

CANADIAN BEEF QUALITY AUDIT 1998-1999



In 1994, the Canadian beef cattle industry adopted a vision to have Canadian beef recognized as the highest quality in the world. Superb genetics combined with an enviable climate and resource base for the production of cattle make Canada a leader in producing high quality beef. The benefits of further improving beef quality include reducing costs of production and processing losses, and ensuring Canada's competitive edge in domestic and international markets. To raise the quality and safety standard, a number of initiatives are underway across Canada. One of those initiatives is the Canadian Beef Quality Audit (CBQA).

The goal of the CBQA in 1998-1999 was to monitor the occurrence of quality defects in beef and to monitor industry progress since the first CBQA in 1995-96 and subsequent education campaigns. The information from the audit is to be used by industry and producers to identify production management practices and economic drivers for further improvement.

Information was collected during the fall, winter, and spring from five processing plants in Canada, which together process approximately 85% of the beef in Canada. Data were collected from 39,000 carcasses,

representing approximately 1% of the cattle processed annually in Canada. Costs were assigned by packers and strategies were discussed to encourage continuous improvement in Canadian beef.

PROCESSING FLOOR AUDIT

Brands

Brands were observed on 49% of the hides, and 10% of the hides had multiple brands. Ten percent of the brands were located on the shoulder, 48% on the rib and 42% on the hip. The number of brands increased in fed cattle since the last audit in 1995. Branding cost the beef industry \$15.8 million due to hide damage.

Tag

Tag is the mud and manure on the hide of the animal. It causes hide damage and is a concern due to contamination of the carcass during hide removal. Forty-three percent of the hides had tag on them, and the highest occurrence of tag occurred in fed cattle during spring. Tag cost the beef industry \$30.6 million due to hide damage, trim losses, and increased labour costs at the packing plant.

Horns

Seventy percent of the cattle were polled. Full length horns were found on 5% of the cattle. Scurs were found on 14%, stubs on 7%, and tipped horns on 4%. Processors lost \$106,003 from extra labour to remove horns.

Bruises

Fifty-four percent of the carcasses had some type of bruise on them. The majority of the bruises were minor, resulting in minimal trim. Four percent of the bruises were critical, with over 3 lbs of trim. Cows had the most bruising and the most severe bruising. Seventeen percent of bruises were located on the chuck, 36% on the rib, 30% on the loin, and 16% on the round. Bruises resulted in \$4.3 million of loss from trim and devaluation of cuts.

PROCESSING FLOOR AUDIT (CONT'D)

Body Condition Score

The amount of condition on cattle was assessed after hide removal. Six percent of the carcasses were thin (score 1) and 14% were fat (score 5). Thirty-seven percent of the cows were thin, and of these 51% were dairy cows and 33% were beef cows.

Livers

Seventy-two percent of the livers were approved for human consumption, 14% for pet food, and 14% were condemned. Liver abscesses accounted for the majority of condemnations. The amount of severe liver abscesses decreased from the last audit. Economic losses from liver discounts were estimated at \$8.8 million.

Grubs and Surface Injection Site Lesions

Grubs were rarely observed. They were found in the spring in 0.03% of the steer carcasses. Surface injection site lesions in the subcutaneous tissue were observed in 0.2% of the carcasses. This was an improvement from 1995.

Condemnations –

Heads, Tongues, and Whole Carcasses

Five percent of heads were condemned, similar to 1995. Losses were estimated at \$946,161. Five percent of tongues were condemned and 30% were graded 2, resulting in a loss of \$4.2 million.

Overall, 0.3% of the carcasses were condemned. Yearlings (0.1%) were condemned mainly from disease. Cows (1.2%) were condemned from disease (70%), emaciation (22%), and other miscellaneous conditions (8%). Bulls (0.6%) were condemned from disease.

COOLER AUDIT

Hot Carcass Weight

Industry target carcass weights are 600 to 800 lbs. The average weight for steers was 803 lbs; heifers 746 lbs; cows 660 lbs; and bulls 778 lbs. There was considerable variability in carcass weights. In fed cattle, off-weight carcasses resulted in a \$41.01 per head loss or \$111 million.

Ribeye Area and Fat

Ribeye areas were 14 in² in steers and heifers, 12 in² in cows, and 13 in² in bulls. However, there was a large range in ribeye areas, indicating inconsistency. Similarly, there was a large variation in ribeye fat. Top fat measurements were 0.48 inches in steers, 0.56 inches in heifers, 0.44 inches in cows, and 0.40 inches in bulls. Three percent of the carcasses were underfinished (< 4 mm gradefat) and 13 percent of the carcasses were overfinished (≥ 15 mm gradefat).

Yield

The average lean meat yield in steers and heifers was 58.9%; cows 56.6%; and bulls 57.6%. Sixty-one percent of the fed cattle had a yield grade of Canada 1, 28% had a yield grade of Canada 2, and 11% had a yield grade of Canada 3.

Marbling

The percentage of marbling increased in fed cattle since 1995. Only 0.2% of the steers were devoid of marbling, whereas 27% of the steers were AAA and 40% of the heifers were AAA. There were only a few Canada prime in 2% of the heifers and 0.9% of the steers.

Dark Cutters

The rate of dark cutters was 1.2%. One percent of the steers were dark cutters, 0.5% of the heifers, 3% of the cows, and 14% of the bulls. The rate dropped and indicated an improvement since the last beef audit.

Poor Conformation, Stags, and Yellow Fat

Poor conformation was noticed in 0.2% of the steers, 0.3% of the heifers, 86% of the cows, and 0% of the bulls. There were no stags found in the steers. Yellow fat was only observed in mature animals. A small percentage of heifers were mature (0.6%).

TOTAL ECONOMIC LOSSES

Losses on the processing floor were \$27.48 per head or \$91 million; losses in the cooler were \$55.14 per head or \$183 million. Total losses were estimated at \$82.62 per head or \$273.4 million. The economic loss on a per head basis was similar to the losses in the 1995-96 audit, indicating further improvements are needed.