

SUSTAINABLE BEEF PRODUCTION STANDARD



Responsibility for this Document

The Canadian Roundtable for Sustainable Beef (CRSB) is responsible for the Standards. The CRSB reserves the right to update this document at its sole discretion at any time for continued relevance and effectiveness. At a minimum, it is reviewed every five-years in conjunction with the regular management review of the Framework and updated as needed.

Readers should verify that they are using the most current version of this and other documents. Definitive versions can be found on the CRSB website at crsbcertified.ca.

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Versions Published

Version Number	Publication Date	Description
1.0	December 7, 2017	First published final version
1.1	August 18, 2020	Updated objective and scope
2.0	December 21, 2023	Five-year review and update

Validity and Transition

The CRSB Sustainable Beef Production Standard version 2.0 will come into effect from December 21, 2023, and replaces all previous versions.

The transition period is one year. By the end of the transition period, all certificate holders shall have been evaluated against this standard version.

Translation Disclaimer

The official language of this Standard is English. For any question related to the precise meaning of the information between copies, versions or translations, please refer to the official English version for clarification.

Any discrepancies or differences in meaning due to translation are not binding and have no effect for auditing or certification purposes.

More Information

For more information about the Canadian Roundtable for Sustainable Beef visit the website <u>crsb.ca</u>.

For more information about the CRSB Certified Sustainable Beef Framework visit the website crsbcertified.ca.

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Introduction

The Canadian Roundtable for Sustainable Beef (CRSB) is a collaborative multi-stakeholder organization focused on advancing sustainability in the Canadian beef value chain. It provides a national forum dedicated to connecting a network of leaders and stakeholders committed to beef sustainability.

Vision: that the Canadian beef value chain is a global leader in environmental, social and economic sustainability and part of a trusted and thriving food system.

Mission: advance, measure and communicate continuous improvement in sustainability of the Canadian beef value chain.

The CRSB is a member of and is aligned with the principles and criteria established by the Global Roundtable for Sustainable Beef (GRSB). The five guiding principles of beef sustainability (i.e. natural resources, people and the community, animal health and welfare, food, and efficiency and innovation), as defined by the GRSB, establish the foundation for the CRSB and its members.

From these guiding principles, the CRSB has defined sustainable beef as a socially responsible, economically viable and environmentally sound product that prioritizes the planet, people, animals and progress.

CRSB Certified Sustainable Beef Framework

The *Certified Sustainable Beef Framework* (the Framework) is a voluntary, operation-level, third-party audited certification program for the beef supply chain to demonstrate responsible practices.

The four key components of the Framework are:

- 1. The outcome-based Sustainable Beef Production Standard and Sustainable Beef Processing Standard,
- 2. Assurance Protocols providing guidance and requirements for the certification process,
- 3. Chain of Custody Requirements outlining the technical and administrative requirements for tracking cattle, beef and claims about beef sourced through Certified Operations, and
- 4. Sustainability claims that providing guidance on how to communicate about the Framework.



Sustainable Beef Production Standard

This Sustainable Beef Production Standard identifies the indicators, goal(s) and requirements for the assessment, audit and certification beef producers must meet to claim their cattle and beef are sustainably managed and sourced. Developed through a collaborative, multi-stakeholder approach the Standard is written to be outcome-based, measurable, based on science and expert option, and address key concerns around the sustainability of beef production in Canada. The CRSB maintains guidance and implementation support in separate documents.

Initially written by the CRSB Indicator Committee, the CRSB Certified Sustainable Beef Framework Committee is currently responsible for the ongoing review, revision and interpretation of the Standard.

Eligible Operations

The Sustainable Beef Production Standard is aimed at all cow-calf, backgrounding, feedlot and dairy beef operations in Canada; these are the operations currently in scope for voluntary certification to the Production Standard.

Certification of auction marts and land for feed production are currently out of scope; however, will be revisited in future revisions of the Standard. The Canadian Roundtable for Sustainable Crops is setting parameters around sustainable feed, and the CRSB is working closely with them to facilitate alignment.

Laws and Regulations

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 that 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. The CRSB and Certification Bodies may only consider contravention of laws or regulations which fall strictly within the scope of the Standard. The CRSB and Certification Bodies will not take any action or assess any complaints or appeals related to legal non-compliance until a decision has been made by an applicable regulator or authority. This includes, where relevant, instituting any trigger audits or other actions taken in support of the complaint or appeal. Even if a regulatory authority makes such a final decision, the CRSB reserves the right to take no action if it deems necessary.

Prior to an audit, a self-declaration on compliance with applicable laws or regulations will be required from the beef producer.

The Production Standard also refers to a number of internal policies and procedures which Certified Operations are expected to maintain. It is beyond the scope of the Standard and the authority of the CRSB and its Certification Bodies to assess the legal or regulatory implications of such policies and procedures.

Certification Requirements for Beef Producers

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) contain indicators, goal(s) and requirements for certification.

Indicators include a three-level scoring system: Achievement, Innovation and Excellence levels. Certification requires operations meet, at a minimum, all of the requirements of the Achievement Level on every indicator. Innovation and Excellence levels are included to encourage continuous improvement over time but are not required to be met for certification. An Entry Threshold is included for some indicators, which reflects unacceptable practices or outcomes that require improvement before certification can be achieved.

Some requirements in the Standard apply only to specific segments of beef production (e.g. feedlots) or types of operations (e.g. those who use crop input products). There are also some inclusions in the Standard that are for information collection purposes only and do not influence audit results. When a requirement in the Standard is applicable to just one segment, type of operation or is not assessed in the audit this is indicated by a note on the indicator.

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

Indicators, Goals and Requirements

The Sustainable Beef Product Standard requirements are built on the CRSB's five principles of beef sustainability – natural resources, people and the community, animal health and welfare, food, and efficiency and innovation – underpinned by the need for economic viability and resiliency across the beef supply chain.

The Standard uses an outcome-based approach, meaning that practices used to meet the individual indicators in the Standard are what is measured, without prescribing specific ways to achieve them. The outcome-based model allows for the diverse ways beef producers demonstrate sustainable practices based on their individual operation, region, climate, soil type, production style and more.

Economic Viability

Farming and ranching are both a way of life and a business. Privacy and confidentiality concerns prevent the inclusion of financial management indicators in the Standard against which individual operations are assessed and audited, but integrated planning and management is essential for a sustainable operation to achieve certification. Therefore, the Standard assumes that economic viability influences behaviour, decision making and the potential for adoption of production practices across each of the five principles of sustainability. A CRSB Certified Operation is an economically viable operation on a journey of continuous improvement.

Natural Resources

Intent: Responsibly managed natural resources to maintain and enhance ecosystem health.

All aspects of agriculture and agri-food production are dependent on the use and management of, or interaction with, natural resources. As climate change and environmental sustainability become increasingly prominent topics amongst governments, industries and the public, beef production is being discussed as both a contributor to and part of the solutions.

In particular, beef production's contribution to the carbon balance is often highlighted in such discussions as both an emitter of greenhouse gases (e.g. cows emit methane) and as a carbon sink and storage (e.g. the vast grasslands upon which production occurs sequesters carbon). There is currently no practical tool available for individual producers to measure on-farm carbon balance, so the indicator addressing carbon emissions and sequestration is written to support individual operations identifying the areas of their operation that affect carbon sequestration and impact potential emissions (e.g. grassland health, production and feed efficiencies).

As evident from the carbon example, measurement of some of the complex natural processes on-farm is often not scientifically or technologically possible, or economically feasible for individual producers. The requirements for this principle are designed for the assessment of individual operations and reflect what is within the control of the operators, although it is recognized that an operation is both part of and connected to other systems. For example, an operation has limited ability to improve river or stream water quality on their operation if the water quality upstream is poor. The operation will thus only be assessed based on what is within its control.

The complexities of ecological services on multifaceted landscapes mean management for those services is also complex, particularly on native grasslands. For example, wildlife enhancements need to be region and even site specific. It is much simpler to enhance tame grassland for common wildlife species that exist in association with human development than it is to enhance habitat for species at risk on native prairie. The requirements are outcome-based to account for these types of situations.



NR 1		Riparian areas, wetlands, surface and ground water sources and nutrient runoff are responsibly managed to help maintain or enhance watershed health.					
Goal:	Watershed heal	th shall be maintained or enhanced, and deg	radation of water quality shall be minimize	zed.			
Er	ntry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)			
		Riparian areas and wetlands shall be monitored and managed. Potential sources of contamination to water bodies shall be identified and mitigated. Valid Confined Feeding Operation permit in applicable jurisdictions (e.g. feedlots).	A grazing management plan that minimizes negative impacts to water quality is implemented when cattle are on pasture. A nutrient management plan that minimizes negative impacts to water quality is implemented when cattle are fed intensively.	A grazing management plan that minimizes negative impacts to water quality when cattle are on pasture is implemented, documented, reviewed annually and updated as needed to demonstrate that progress has been made towards maintaining or enhancing watershed health and minimizing degradation of water quality. A nutrient management plan that minimizes negative impacts to water quality when cattle are fed intensively is implemented, documented, reviewed annually and updated as needed to demonstrate that progress has been made towards maintaining or enhancing watershed health and minimizing degradation of water quality.			

NR 2	Soil health is ma	intained or enhanced.						
Goal:	Soils shall suppo	Soils shall support plant growth without becoming degraded.						
	ry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)				
		Problem areas shall be identified, and soil erosion, compaction and degradation shall be monitored and managed.	A grazing management plan that includes soil health considerations is implemented when cattle are on pasture. A nutrient management plan that includes soil health considerations is implemented when cattle are fed intensively.	A grazing management plan that includes soil health considerations when cattle are on pasture is implemented, documented, reviewed annually and updated as needed to demonstrate that progress has been made towards maintaining or enhancing soil health. A nutrient management plan that includes soil health considerations when cattle are fed intensively is implemented, documented, reviewed annually and updated as needed, that includes soil testing, with nutrient application rates based on testing results and crop needs, to demonstrate that progress has been made towards maintaining or enhancing soil health.				

NR 3	Practices that su	Practices that support carbon sequestration and minimize emissions are understood and/or employed.					
Goal:		To raise awareness about current and evolving production practices and methods of measurement that support carbon sequestration and minimize emissions in the Canadian beef industry.					
	ry Threshold Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)			
		Operation identifies the areas of the operation that affect carbon sequestration and impact potential emissions.	Practices that support carbon sequestration and/or minimize emissions are adopted.	Operation measures the success of practices that are supporting carbon sequestration or minimizing emissions.			

NR 4	Air quality for people and animals is responsibly managed.*				
Goal:	Odour and dust, whe	ere applicable, shall be managed for peop	le and animals.		
_	Threshold ore: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)	
		Indoor air quality and ventilation in barns shall be maintained. Operation shall be aware of odour and dust issues and shall implement practices to reduce when staff or neighbours raise complaints.	Odour and dust are monitored and management practices are implemented to minimize impact on air quality.	An odour and dust management plan is documented, implemented, and regularly updated.	
*This indicator is	applicable to feedlots	only.			

NR 5	Grasslands, tame pas	Grasslands, tame pastures and native ecosystems are maintained or enhanced.*					
Goal:	Grasslands, tame pastures and native ecosystems shall be monitored and managed, and a balanced approach to positively managing ecosystems is achieved.						
-	Entry Threshold (Score: 1) Innovation Excellence (Score: 2) (Score: 3)						
Overgrazing without improvement.	out a plan for	Grasslands, tame pastures and/or native ecosystems shall be monitored and managed (including for exotic and invasive plant species).	A grazing management plan that minimizes negative impacts to grasslands and ecosystems when cattle are on pasture is implemented.	Grazing management plan is documented and reviewed annually. Plan includes goals, objectives, resource inventory, soil health, monitoring, stocking rate, time/season, duration, and supplemental and residual feed. Maintain perennial cover (native and tame grasslands) to positively impact ecosystems.			
*This indicator ap	oplies to operations th	at utilize grazing lands.					

NR 6	Habitat for wild	llife is maintained or enhanced, and wildlife co	onflict prevention is managed.				
Goal:	Measures shall be taken to maintain habitat to benefit wildlife.						
Entry Threshold (Score: 0)		Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)			
		The predators and wildlife that are present on the operation shall be known, monitored and management practices to help maintain wildlife and address predation shall be adopted.	A record of wildlife, including species at risk and an assessment of predation risk or human/wildlife conflicts, is documented.	Habitat improvements, or wildlife conflict reduction and predation risk mitigation practices, have been implemented.			

People and the Community

Intent: Human rights and well-being are respected and protected through healthy and safe work environments. The critical role that all participants within the beef value chain play in their communities regarding culture, heritage, employment, land rights and health is recognized.

The agriculture sector plays an important role in the Canadian economy and in the lives of people and the community in which they operate. The CRSB recognizes the importance of a healthy and safe work environment for all workers, including family members, which includes people being treated with equity and respect on all occasions. The CRSB interprets this as the ability to address potential questions around mental health, fairness and other social and governance criteria within the existing indicators.

Assessment for certification looks beyond adherence to all applicable laws and regulations, including without limitation, workplace health and safety legislation, and human rights legislation. Incorporating career development and growth opportunities, and community involvement into a producer's assessment against the Standard recognizes the bigger story of their operation and how they connect with their community. The opportunity for producers to connect with the public and communicate with consumers is vital to the industry.



PC 1	A healthy and s	afe work environment is provided.					
Goal:	Steps shall be taken to reduce the risk of injury and illness.						
Е	ntry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)			
		Workers are informed of the (potential) hazards and controls and have the equipment to safely complete their assigned duties. Equipment shall be maintained for operator safety.	Safety training is provided to all workers in their respective areas of work. Workers are encouraged to report equipment malfunctions and near misses.	Operation has a documented health and safety policy/program, which is implemented, reviewed and updated regularly. Policy/program includes: formal health and safety policy, risk assessment, control strategies, and training.			

PC 2	All workers are treated with equity and respect.						
Goal:	Workers shall be trea	Workers shall be treated fairly and impartially.					
	Threshold core: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)			
		There shall be an absence of discrimination and workers shall be able to express concern about their treatment without repercussion.	Where appropriate, workers are consulted and engaged in planning and operational decisions related to their role.	Operation has a documented code of ethics/conduct that is followed.			

PC 3	Career develop	ment opportunities are provided.						
Goal:	Workers shall b	Workers shall be given training and other career-related opportunities to develop their skills and expertise.						
E	ntry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)				
		Workers shall be trained for competency to complete their assigned tasks.	Employee performance reviews (whether formally or informally) are conducted at least on a yearly basis. Mentorship opportunities are provided to all workers who wish to participate.	Learning opportunities (e.g. career development program) are provided to all workers who wish to participate.				

PC 4	Operation is involved in its community (community is defined by each individual).*
Goal:	To recognize beef producers for their contributions to their community. Community is defined by each individual.

^{*}This indicator is binary (assessed as 'yes' or 'not applicable'). It is for information collection purposes only and will not be scored in the audit.

Animal Health and Welfare

Intent: Animals are respected and managed in a way that keeps pain and distress to a minimum while maintaining their overall health and welfare.

Animal health and welfare is a significant discussion and focus point for both the industry and the general public. Ensuring that animals are healthy and cared for in the best manner is essential for a sustainable production system, especially for the economic viability of an operation. Ensuring an animal's lifetime pain is kept to a minimum is extremely important, however there are times when painful procedures should be completed. The number of suitable pain medications available for livestock is a limitation, but pain management is an important and evolving area of focus for both the industry and the Standards to ensure the indicators encourage optimal animal health and welfare.

The indicators for this principle align with the National Farm Animal Care Council (NFACC) Code of Practice for the Care and Handling of Beef Cattle (2013), Code of Practice for the Care and Handling of Dairy Cattle (2009) and the Code of Practice for the Care and Handling of Veal Calves (1998). These Codes provide a reference point for nearly all the indicators within this principle, as they were developed through a multistakeholder process and contain required and recommended practices for animal care and handling in Canada.

If the producer is not transporting the animals, then transportation after the cattle leave the farmgate is beyond the control of the producer and out of scope for assessment against the Standard. However, it is the responsibility of the producer to ensure that the animals are fit for transportation prior to loading.



AHW 1	Nutritional needs of	of cattle are met.		
Goal:	Cattle are in good I	nealth and are provided sufficient food for	their physical well-being.	
	y Threshold Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
		The following requirements in the Beef Code of Practice are met. Beef Code of Practice, Section 2.1: Nutrition and Feed Management Requirements: Ensure cattle have access to feed of adequate quality and quantity to fulfill their nutritional needs at all times, and maintain proper body condition, taking into account factors such as: age, frame size, reproductive status, health status, level of production, competition and weather. Monitor cattle behavior, performance, body condition score and health on an ongoing basis and adjust the feeding program accordingly. Take prompt corrective action to improve the body condition score of cattle with a score of 2 or less (out of 5).	One of the recommended practices is implemented, or equivalent that is appropriate to the operation (e.g. cattle are sorted and fed in different groups based on cattle condition and weather). Beef Code of Practice, Section 2.1: Nutrition and Feed Management Recommended practices: Test nutrient content of feed ingredients used and balance rations as necessary. Consult a nutritionist for advice. Become familiar with potential micronutrient deficiencies or excesses in your geographic area and use appropriately-formulated supplements. Manage feedstuffs in a way to maintain quality and minimize spoilage. Avoid sudden or extreme ration changes.	Two or more of the recommended practices are implemented, or equivalent that is appropriate to the operation (e.g. total mixed rations fed to cow herd when needed; rations changed according to cattle group; consulting a nutritionist). Beef Code of Practice, Section 2.1: Nutrition and Feed Management Recommended practices: Test nutrient content of feed ingredients used and balance rations as necessary. Consult a nutritionist for advice. Become familiar with potential micronutrient deficiencies or excesses in your geographic area and use appropriately-formulated supplements. Manage feedstuffs in a way to maintain quality and minimize spoilage. Avoid sudden or extreme ration

AHW 1	Take steps to prevent exposure of	Provide a less competitive feeding	changes.
	cattle to toxins (such as: lead batteries, fertilizer, treated seed, antifreeze, nitrates) and to avoid feed with adverse physical qualities that could cause injury or limit intake.	environment for sick, injured, weak or convalescing cattle.	 Provide a less competitive feeding environment for sick, injured, weak or convalescing cattle.
	Beef Code of Practice Section 3.4: Safety and Emergencies		
	Requirements:		
	 Have a current emergency response plan to provide feed, water and care for cattle in case of emergencies. Review this plan with all responsible personnel so it can be implemented. Ensure emergency contact numbers are readily accessible and current. 		

AHW 2	Cattle have suff	ficient quantity and quality of water.		
Goal:	Water requiren	nents of cattle shall be met to support their ph	ysical needs both in terms of quality and	quantity.
E	ntry Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
		The following requirements in the Beef Code of Practice are met.	One of the recommended practices below is implemented.	Two or more of the recommended practices below are implemented.
		Beef Code of Practice, Section 2.2: Water	Beef Code of Practice, Section 2.2: Water	Beef Code of Practice, Section 2.2: Water
		Requirements:	Recommended practices:	Recommended practices:
		Ensure that cattle have access to palatable water of adequate quality and quantity to fulfill their	Check automated water sources daily to ensure they are dispensing properly.	 Check automated water sources daily to ensure they are dispensing properly.
		 physiological needs. Monitor water sources, feeding habits, behavior, performance and health on an ongoing basis and be 	Test water quality in the event of problems such as poor performance, reluctance to drink, or reduced feed consumption.	Test water quality in the event of problems such as poor performance, reluctance to drink, or reduced feed consumption.
		 prepared to adjust the watering program accordingly. Snow may only be used as a sole winter water source providing it is of sufficient quantity and quality to 	If utilizing natural water sources, provide water in troughs or bowls wherever possible to ensure cleanliness of water supply and safe animal access.	 If utilizing natural water sources, provide water in troughs or bowls wherever possible to ensure cleanliness of water supply and safe animal access.
		 meet the animals' physiological requirements. Snow must not be used as a sole water source for the following cattle: 	 Be aware of the signs of stray (tingle) voltage around water sources, such as reluctance to drink or reduced feed consumption. If using a frozen-over natural water 	 Be aware of the signs of stray (tingle) voltage around water sources, such as reluctance to drink or reduced feed consumption. If using a frozen-over natural water

AHW 2	 lactating, or newly-weaned, or that have a body condition score of less than 2.5 out of 5, or that don't have access to optimal feed resources only adequate quantities of clean, loose snow may serve as the sole water source. Monitor snow conditions on an ongoing basis. Have a back-up water source in the event of insufficient loose snow or an interruption in water supply. 	source in winter, provide an aera of open water and restrict cattle from areas of thin ice.	source in winter, provide an aera of open water and restrict cattle from areas of thin ice.

AHW 3		relfare is monitored and maintained as percreated appropriately.	er the relevant National Farm Animal Car	re Council Code of Practice; sick and
Goal:	Cattle shall be monit	ored on an ongoing basis to ensure prom	pt and appropriate treatment or care.	
-	Threshold core: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
Willful acts of abu of neglect as it rel health/welfare.	use or egregious acts lated to animal	The following requirements in the Beef Code of Practice are met. Beef Code of Practice, Section 1.1: Protection from Extreme Weather	Two of the recommended practices below are implemented. Beef Code of Practice, Section 2.1: Nutritional and Feed Management	Three or more of the recommended practices below are implemented. Beef Code of Practice, Section 2.1: Nutritional and Feed Management
		 Requirements: Cattle must have access to areas, either natural or man-made, that provide relief from weather that is likely to create a serious risk to their welfare. 	 Recommended practices: Avoid sudden or extreme ration changes. Provide a less competitive feeding environment for sick, injured, weak or convalescing cattle, 	 Recommended practices: Avoid sudden or extreme ration changes. Provide a less competitive feeding environment for sick, injured, weak or convalescing cattle,
		 Promptly assist individual cattle showing signs of not coping with adverse weather (see Sections 1.1.1 and 1.1.2 for lists of signs). 	Beef Code of Practice, Section 3.2: Sick, Injured and Cull Cattle Recommended practices:	Beef Code of Practice, Section 3.2: Sick, Injured and Cull Cattle Recommended practices:
		 Provide additional feed to meet animals' increased energy requirements when facing cold stress. 	Consult a veterinarian to address new, unknown, or suspicious illness or death losses.	Consult a veterinarian to address new, unknown, or suspicious illness or death losses.
		Beef Code of Practice, Section 1.1.1: High Temperature and Humidity	Consult a veterinarian if the incidence of a known illness suddenly increases.	Consult a veterinarian if the incidence of a known illness suddenly increases.
		Requirements: • When cattle are showing signs of	Consult a veterinarian for the most appropriate treatment options	Consult a veterinarian for the most appropriate treatment options

AHW 3

heat stress, consider the following strategies:

- o provide shade,
- o avoid handling cattle,
- o feed cattle at dusk or dawn,
- moisten the ground in part of the pen, or
- o sprinkle cattle with water.

Beef Code of Practice, Section 1.1.2: Extreme Cold

Requirements:

 Provide bedding to insulate against bare ground and to reduce mud and manure build-up on hides, which can increase heat loss.

Beef Code of Practice, Section 3.2: Sick, Injured and Cull Cattle

Requirements:

- Monitor cattle health on an ongoing basis to ensure prompt treatment or care.
- Provide appropriate care, convalescence or treatment for sick, injured or lame cattle without delay, and access to feed and water.

when an animal is sick.

- Monitor the progress of treated cattle.
- Dispose of dead cattle according to provincial/ municipal regulations.

The following apply to feedlots only:

Beef Code of Practice, Section 3.3.1: Managing Risk of Bovine Respiratory Disease

Recommended practices:

- Categorize newly-arrived cattle according to risk for BRD and other illness and apply appropriate receiving protocols.
- Whenever possible, buy calves of known source, vaccination history, and health status.

Beef Code of Practice, Section 3.3.2: Lameness

Recommended practices:

- Manage pen conditions to minimize mud and standing water.
- Work with your veterinarian to identify and resolve sudden increases in the incidence of lameness.

when an animal is sick.

- Monitor the progress of treated cattle.
- Dispose of dead cattle according to provincial/ municipal regulations.

The following apply to feedlots only:

Beef Code of Practice, Section 3.3.1: Managing Risk of Bovine Respiratory Disease

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Beef Code of Practice, Section 3.3.2: Lameness

Recommended practices:

- Manage pen conditions to minimize mud and standing water.
- Work with your veterinarian to identify and resolve sudden increases in the incidence of lameness.

AHW 3

 Monitor the animals' response to therapy or care and, if the initial treatment protocol fails, then reassess treatment options or seek veterinary advice.

The following apply to feedlots only:

Beef Code of Practice, Section 3.3.1: Managing Risk of Bovine Respiratory Disease

Requirements:

- Monitor the behavior of newlyarrived feedlot cattle to facilitate the early detection of illness.
- Have a disease prevention strategy for new arrivals into a feedlot.

Beef Code of Practice, Section 3.3.2: Lameness

Requirements:

- Provide appropriate care, convalescence or treatment for lame cattle without delay, and access to feed and water.
- Monitor the animals' response to therapy or care and, if the initial treatment protocol fails, then reassess treatment options or seek veterinary advice.

Beef Code of Practice, Section 3.3.3:

Beef Code of Practice, Section 3.3.3: Nutritional Disorders Associated with High Energy Feeding

Recommended practices:

- Monitor feed bunks to assess prior consumption and adjust feeding accordingly.
- Include forage of effective particle length in all diets to reduce subacute ruminal acidosis.
- Consider adjusting rations to prevent digestive disorders when cattle feed intake is interrupted (due to storm, power outage, machinery breakdown, etc.).

Beef Code of Practice, Section 3.3.4: Buller-Steer Syndrome

Recommended practices:

 Monitor closely for relapse if bullers are re-introduced to their home pen. Beef Code of Practice, Section 3.3.3: Nutritional Disorders Associated with High Energy Feeding

Recommended practices:

- Monitor feed bunks to assess prior consumption and adjust feeding accordingly.
- Include forage of effective particle length in all diets to reduce subacute ruminal acidosis.
- Consider adjusting rations to prevent digestive disorders when cattle feed intake is interrupted (due to storm, power outage, machinery breakdown, etc.).

Beef Code of Practice, Section 3.3.4: Buller-Steer Syndrome

Recommended practices:

 Monitor closely for relapse if bullers are re-introduced to their home pen.

AHW 3	Nutritional Disorders Associated with High Energy Feeding
	Requirements:
	 Design, implement, evaluate and adjust your feeding program to reduce the risk of nutrition-induced disorders, and consult your veterinarian or a nutritionist when needed.
	 Transition cattle from high-forage to high-energy rations gradually to avoid abrupt dietary changes.
	Beef Code of Practice, Section 3.3.4: Buller-Steer Syndrome
	Requirements:
	 Bullers must be promptly removed from their pen.

AHW 4	Animal health produ	cts are responsibly used and disposed.		
Goal:		cts shall be used in a responsible manner ately dispose of animal health products a		elationship when required. Efforts shall
-	Threshold core: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
No valid Vet-Clier relationship.	nt-Patient	Valid Vet-Client-Patient relationship. Processes shall be in place to store and use animal health products according to label directions and/or vet prescription. Used bottles/containers and expired drugs shall be disposed according to local availability.	Documented vaccination, parasiticide and treatment records (group and/or individual). Documented veterinary health protocols for vaccination, parasite control, and treatment of sick cattle. Worker training on accurate disease diagnosis and proper use of animal health products provided by veterinarian. Documented herd health program developed in collaboration with veterinarian.	Individual animal health treatment records are kept. Producer and veterinarian work together and regularly monitor disease risks to improve animal health through good animal husbandry practices. Collaborative efforts are made to improve animal health or husbandry through innovative methods, such as participation in research.

AHW 5	Steps are taken to m	itigate/minimize animal pain and distress	5.	
Goal:	Animal pain shall be	minimized or mitigated during physical p	rocedures on cattle when possible.	
_	hreshold ore: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
Pain control requir Code of Practice ar unless under veter recommendation.	•	The following requirements in the Beef Code of Practice are met. Beef Code of Practice, Section 4.2 Reproduction and Calving Management Caesarean sections must be conducted by a veterinarian or qualified trained personnel using accepted surgical techniques and appropriate local anesthesia and post-operative pain control. Consult your veterinarian on pain control when spaying heifers. Beef Code of Practice, Section 4.3: Identification Requirement: Do not brand wet cattle due to the risk of scalding. Beef Code of Practice, Section 4.4: Disbudding and Dehorning Requirement:	Two of the recommended practices below are implemented. Beef Code of Practice, Section 4.4: Disbudding and Dehorning Recommended practices: Use homozygous polled bulls where practical to eliminate the need for disbudding or dehorning. Avoid dehorning at the time of weaning to reduce stress. Beef Code of Practice, Section 4.5: Castration Recommended practices: Consult your veterinarian about pain mitigation strategies for castration. Avoid castrating at the time of weaning to reduce stress. When castrating weaned cattle, use banding to reduce the risk of excessive bleeding, and for	Three or more of the recommended practices below are implemented. Beef Code of Practice, Section 4.4: Disbudding and Dehorning Recommended practices: Use homozygous polled bulls where practical to eliminate the need for disbudding or dehorning. Avoid dehorning at the time of weaning to reduce stress. Beef Code of Practice, Section 4.5: Castration Recommended practices: Consult your veterinarian about pain mitigation strategies for castration. Avoid castrating at the time of weaning to reduce stress. When castrating weaned cattle, use banding to reduce the risk of excessive bleeding, and for

AHW 5

- Dehorning must be performed only by competent personnel using proper, well-maintained tools and accepted techniques.
- Seek guidance from your veterinarian on the availability and advisability of pain control for disbudding or dehorning beef cattle.
- Disbud calves as early as practically possible, while horn development is still at the horn bud stage (typically 2-3 months).
- Use pain control, in consultation with your veterinarian, to mitigate pain associated with dehorning calves after horn bud attachment.

Beef Code of Practice, Section 4.5: Castration

Requirement:

- Castration must be performed by competent personnel using proper, clean, well-maintained instruments and accepted techniques.
- Seek guidance from your veterinarian on the optimum method and timing of castration, as well as the availability and advisability of pain control for castrating beef cattle.

operator safety.

- Ensure that tetanus vaccinations are current when applying bands to castrate bulls over 180kg (400lbs).
- Monitor calves after castration.
 Check calves frequently to ensure that they are nursing or eating, and that there are no signs of infection and/or abnormal postsurgical bleeding.
- Identify and record improperly castrated cattle or those with undescended testicles for appropriate further management.

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 Check calves frequently to ensure that they are nursing or eating, and that there are no signs of infection and/or abnormal postsurgical bleeding.
- Identify and record improperly castrated cattle or those with undescended testicles for appropriate further management.

AHW 5	 Castrate calves as young as practically possible. Use pain control, in consultation with your veterinarian, when castrating bulls older than nine months of age. Use pain control, in consultation with your veterinarian, when castrating bulls older than six months of age. 	

AHW 6	Decision points for e	uthanasia are clear and methods of eutha	nasia are acceptable.	
Goal:	Cattle shall be eutha	nized following the requirements in the a	pplicable National Farm Animal Care Co	ouncil Code of Practice.
	Γhreshold ore: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)
personnel using in equipment.	ze per the Beef Code	The following requirements in the Beef Code of Practice are met. Beef Code of Practice, Section 6.1: Euthanasia and Culling Decisions Requirements: Euthanize (or cull) without delay cattle that: are unlikely to recover, fail to respond to treatment and convalescent protocols, have chronic, severe, or debilitating pain and distress, or are unable to get to or consume feed and water, or show continuous weight loss or emaciation. Beef Code of Practice, Section 6.2: Methods of On-Farm Euthanasia Requirements: An acceptable method for	Training for workers on how to euthanize cattle (if workers euthanize animals on-farm). Record of deaths and euthanized cattle.	Written non-ambulatory protocol or early salvage plan that is followed, reviewed and updated as needed.

AHW 6	euthanizing cattle must be used
	 (see Table 6.1). Euthanasia must be performed by competent personnel (through training, experience, or mentorship).
	 Equipment used for euthanasia, such as guns or captive bolt devices, must be maintained according to manufacturers'
	instructions to ensure proper function. Beef Code of Practice, Section 6.3: Confirmation of Insensibility and
	Death Requirements:
	 Evaluate the animal's consciousness immediately after the application of the appropriate euthanasia method by checking for a corneal reflex (see Code).
	 Be prepared to immediately deliver a second application should the first attempt not render the animal immediately insensible.
	 Confirm death before moving or leaving the animal (see Code).
	reaving the annual (see edae).

AHW 6	 Touch the eyeball and note if the animal blinks (corneal reflex). An insensible animal will not blink. Confirm death: A lack of heartbeat and respiration should be used to confirm death: valuate heartbeat by physical palpation or by placing a stethoscope over the left lower chest area of the animal, just behind the elbow. Evaluate respiration by observing the chest for any breathing movement. Note that breathing may be slow or erratic in an unconscious animal. 	

AHW 7	Feeding areas and pastures allow cattle to express normal behaviours including resting postures.				
Goal:	Cattle shall be kept in an environment conducive to normal behaviour in feeding areas and pastures.				
Entry Threshold (Score: 0) Achievement (Score: 1)					
Entry Threshold		Adequate space shall be provided for cattle to express normal behaviour (i.e. all cattle are able to lay down at the same time; cattle can move freely and access feed and water).			

Unr	necessary animal s	stress is minimized.					
ioal:	Animal caretakers shall minimize cattle stress in the context of handling, loading and unloading, transportation, cattle facilities and mental conditions and recognize and react appropriately to signs of stress.						
Entry Threshold (Score: 0)		Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)			
Inability to understand implement low stress practices.		 The requirements in the Beef Code of Practice below are met. Requirements: Animal handlers must be familiar with cattle behavior (through training, experience or mentorship) and use quiet handling techniques. Electric prods must only be used to assist movement of cattle when animal or human safety is at risk or as a last resort when all other humane alternatives have failed and only when cattle have a clear path to move. Do not use electric prods repeatedly on the same animal. Do not use electric prods on the genitals, face, udder or anal areas. Do not use electric prods on calves less than three months of age that can be moved manually. Beef Code of Practice, Section 1.2: 	At least one of the recommended practices from each of the Code sections below are implemented. Beef Code of Practice, Section 4.1: Handling and Moving Cattle Recommended practices: Adjust your handling techniques and positioning according to the response of the animals and the situation. Take a course in cattle handling techniques; mentorship/learning. Use handling tools, such as flags, plastic paddles or rattles, to direct animal movement. Evaluate your cattle handling techniques regularly, and make improvements to them as needed. Factors to consider include the percentage of cattle: o falling (belly or torso touches	Two or more of the recommended practices from each of the Code sections below are implemented. Beef Code of Practice, Section 4.1: Handling and Moving Cattle Recommended practices: Adjust your handling techniques and positioning according to the response of the animals and the situation. Take a course in cattle handling techniques; mentorship/learning. Use handling tools, such as flags, plastic paddles or rattles, to direct animal movement. Evaluate your cattle handling techniques regularly, and make improvements to them as needed. Factors to consider include the percentage of cattle: o falling (belly or torso touches the			

8 WHA

Facilities for All Cattle

Requirements:

- All beef operations must have access to equipment or facilities for the safe handling, restraint, treatment, segregation, loading, and unloading of cattle.
- Provide traction in handling areas to minimize cattle slips and falls.

Operation shall be aware of the Recommended code of practice for the care and handling of farm animal: Transportation (CARC, 2001).

- stumbling or tripping (knee contacts ground) after being released from the chute,
- requiring the use of electric prods to move,
- running or jumping when leaving the chute, and
- vocalization as a result of restraint.
- Increasing levels of the above handling events may indicate a need for changes in lighting, noise levels, equipment, handling methods, or environment.

Beef Code of Practice, Section 1.2: Facilities for All Cattle

Recommended practices:

- Ensure that all cattle facilities and areas are safe and free of hazards that can cause injury.
- Ensure restraint devices are used properly. Pressure that causes pain or discomfort can cause cattle to panic and should be avoided.
- Minimize noise from handling equipment to facilitate movement. High-pitched sounds

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AHW 8		are especially disturbing to cattle. Beef Code of Practice, Section 5.3: Loading and Receiving			are especially
				Beef Code of Prac Loading and Rece	
		Re	ecommended practices:	<u>R</u>	ecommended p
		•	Cattle should be provided with enough floor space in a vehicle to maintain their balance and change position within the compartment.	•	Cattle should be enough floor smaintain their change position compartment.
		•	Eliminate gaps between the end of the loading ramp and the vehicle.	•	Eliminate gaps of the loading vehicle.
		•	Ensure that the loading area promotes smooth flow of cattle on or off the vehicle. Avoid significant changes in floor height or distractions. If a difference in height between the loading surface and the vehicle floor is significant enough to cause balking, a ramp should be used.	•	Ensure that the promotes smoon or off the visignificant charactions height between surface and the significant encountry balking, a ram
		•	Schedule loading and transport to try and avoid long delays in transit (e.g. borders) or at the destination (e.g. packing plants).	•	Schedule load try and avoid I transit (e.g. bo destination (e.
		•	Locations receiving cattle should be equipped with personnel or facilities to meet the animals' needs upon arrival, such as water or feed.	•	Locations receive be equipped with facilities to me needs upon an or feed.

ly disturbing to cattle.

ractice, Section 5.3: eceiving

practices:

- be provided with space in a vehicle to eir balance and ion within the nt.
- ps between the end ng ramp and the
- the loading area nooth flow of cattle vehicle. Avoid nanges in floor height ns. If a difference in een the loading the vehicle floor is nough to cause mp should be used.
- nding and transport to l long delays in borders) or at the (e.g. packing plants).
- ceiving cattle should with personnel or neet the animals' arrival, such as water or feed.

Food

Intent: The safety and quality of beef products is ensured and information-sharing systems that promote sustainability are utilized..

In response to what has been called an ongoing global food crisis, conversations about food security and sustainable food systems have become commonplace. Food systems must be able to provide affordable healthy diets produced in a sustainable and resilient way.

Boundaries for food safety can be difficult to define, and the Standard requirements assess only what is within the control of and therefore the responsibility of an individual operator. Effective food safety plans, traceability and information-sharing systems, and government oversight by the Canadian Food Inspection Agency are factors that contribute to safe beef production across Canada.

For this Standard, the CRSB defines quality beef as not solely in reference to Canadian beef quality grades, as many production practices contribute to a broader definition of quality. For these purposes, quality beef should be measured and verified by production practices that may include management of cattle health, growth, handling and processing, feeding practices, genetics, and providing an environment to minimize stress, carcass defects and disease. These measures help support a consistent customer experience with a high level of tenderness, juiciness and flavour.



FOOD

Fd 1	Operation contributes to the production of safe food.					
Goal:	Measures shall be taken on the beef production operation to support food safety.					
		Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)		
Entry Threshold (Score: 0) Knowingly shipping cattle that will end up immediately at slaughter prior to completion of drug withdrawal time or with broken needles without notifying next owner.		Operation shall work with licensed bovine veterinarian when unintended product or dosage is given to determine appropriate drug withdrawal period. Suspect broken needles and other physical risks shall be managed appropriately to avoid entry into the food chain. Ruminant and non-ruminant feed shall be stored separately and separate equipment shall be used for mixing. Withdrawal periods of animal health products shall be followed prior to shipping cattle to slaughter.	On-farm food safety training has been completed (e.g. through industry association programs or veterinary clinics).	Operation can demonstrate with documented records how it has checked the shipments of animals to slaughter that withdrawal periods have been met.		

FOOD

Fd 2	Operation contri	Operation contributes to the production of quality beef.				
Goal:	Operation shall be aware of and/or adopt management practices that seek to enhance quality beef.					
	try Threshold (Score: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)		
		Operation shall be aware of the factors that influence quality beef.	Animal management practices that optimize the production of quality beef are employed.	Operation has a documented strategy to enhance quality beef.		

Efficiency and Innovation

Intent: Encourage the adoption of innovation and technological advances to optimize production, improve efficiency and reduce waste, adding to the economic resiliency of individual operations and the industry.

Sustainability is broadly recognized as a journey of continuous improvement, not a fixed destination. Many operations are already highly efficient due to modern agricultural research and technological innovation, such as updated machinery and improved genetic technologies, but producers are still seeking to increase the efficiency of their operations. It is important to note that the use of new technology and innovation should be done responsibly and not at the expense of other principles (e.g. animal care should not be compromised for efficiency gains), and in compliance with all applicable laws and regulations. This principle does not ban or require the use of any technology or innovation but rather stresses its responsible use.

Building a sustainable continuous system is not without challenges. The scalability of innovation to operations of varied sizes and the availability for technology across different regions, particularly in rural areas, needs to be practical. Producers should be allowed to embrace innovation and make efficiency improvements at a realistic cost without penalizing the early adopters.



El 1	Operation reduces, reuses and recycles, as feasible facilities, services and technologies exist or become available.				
Goal:	Operation shall reduce, reuse and recycle wherever feasible.				
	Threshold core: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)	
		Operation shall identify the types of (non-nutrient) waste it generates and make efforts to reduce waste.	Operation reduces, reuses or recycles farm or ranch-related items, given local availability of services.	Operation implements a reuse and/or recycling strategy and can demonstrate evidence of waste reduction.	

Energy resources are responsibly used.				
Efficient sources of energy are considered and adopted, where feasible.				
Threshold core: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)	
	Operation shall identify and monitor their energy inputs, including fuel.	Energy efficient options are implemented when feasible.	Energy efficient options are adopted, efficiencies are being measured, and positive progress of energy use is demonstrated.	
	Efficient sources of e	Efficient sources of energy are considered and adopted, where Threshold	Efficient sources of energy are considered and adopted, where feasible. Threshold core: 0) Achievement (Score: 1) Operation shall identify and monitor Energy efficient options are	

EI 3	Innovation and technology are utilized to improve responsible production.					
Goal:	Innovation and technology shall be utilized to improve production efficiency in a responsible manner.					
Entry Threshold (Score: 0)		Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)		
		Operation shall have animal and land productivity goals.	Practices to improve production efficiency are utilized.	Operation monitors and documents cattle and land performance and demonstrates progress.		

EI 4	Crop input products	are safely and responsibly used, stored a	nd disposed.*			
Goal:	Crop input products such as fertilizers, pesticides and fungicides shall be used, stored and disposed of in a safe and responsible manner.					
_	Threshold core: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)		
		Crop input products shall be stored in a manner that reduces risk of contamination and pollution. Crop input products shall be used according to label instructions. Disposal of crop input products shall be undertaken according to local availability (or repurposed).	Persons using crop input products are trained on safe handling and application of those products. Spills are managed appropriately. Operation manages according to a 4R nutrient stewardship plan and/or an integrated pest management plan.	4R and/or Integrated Pest Management Plans are documented and reviewed annually and applied in a precise way according to label/soil test recommendation. An emergency spill plan is in place and documented.		
*This indicator ap	*This indicator applies only to producer <mark>s who use crop input products.</mark>					

EI 5	Continuous learning regarding beef production is pursued.				
Goal:	Continuous learning about sustainability in beef production shall be undertaken.				
-	Threshold core: 0)	Achievement (Score: 1)	Innovation (Score: 2)	Excellence (Score: 3)	
		Within the last 5 years, operation can demonstrate application 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 can demonstrate application 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 can demonstrate application 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:

- increased costs and time,
- · lack of financial resources,
- lack of financial incentives to change current practices,
- lack of awareness and education around some of the topics the indicators seek to address,
- lack of practical science-based tools to measure outcomes accurately,
- lack of clarity on indicators and how to achieve,
- lack of access to approved medication for the treatment of animals in Canada,
- shortage of labour and trained personnel,
- detrimental environmental conditions (e.g. "Acts of God"),
- · misinterpretation of information,
- public misconceptions about industry practices and sustainability,
- trade-offs between implementation of some indicators and economic sustainability, and
- potential conflicts between implementation of indicators.

The CRSB continues efforts to address many of these challenges through its four pillars of work.