



Sustainable Beef Processing Standard

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Canadian Roundtable for Sustainable Beef
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GLOSSARY OF TERMS

Animal stress: “Stress is a broad term which implies a threat to which the body needs to adjust...Stress is defined as a condition in an animal that results from the action of one or more stressors that may be of either external or internal origin. Coping will vary by animal and each situation/stressor.” (von Borell, 2000, pp. 144).

Co-products: Co-products can be defined as any non-red meat part or product derived from these parts.

Continuous learning: “is regularly and purposefully acquiring ever deeper and broader knowledge and skills and applying them to new behavio[u]rs” (Sessa and London, 2015, Preface). It can be undertaken at the individual, group/team and/or organizational level, and can be acquired in different ways, including mentorship, informal or formal training, and communication (Sessa and London, 2015).

Discrimination: “any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation” (United Nations Human Rights Office of the High Commissioner, 1958).

Ecosystem health: the condition of the ecosystem, including the land, soil and ecosystems.

Entry threshold: an unacceptable practice or outcome that requires improvement to become certified.

Equity: fair, impartial and a lack of discrimination.

Feasible: reasonable, practical and cost-effective.

Food loss and waste: Food, or any substance intended for human consumption, and/or associated parts (e.g. inedible product) removed from the food supply chain that is avoidable (Food Loss and Waste Protocol, 2017).

Healthy: reasonable steps are taken to reduce the risk of illness.

Indicator: a measureable variable.

Measure: a direct or proxy metric of the desired outcome of an indicator.

Outcome-based: a desired output or end state.

Primary processor: a facility where live cattle are slaughtered and processed for human consumption.

Quality of beef and co-products: Customer (e.g. buyers including retail and food service companies) requirements for beef and other co-products are consistently met.

Responsibly managed: managed in a way that seeks to balance social, economic and environmental components of the resource and system.

Safe: reasonable steps are taken to reduce the risk of injury to workers.

Sustainable beef: a socially responsible, economically viable and environmental sound product that prioritizes planet, people, animals and progress.

INTRODUCTION

Background

The Canadian Roundtable for Sustainable Beef (CRSB) is a multi-stakeholder organization focused on advancing sustainability efforts within the Canadian beef industry. The CRSB is a member of the Global Roundtable for Sustainable Beef (GRSB), a similar multi-stakeholder initiative focused on the sustainability of the global beef value chain. The CRSB's work aligns the GRSB's high-level efforts with relevancy to the Canadian context.

Vision: the Canadian beef industry is recognized globally to be economically viable, environmentally sound and socially responsible.

Mission: to facilitate the framework for the Canadian Beef industry to be a global leader in the continuous improvement and sustainability of the beef value chain through science, multi-stakeholder engagement, communication and collaboration.

Objective of the CRSB Sustainable Beef Processing Standard

The purpose of this document is to identify the outcome-based indicators, goals and requirements for the assessment and audit of beef processors in the context of sustainability. It is also used by CRSB-approved Certification Bodies and auditors when carrying out certification audits, and by interested stakeholders to better understand the contents of the Standard. The CRSB will develop interpretation guidance and implementation support materials as required.

Underpinning the indicators is the triple-bottom-line approach that balances environmental, social, and economic considerations, and the expectation that participants in the sustainable beef value chain respect all laws that govern their activities. The indicators are built on the assumption that participants are complying with all applicable laws and regulations; they are not intended to verify legal compliance or to endorse any activity as meeting any legal requirement that may apply to an individual operation. Participants are responsible for ensuring they are compliant with all applicable laws and regulations; if a participant is found by the applicable regulator to be in contravention of any laws or regulations, the participant's status in the program will be reviewed and may result in suspension or removal from the program. A self-declaration on compliance with applicable laws or regulations will be required by the beef processor prior to an audit.

Scope

The Sustainable Beef Processing Standard is aimed at all primary processors in Canada; these are the operations currently in scope for a voluntary certification to the Standard.

The CRSB's Indicator Committee (see Acknowledgments) developed the Standard through a multi-stakeholder, collaborative approach, which included two rounds of public consultation, that align with the five GRSB principles (Figure 1):

Natural Resources: the beef value chain manages natural resources responsibly and enhances ecosystem health.

People and the Community: sustainable beef stakeholders protect and respect human rights, and recognize the critical roles that all participants within the beef value chain play in their community regarding culture, heritage, employment, land rights and health.

Animal Health and Welfare: sustainable beef producers and processors respect and manage animals to ensure their health and welfare.

Food: sustainable beef stakeholders ensure the safety and quality of beef products and utilize information-sharing systems that promote beef sustainability.

Efficiency and Innovation: sustainable beef stakeholders encourage innovation, optimise production, reduce waste and add to economic viability.



Figure 1: The Five Principles of Beef Sustainability

The Standard is written to be outcome-based; measureable; based on science and expert opinion; and address key concerns around the sustainability of beef processing in Canada.

The CRSB Certified Sustainable Beef Framework

CRSB Sustainable Beef Production Standard: contains the indicators, goal(s) and requirements for the assessment, audit and certification of beef producers in the context of sustainability.

CRSB Sustainable Beef Processing Standard: contains the indicators, goal(s) and the requirements for the assessment, audit and certification of beef processing facilities in the context of sustainability.

CRSB Chain of Custody Requirements: contains the technical and administrative requirements for tracking beef and claims about beef sourced from CRSB certified operations.

CRSB Assurance Protocols: provides a detailed overview of the certification process.

CRSB Requirements for Certification Bodies: contains guidance for Certification Bodies that are seeking approval to conduct certification services on behalf of the CRSB.

Certification Requirements for Beef Processors

All the requirements in the Achievement level are highlighted in yellow in this document and must be met in order to achieve certification to the Standard. Innovation and Excellence levels are also included in the Standard to support continuous improvement in the Canadian beef industry (i.e. achievement of these levels is not required for certification). All the requirements in the Innovation level (in addition to all those requirements in the Achievement level) must be met in order to achieve Innovation. Similarly, all the requirements in the Excellence level (in addition to all those requirements in Achievement and Innovation) must be met in order to achieve Excellence.

An Entry Threshold is included for some of the indicators in the Standard; these reflect unacceptable practices or outcomes that require improvement to achieve certification.

Some requirements in the Standard are for information collection purposes only and do not influence audit results. When content in the Standard is not assessed in the audit, this is indicated in a footnote.

The audit will be conducted based on the frequency defined in the Assurance Protocol and must be performed by a CRSB-approved Certification Body.

1.0 CRSB SUSTAINABLE BEEF PROCESSING STANDARD

The CRSB Standard is detailed below. Each of the five principles of sustainable beef (i.e. natural resources, people and the community, animal health and welfare, food, and efficiency and innovation) contains indicators, goal(s) and requirements for certification. The indicators are identified in **blue** font; the goal(s) are identified in **green** font; and the requirements for certification are highlighted in **yellow** in the Achievement level.

Natural Resources

Beef processors are responsible for managing a broad suite of natural resources. These operations require good quality water in adequate quantities to run their operations in a way that maintains the safety of beef products; wastewater needs to be of appropriate quality to reduce impacts to ecosystems and watersheds; and finally, emissions from these operations contribute to climate change and influence air quality. This section of the Standard focuses on these key areas.

NATURAL RESOURCES

Water resources are responsibly managed.

Goal:	Incoming and outgoing water shall be managed in both its quantity and quality. Water shall be used responsibly and recycled where possible.		
Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
Discharge of untreated effluent or unacceptable chemicals in water bodies.	Operation shall manage water in a manner that maintains water quality and optimizes water use efficiency.	Water use is calculated or otherwise measured (e.g. gallons per head, litres per kilogram of beef).	Operation has a documented water management plan that is reviewed at least annually and water use improvements are tracked over time.

NATURAL RESOURCES

Air emissions (e.g. greenhouse gases, air quality) are responsibly managed.

Goal: Efforts shall be made to reduce the operation’s carbon footprint; air pollution shall be responsibly managed.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
Lack of awareness of the operation’s impact on air quality or carbon footprint.	<p>Operation shall take actions to reduce greenhouse gas emissions and manage air quality.</p> <p>Operation shall have a process in place to receive and mediate odour-related complaints.</p>	Carbon footprint (e.g. carbon dioxide equivalents – CO ₂ e) is calculated.	Air quality and greenhouse gas emissions are documented and improvements tracked over time.

NATURAL RESOURCES

Land resources and ecosystem health are maintained or enhanced.

Goal: Efforts shall be made to reduce negative environmental impacts to, and minimize contamination and pollution of, land, soil and ecosystems.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
No emergency/disaster management plan that addresses spills and hazardous materials.	Operation shall have an emergency response or disaster management plan that addresses chemical spills and hazardous materials. The plan includes worker training.	<p>The number and magnitude of chemical spills as well as mitigation efforts are documented.</p> <p>The operation has policies to mitigate land impacts and protect biodiversity (e.g. for new facility developments), where applicable.</p>	Operation has a documented emergency response or disaster management plan that addresses chemical spills and hazardous materials. Plan is reviewed at least annually and the review is documented.

People and the Community

The processing sector plays an important role in the Canadian economy and in the lives of people and the communities in which they operate. The National Beef Sustainability Assessment (NBSA) found that for every worker employed in the packing and processing sector, another 4.2 workers are employed in Canada (including direct and indirect impacts). Challenges for packers include labour as their capacity to add value to products and maximize utilization rates is reduced (Canadian Roundtable for Sustainable Beef, 2016). From a social perspective, the NBSA showed that social risks are low overall (e.g. working conditions, temporary foreign workers, health and safety, animal welfare). Despite these positive results, the CRSB is committed to continuous improvement and therefore identified health and safety, equity and respect, career development, and community involvement as the core focus areas for the People and the Community principle.

PEOPLE AND THE COMMUNITY

A healthy and safe work environment is provided.

Goal: Steps shall be taken to reduce the risk of injury and illness to workers.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
No health and safety program.	<p>Operation shall identify the risks to health and safety for its business and workers, and shall have protocols in place to mitigate these risks.</p> <p>Operation shall monitor health and safety and adjusts as necessary to provide safe working conditions.</p> <p>Workers shall be trained and follow health and safety protocols.</p>	Reportable Frequency or Incident Rate, or other injury/fatality-related measure, is calculated.	Operation has a documented health and safety plan that is reviewed at least annually.

PEOPLE AND THE COMMUNITY

All workers are treated with equity and respect.

Goal: Workers shall be treated fairly and impartially.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
No process to document/validate and address complaints of discrimination.	There shall be an absence of discrimination in the workplace (e.g. impartiality in the interview process and employee management; workers are free to express concerns about their treatment without repercussions).	Operation has a code of ethics, code of conduct or non-discrimination policy that is implemented by management and understood by workers. Worker complaints are logged and resolved in a timely manner.	Operation has a documented code of ethics, code of conduct or non-discrimination policy that is reviewed at least annually.

PEOPLE AND THE COMMUNITY

Operation is involved in its community (community is defined by each individual).¹

Goal:	To recognize beef processors for their contributions to their community. Community is defined by each individual operation.
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¹This indicator is binary (assessed as 'yes' or 'not applicable'). It is for information collection purposes only; it will not be scored in the audit.

PEOPLE AND THE COMMUNITY

Career development opportunities are provided.

Goal:	Workers shall be given training and other career-related opportunities to develop their skills and expertise.		
Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
	Workers shall be trained and competent to complete their assigned tasks.	Employee performance reviews (whether formally or informally) are conducted at least on a yearly basis.	Mentorship or learning opportunities (e.g. career development program) are provided to all workers who wish to participate. Participation is tracked and documented.

Animal Health and Welfare

Respect for, and management of, animals that contributes to their health and welfare underpins the Standard requirements within this principle. The intent of the indicators is to minimize animal pain, distress and suffering, and maintain animal health and welfare. The following themes were identified as being critical from a sustainability perspective and have been incorporated into the Standard: regular monitoring of cattle; the provision of feed and water when necessary; minimizing animal pain and distress; reduction of animal pain and distress during animal handling, movement through facilities and when being transported, loaded or unloaded; and finally, prompt identification and management of compromised and sick animals.

ANIMAL HEALTH AND WELFARE

Cattle are regularly monitored and have sufficient quantity and quality of water and feed, when required, to meet their physical needs.

Goal: Cattle shall be checked regularly for health and welfare, and provided with feed and water when required.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
<p>Cattle are not monitored and may be in distress or not able to access feed/water.</p> <p>Cattle are not provided water and/or feed when required in emergency or unusual conditions (e.g. hot weather, when held for longer-than-normal periods of time).</p>	<p>Operation shall undertake regular monitoring of live cattle so basic needs are met.</p> <p>Operation shall have a plan to address cattle needs while waiting for slaughter (e.g. workers know what to do when cattle are in distress; when feed and water is required; and what to do if power goes out/access to feed and water is cut off).</p>	<p>Some review and documentation on cattle monitoring and/or actions taken to address animal comfort prior to slaughter.</p>	<p>Documented monitoring includes emergency response plan, and animal monitoring/correction plan, which are reviewed at least annually.</p>

ANIMAL HEALTH AND WELFARE

Operation takes actions to minimize animal pain and distress.

Goal: The operation shall minimize pain and distress to animals pre-slaughter and during the slaughter process. This includes the facilities; holding pens with adequate ventilation and space; handling; loading, transport and unloading when it is under the control of the processor; and slaughter.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
<p>Inappropriate transport or off-loading procedures that cause unnecessary pain or distress to animals and there is no plan for improvement.</p> <p>Consistent animal pain and distress from a source and there is no plan for improvement.</p> <p>Use of electric prods on sensitive parts of the animal, when cattle have nowhere to move, or to non-ambulatory or disabled cattle.</p> <p>Willful acts of abuse are not remedied.</p>	<p>Operation shall undertake humane animal handling that includes safe loading and unloading conditions, transport, consideration for extreme weather, and understanding of unacceptable procedures. Actions shall be monitored and adjusted when necessary.</p> <p>Electric prods shall be used sparingly as last resort and people understand how to deal with difficult, injured or compromised cattle.</p> <p>Optimize the welfare of animals during pre-slaughter and slaughter processes, until they are dead, in accordance with applicable provincial and/or federal regulations. Workers shall understand what to check for and how to remedy</p>	<p>Workers who handle live cattle are trained on low stress animal handling techniques. Training is monitored and re-training provided when necessary.</p> <p>A documented policy exists and is followed regarding willful acts of abuse.</p>	<p>Operation has a documented protocol to minimize animal pain and distress associated with the movement of live cattle through the facility; transport; handling prior to slaughter; and during slaughter. Protocol is reviewed at least annually and changes made when necessary.</p>

Operation takes actions to minimize animal pain and distress.

Goal: The operation shall minimize pain and distress to animals pre-slaughter and during the slaughter process. This includes the facilities; holding pens with adequate ventilation and space; handling; loading, transport and unloading when it is under the control of the processor; and slaughter.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
	inadvertent errors. Facilities shall have adequate lighting and ventilation, are in good repair and monitored to prevent injuries, bruising and falls. Efforts shall be made to minimize processing wait times.		

ANIMAL HEALTH AND WELFARE

Compromised and sick animals are managed appropriately.

Goal: Compromised and sick animals shall be identified in a timely manner, and a course of action shall be taken that is appropriate to the situation and reduces animal pain and distress.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
Compromised and/or sick animals are not promptly identified and/or not treated humanely. There is no plan for improvement.	Operation shall address cattle that are injured, sick or otherwise compromised in an expedient manner. These animals shall be promptly identified and treated or euthanized. Euthanization shall be done with appropriate equipment and competent, trained personnel in an acceptable manner.	Non-ambulatory policy exists. Workers follow a formal policy to promptly manage compromised or sick cattle. Training documentation exists.	The policy for compromised and injured/sick animals is documented, and reviewed at least annually.

Food

Food safety is of utmost importance for the Canadian beef industry, the public and consumers alike. A food safety program is imperative to identifying risks and mitigating these risks—one of the indicators included in this principle. Although a requirement for all federally inspected processing plants, a Hazard Analysis and Critical Control Points approach to food safety is strongly recommended by the CRSB for all operations seeking certification (Canadian Food Inspection Agency, 2012).

Beef processors have customer requirements and specifications; it is important for the processor to meet their customers' specifications for their overall sustainability, particularly in the economic context. The Standard incorporates consistently meeting customer specifications with the goal of reducing the number of rejections.

Approximately one-third of all food produced for human consumption in the world is lost or wasted each year. Each stage of the value chain has a responsibility to help reduce food waste and loss. There are a number of different approaches to assessing food waste and loss; however, the Provision Coalition has identified the following root causes of food waste at the processing and packer level broadly across the entire food supply chain (i.e. incoming quality; process losses; cold chain deficiencies; employee behaviour; poor machine set up; inaccurate forecasting; contamination; trimming & culling; supply/ demand issues; date codes; customer rejections; inconsistency in quality of ingredients; and food safety issues) (Provisions Coalition, 2014). The Provision Coalition suggests that developing strategies aimed at reducing food waste first, followed by redistribution, recycling and effective disposal would help reduce food waste. The CRSB has included food waste and loss reduction in the Standard.

FOOD

A food safety program is followed.	
Goal:	Operation shall meet federal or provincial standards and takes all reasonable actions to support food safety.
No (Score: 0)	Achievement (Score: 1)
Entry Threshold.	Operation must have a valid license to operate, including a documented food safety program.

FOOD

Responsible efforts are made to ensure the quality of beef and co-products to customers further down the supply chain.

Goal: Quality beef and co-products shall be provided to customers in the supply chain and rejected product that does not meet customer specifications minimized.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
There are no efforts made to address customer complaints.	Customer specifications shall be known. There shall be a process in place to receive and resolve customer complaints.	Customer complaints are logged and resolved in a timely manner.	The number of rejections from customers in the supply chain is tracked and remains the same or is reduced over time.

FOOD

Efforts are made to reduce food waste.

Goal: The operation shall make efforts to reduce food waste and loss that can be avoided, and recognize that the optimal use of products is for human consumption first (1. reduce; 2. divert - prevent, redistribute and recycle; and 3. dispose).

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
Operation does not seek to reduce landfill waste and has no plan for improvement.	Operation shall identify food waste and loss in their business and implement practices to reduce landfill waste.	Operation has conducted a food waste and loss assessment, optimization assessment, or similar.	Operation tracks food waste and loss over time.

Efficiency and Innovation

The indicators, goals and requirements in the Efficiency and Innovation principle is to encourage innovation, optimize production, reduce waste and add to economic viability. The CRSB has focused on reducing, re-using and recycling; energy use; efficiency and productivity; and learning and collaboration to support continuous improvement.

EFFICIENCY AND INNOVATION

Operation reduces, reuses and recycles.

Goal: Operation shall reduce, reuse and recycle wherever feasible.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
Operation does not make efforts to reduce, reuse and recycle, and has no plan for improvement.	Operation shall take actions to reduce, reuse and recycle non-food materials (e.g. packaging) used in the facility.	Operation has a program in place to reduce, reuse and recycle non-food (e.g. packaging) materials.	Operation has a documented program to reduce, reuse and recycle, and can show evidence that it is diverting materials (non-food) from the landfill.

EFFICIENCY AND INNOVATION

Energy is used efficiently and innovative options are considered.

Goal: Energy shall be used as efficiently as possible and options for enhancing energy use efficiency shall be considered.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
No practices for energy use efficiency have been considered.	Practices shall be implemented to increase energy use efficiency.	Energy use is calculated (e.g. kilowatt hour per kilogram of beef produced).	Innovative options to increase energy use efficiency are considered, and where not cost prohibitive, are utilized. Energy use is tracked over time.

EFFICIENCY AND INNOVATION

Innovation and technology are used in a responsible manner².

Goal:	New technologies and innovations are explored and utilized to continuously improve the sustainability of the product (e.g. food safety, efficiency, productivity).
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² This indicator is binary (assessed as 'yes' or 'not applicable'). It is for information collection purposes only; it will not be scored in the audit.

EFFICIENCY AND INNOVATION

Continuous learning and collaboration in the beef industry is pursued.

Goal: Continuous learning about sustainability shall be undertaken and efforts made to collaborate with other stakeholders in the supply chain.

Entry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
	Within the last 5 years, operation has proof of learning in one of the five principles of sustainable beef (natural resources, people and the community, animal health and welfare, food, and efficiency and innovation).	Within the last 5 years, operation has proof of learning in three of the five principles of sustainable beef (natural resources, people and the community, animal health and welfare, food, and efficiency and innovation).	Within the last 5 years, operation has proof of learning in all five principles of sustainable beef (natural resources, people and the community, animal health and welfare, food, and efficiency and innovation).

CHALLENGES TO IMPLEMENTATION

The CRSB recognizes that there may be challenges associated with implementing the Standard. Some of these challenges broadly include:

- i. Increased costs and time;
- ii. Balancing efficiency and quality (e.g. increasing water use efficiency while maintaining food safety);
- iii. Balancing employment, labour risks and automation of processes at the plant (e.g. leads to loss of jobs, reduced community linkages);
- iv. Driving improvement while at the same time maintaining economic sustainability (e.g. having expectations that are not feasible);
- v. Shortage of labour and trained personnel;
- vi. Trade-offs between implementation of some indicators and economic sustainability; and
- vii. Potential conflicts between implementation of indicators.

The CRSB is working to address some of these challenges through its three pillars of work.

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