | 3.7385 |

Step 3: Calculating the Cutout

The comprehensive primal values calculated in Step 2 are then weighted by the percentage or yield factor it makes up in the entire carcass. These products are then summed and the result is a carcass cutout value for a specific grade (either AAA or AA). Providing the cutout value of \$2.59/lb or \$259.00/cwt.

Example 3. Cutout Value

| | Average | * | Yield | = | |
|--------------------|---------------------|---|--------------|---|---------------|
| Primal Chuck | 2.2450 | * | 29.62% | = | 0.6650 |
| Primal Rib | 3.7385 | * | 11.40% | = | 0.4262 |
| Primal Loin | 3.3912 | * | 21.26% | = | 0.7210 |
| Primal Round | 2.2522 | * | 22.32% | = | 0.5027 |
| Primal Brisket | 2.1110 | * | 4.95% | = | 0.1045 |
| Primal Short Plate | 1.3325 | * | 7.10% | = | 0.0946 |
| Primal Flank | 1.8222 | * | 3.35% | = | 0.0640 |
| | | | 100.00% | | |
| | Cutout Value | | | | 2.5903 |

PRIMAL AND CUTOUT YIELDS

| CHUCKS | Yield #1 | Yield #2 | Yield #3 | Yield #4 |
|------------------------|-----------------|-----------------|-----------------|-----------------|
| Quebec Spec | 71.84% | | | |
| Semi-Boneless | | 55.57% | | |
| S/C Shoulder Clod | | | 15.67% | |
| Flat Iron | | | | 4.05% |
| Clod Heart | | | | 6.14% |
| Clod Tender | | | 0.71% | 0.71% |
| 2Pc Bls | | | | |
| Blade Eye 1x1 | | | 19.24% | |
| Chuck Tender | | | 2.74% | 2.74% |
| Blade Eye 0x0 | | | | 15.97% |
| Bone-in Chuck ShortRib | | 2.97% | 2.97% | 2.57% |
| Pectoral Muscel | | 1.99% | 1.99% | 1.99% |
| 50% Trimming | 0.60% | 2.49% | 5.00% | 5.60% |
| 75% Trimming | | 2.36% | 9.83% | 12.55% |
| 81% Trimming | | 0.78% | 3.28% | 4.18% |
| 85% Trimming | 18.87% | 3.19% | 3.21% | 6.19% |
| Ground Chuck | | 7.56% | 5.35% | 6.71% |
| Shankmeat | | 5.38% | 5.38% | 5.50% |
| Fat | 4.74% | 6.00% | 8.97% | 9.41% |
| Bone | 3.75% | 11.41% | 15.24% | 15.24% |
| Shrink | 0.20% | 0.30% | 0.42% | 0.45% |
| Total | 100.00% | 100.00% | 100.00% | 100.00% |

| RIBS | Yield #1 | Yield #2 | Yield #3 | Yield #4 | Yield #5 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Oven Ready Ribs | 54.73% | | | | |
| B/l Lipon 17 up | | 38.95% | | | |
| B/l Lipon 17 dn | | | 38.68% | | |
| Bls Lipon 14 up | | | | 32.19% | |
| Bls Lipon 14 dn | | | | | 32.19% |
| BN In S/R | 9.90% | 9.82% | 9.82% | 9.82% | 9.82% |
| Back Ribs | | | | 6.93% | 6.93% |
| Blademeat | 8.76% | 9.56% | 9.56% | 9.56% | 9.56% |
| 50% Trimming | 9.09% | 14.82% | 14.96% | 15.56% | 15.56% |
| Fat | 5.44% | | 14.03% | | |
| Bone | 11.58% | 13.90% | 12.45% | 13.83% | 13.83% |
| Shrink | 0.50% | 12.45% | 0.50% | 11.56% | 11.56% |
| Total | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

| LOINS | Yield #1 | Yield #2 | Yield #3 | Yield #4 |
|---------------------|-----------------|-----------------|-----------------|-----------------|
| Short Loin 1x0 | 24.87% | 24.87% | | |
| Striploin 1x0 13 dn | | | 14.71% | |
| Striploin 1x0 13 up | | | | 14.71% |
| Top Butt 13 dn | 15.15% | | 15.15% | 15.15% |
| Top Butt 13 up | | 15.15% | | |
| Flapmeat | 4.57% | 4.57% | 4.57% | 4.57% |
| Ball Tips | 3.08% | 3.08% | 3.08% | 3.08% |
| Tri Tip | 4.09% | 4.09% | 4.09% | 4.09% |
| PSMO Tender | | | 7.70% | 7.70% |
| Butt Tender | 3.61% | 3.61% | | |
| Lointail | 1.81% | 1.81% | 1.81% | 1.81% |
| 50% Trimmings | 10.77% | 10.77% | 8.67% | 8.67% |
| 75% Trimmings | 2.78% | 2.78% | 4.11% | 4.11% |
| 81% Trimmings | 0.92% | 0.92% | 1.37% | 1.37% |
| Fat | 22.64% | 22.64% | 23.00% | 23.00% |
| Bone | 5.26% | 5.26% | 11.21% | 11.21% |
| Shrink | 0.46% | 0.46% | 0.53% | 0.53% |
| Total | 100.00% | 100.00% | 100.00% | 100.00% |

| ROUNDS | Yield #1 | Yield #2 | Yield #3 |
|-----------------|-----------------|-----------------|-----------------|
| Boneless Round | 72.42% | | |
| Peeled Knuckle | | 10.93% | 10.93% |
| Inside Round 1" | | 25.99% | |
| Inside Round | | | 25.13% |
| Outside Flat | | 15.95% | 15.95% |
| Eye of Round | | 6.72% | 6.72% |
| Ground Beef | | 5.39% | 5.39% |
| Shankmeat | 6.44% | 6.83% | 6.83% |
| 75% Trimmings | 2.65% | 3.03% | 2.90% |
| 81% Trimmings | | 1.01% | 0.97% |
| Fat | 3.23% | 8.76% | 9.79% |
| Bone | 14.87% | 14.87% | 14.87% |
| Shrink | 0.39% | 0.52% | 0.52% |
| Total | 100.00% | 100.00% | 100.00% |

| SUB-PRIMALS | Brisket | Flank | Short Plate |
|--------------------|----------------|----------------|--------------------|
| Brisket 120 | 63.23% | | |
| Flank | | 15.82% | |
| Inside Skirt | | | 10.56% |
| Outside Skirt | | | 7.04% |
| 50% Trimmings | 9.33% | 26.82% | 34.08% |
| 65% Trimmings | | 2.02% | 17.98% |
| 75% Trimmings | 2.91% | 2.41% | 2.12% |
| 81% Trimmings | 0.97% | 0.80% | 0.70% |
| Blade Meat | | | 3.66% |
| Fat | 10.73% | 51.58% | 7.68% |
| Bone | 12.34% | | 15.47% |
| Shrink | 0.49% | 0.55% | 0.71% |
| Total | 100.00% | 100.00% | 100.00% |

| Canadian Primal to Cutout Yields | | | | | | |
|---|------------|-------------|--------------|----------------|--------------------|--------------|
| Chuck | Rib | Loin | Round | Brisket | Short Plate | Flank |
| 29.62% | 11.40% | 21.26% | 22.32% | 4.95% | 7.10% | 3.35% |