

Verified Beef Production Plus PRODUCER MANUAL

Version 1.6 Nov 2018



Animal Care



On-Farm Food Safety



Biosecurity



Environmental
Stewardship

A national program to identify responsible practices that contribute to sustainability, cattle care, food safety and disease protection for beef cattle operations in Canada.

BUILDING TRUST THROUGH SUSTAINABLE BEEF PRODUCTION

Verified Beef Production Plus (VBP+) is an initiative by the Canadian Cattlemen's Association and Beef Cattle Research Council



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Animal Care, Biosecurity and Environmental Stewardship

Verified Beef Production Plus
PRODUCER MANUAL
Supplemental



Animal Care



On-Farm Food Safety



Biosecurity



Environmental Stewardship

BUILDING TRUST THROUGH SUSTAINABLE BEEF PRODUCTION

INTRODUCTION

Verified Beef Production Plus (VBP+) is an expansion of the Canadian beef industry’s recognized on-farm food safety program to include animal care, biosecurity and environmental stewardship. These are areas of interest for consumers and food companies, and identifying responsible or sustainable practices assist in building transparency with customers and the international marketplace.

Development of these new modules has been industry-led. Facilitated by the Canadian Cattlemen’s Association, the end result is as a set of practice outcomes for the farm and feedlot level. Program elements have involved cattle producers, veterinarians, researchers and other stakeholders beyond the farm gate to ensure relevance.

VBP+ adheres to the founding principles of building a practical solution that is robust, affordable and credible. It continues to offer the voluntary audit option based on recognized audit principles, and using 3rd party auditors.

VBP+ allows producers to prove their practices against national standards such as the Code of Practice for Beef Cattle Care, national beef biosecurity standard, and environmental farm plans (EFPs). Outcomes highlighted in grey shading in this manual are a requirement if a cattle operation is aiming for full certification status. They are also identified separately in the box titled program requirements.

PROGRAM REQUIREMENTS
Outcomes shown in this box throughout this manual are a requirement if a cattle operation is aiming for full certification status.

Moving Forward with Implementation

Producers who want to initiate or work toward full VBP+ certification status will need to complete a self-assessment on the new modules and submit a copy to their provincial VBP+ coordinator.

- If not prior-certified with VBP+ as per the on-farm food safety module, once a self-assessment is complete, cattle operations can request an on-farm validation audit by contacting their provincial VBP+ coordinator.
- After successful completion of the initial audit, or if already audited, the cattle operation then meets on-going certification assessments which are a pattern of annual records assessment or self-declarations, with a re-audit in the 6th year.
- Beef cattle operations must continue to meet applicable municipal, provincial and federal animal health, traceability and environmental regulatory requirements.
- Cattle operations must be prepared to foster a working environment where employees are treated with equity/respect and safe working conditions exist. Staff and/or family members are trained or mentored on what is expected.
- It is recommended that cattle operations are willing to share aggregate information to BIXS or other means, so that stakeholders in the beef value chain can source cattle that meet marketing claims.
- Sample records that assist in demonstrating conformance with VBP Plus program are available in hardcopy or electronic format.

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ANIMAL CARE

This module focuses on the quality care that beef cattle operations and feedyards provide to their livestock on a daily basis. It is based on Canada's Code of Practice for the Care and Handling of Beef Cattle released in September 2013, in particular the summary of requirements as described on pages 56 to 61. Practices on cow-calf, backgrounding and in feedyards will be reviewed in an audit with the intent that **outcomes related to feed/water, veterinary care, shelter, herd health, euthanasia, handling, transportation, and painful procedures are met.**

It is expected that a valid vet/client/patient relationship exists where veterinary advice is sourced particularly regarding animal health and prudent use of antibiotics. This will vary by size and complexity of the operation but is important to demonstrate responsible practices. Evidence as an example include written veterinary prescriptions or possible vaccines purchased from a vet clinic. Veterinarians are key in a partnership approach to successful animal health outcomes.

Beef cattle operations need to mentor employee, family and volunteer help to ensure cattle are treated appropriately and as quietly as possible. This ensures cattle well-being and that people doing the work can complete with care and result in a safe and a successful outcome. The mistreatment of any cattle must not be tolerated, and cattle operations need to be able to address less-than-adequate handling immediately so that actions are not repeated.

In addition biosecurity practices appropriate to the operation may assist in avoiding disease outbreaks or



reduce disease transfer, and are outlined elsewhere in this manual. These practices complement animal health and should also be considered as part of on-going efforts to avoid introducing a disease wherever possible.

Beef cattle operations must meet Canada's Code of Practice for the Care and Handling of Beef Cattle requirements. The following is intended to outline outcomes that will be assessed by a VBP Plus on-farm validation audit and subsequent annual assessments.

PROGRAM REQUIREMENTS

Outcomes related to feed/water, veterinary care, shelter, herd health, euthanasia, handling, transportation and painful procedures are met.

A. ANIMAL HEALTH

- 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.
- The operation has access to equipment or facilities for the safe handling, restraint, treatment, segregation, loading, and unloading of cattle.
- Design or manage indoor and outdoor cattle facilities to provide well-drained, comfortable resting areas.
- Provide traction in handling areas to minimize cattle slips and falls.
- All cattle in a group must have sufficient space to adopt normal resting postures at the same time.
- Cattle kept in groups must be able to move freely around the pen and access feed and water.
- Stocking density must be managed such that weight gain and duration of time spent lying is not adversely affected by crowding.
- Maintain indoor air quality and ventilation at all times.
- Cattle housed indoors that do not have access to natural light should/must be provided with supplementary lighting to allow natural behaviour patterns and monitoring of the cattle.
- The operation provides an environment that is safe and clean for calving and that promotes calf survival.

Monitoring Cattle

- Monitor cattle for 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.
- Monitor the animals' response to therapy or care and, if the initial treatment protocol fails, then reassess treatment options or seek veterinary advice.
- Euthanize without delay cattle that are unlikely to recover, fail to respond to treatment and convalescent protocols, have chronic, severe, or debilitating pain and distress, are unable to get to or consume feed and water, or show continuous weight loss or emaciation.

Handling Cattle

- Animal handlers are familiar with cattle behaviour (either 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.
- Electric prods are not used repeatedly on the same animal, nor on the genitals, face, udder or anal areas, or on calves less than 3 months of age.
- Willful mistreatment or intentional harm of cattle is unacceptable. This includes but is not limited to: beating an animal; slamming gates on animals; allowing herd dogs to continue pushing cattle with nowhere to move; dragging or pushing cattle with machinery (unless to protect animal or human safety).

Calving Assistance and Surgical Procedures

- Monitor cows and heifers to identify calving difficulties and ensure prompt assistance when required. Promptly assist calves and recently-calved cows showing signs of distress.
- Monitor that newborn calves suckle their dams paying special attention to high risk cases. Administer colostrum or a commercial colostrum substitute to any newborn calf showing signs of not having received it by suckling.
- 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.
- Spaying must be carried out by a veterinarian or qualified trained personnel. Consult your veterinarian on pain control when spaying heifers.

Branding, Dehorning, Castration and other procedures

- When branding is required for export, by policy, or as permanent proof of ownership, it must be performed with the proper equipment, restraint and by personnel with training or sufficient combination of knowledge and experience to minimize pain to the animal. Do not brand wet cattle due to risk of scalding.



- 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.



- 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.
- Castrate calves as young as practically possible.
- Use pain control, in consultation with your veterinarian, when castrating bulls older than six months of age.
- Beef cattle must not be tail docked unless on the advice of a veterinarian.

Euthanasia or Putting an Animal Down

- An acceptable method for euthanizing cattle must be used and done by competent personnel. (see Table 6.1 in *Beef Code of Practice*).
- Equipment used for euthanasia, such as guns or captive bolt devices, must be maintained according to manufacturers' instructions to ensure proper function.
- Be prepared to immediately deliver a second application should the first attempt not render the animal immediately insensible.
- Non-ambulatory cattle may not be dragged or forced to move prior to euthanasia.
- Death is confirmed before moving or leaving the animal, and confirm insensibility by touching the eyeball and note if the animal blinks (corneal reflex). An insensible animal will not blink.
- Confirm death via a lack of heartbeat and respiration:
 - Evaluate 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 and erratic in an unconscious animal.
- Monitor the animals' response to therapy or care and, if the initial treatment protocol fails, then reassess treatment options or seek veterinary advice.
- Promptly cull or euthanize lame cattle that have a poor prognosis for recovery, or that do not respond to therapy or care.
- Design, implement, evaluate and adjust the feeding program to reduce the risk of nutrition - induced disorders, and consult a veterinarian or a nutritionist when needed.
- Transition cattle from high-forage to high-energy rations gradually to avoid abrupt dietary changes.
- Bulls are promptly removed from their pen or otherwise dealt with.
- A veterinarian is consulted to develop a program for managing pregnant heifers. Appropriately manage animals that calve and provide appropriate care for the calf.
- Feedyards and backgrounding lots with 5,000 head and over must have a written plan to deal with non-ambulatory and downer animals. It is highly recommended that lots smaller than 5,000 head capacity have a written plan; see available template.
- Feedyards over 5,000 head will complete a cattle handling assessment as part of a validation audit at a frequency to be determined.

Feedyards and Backgrounding Lots

- Monitor the behaviour of newly-arrived feedlot cattle to facilitate the early detection of illness.
- Have a disease prevention strategy for new arrivals into a feedlot.
- Provide appropriate care, convalescence or treatment for lame cattle without delay.

PROGRAM REQUIREMENTS

Feedyards and backgrounding lots with 5,000 head and over must have a written plan to deal with non-ambulatory and downer animal.

B. CATTLE FEEDING AND WATER

- Monitor cattle behaviour, performance, body condition score and health on an ongoing basis and adjust the feeding program accordingly.
- 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.
- Take prompt corrective action to improve the body condition score of cattle with a score of 2 or less (out of 5).
- Take steps to prevent exposure of 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.



Water Sources

- Ensure that cattle have access to palatable water of adequate quality and quantity to fulfill their physiological needs. Monitor water sources, feeding habits, behaviour, performance and health on an ongoing basis and be 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 meet the animals' physiological requirements. Snow must not be used as a sole water source for lactating, newly-weaned cattle or those with 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.

- A back-up water source is available in the event of insufficient loose snow or an interruption in water supply.

C. SHIPPING AND TRANSPORTATION

Transporters must follow the most current federal and provincial animal transport regulatory requirements.

- Cattle must be transported by competent personnel (through training, experience or mentorship) using safe, well-maintained equipment.
- The right of the transporter to refuse to load cattle as unfit for transport must be respected. The reason for refusal must be addressed.
- Cattle producers and transporters must immediately report instances of inhumane handling to proper authorities.
- Do not load or unload livestock in a manner that is likely to cause injury or undue suffering. Cattle must be able to stand in a normal posture without coming into contact with the roof or upper deck of the vehicle.
- Cattle that arrive unable to rise and walk unassisted (non-ambulatory cattle/downers) must be examined on arrival and their likelihood of recovery assessed. Cattle must not be dragged from the vehicle while conscious; they must be humanely stunned or euthanized on the vehicle prior to unloading. Once unloaded, a stunned animal must be immediately



confirmed dead or euthanized. If an animal is likely to recover, it may only be unloaded for veterinary treatment under the advice of a veterinarian.

- Segregate cattle that are incompatible by reason of their nature, temperament, sex, weight or age.
- Ensure that cattle have proper ventilation, are protected from extreme weather such as extreme cold, windchill or extreme heat.
- Provide safe and secure footholds (footing) or adequate bedding to prevent cattle from slipping and falling.

D. NEGLECT OR ABUSE IN OTHER OPERATIONS

Occasionally there may be practices of others in the locality that result in neglect of cattle, starvation or abuse. While this may be highly unusual, for the welfare of the cattle it might be necessary to contact

a local expert or others outside the region to carefully investigate. Incidences must be dealt with on a case-by-case basis and should be considered as protection for the animals.



BIOSECURITY

Biosecurity at the farm and feedlot level is a set of practices to prevent and mitigate introduction of disease, or to assist in the control of further disease spread within the operation. While beef cattle operations in Canada operate in an open environment with interaction with many wildlife species and in close proximity to other cattle operations, practices exist which can assist the effort.

This module focuses on the areas where it is most probable that a difference in actions may prevent disease introduction or spread. It is based on Canada's Beef Cattle On-Farm Biosecurity Standard which was completed in 2013. The associated Beef Biosecurity Implementation Manual describes the range of practices

that can be undertaken, and provides the basis for potential options for a beef cattle operation.

Beef biosecurity practices also protect the national beef herd as all operations work against disease introduction from other countries. That is achieved through appropriate visitor control and by not bringing in food and other prohibited products to Canada.

A. ANIMAL HEALTH MANAGEMENT

Knowing the signs of disease and managing sick animals as soon as possible assists in animal health and potential of further disease transfer. Veterinarians are an excellent source of advice on treatments, disinfectant use, and the use of vaccines to prevent illness.

A record on animal health treatment, vaccinations and deaths/euthanized cattle must be kept so that disease management success may be evaluated over the longer term. The existing VBP sample records offer a suggested format for these records, which can be adapted to the operation's record-keeping. Alternatively computerized animal health software can track this information.

Other practices that help manage against disease transfer:

- Isolating incoming replacement cattle for a time period before introduction to herd; similar practices for 4-H or show cattle returning home.
- Doing the same as above for a foster calf or dam, purchasing from a herd with known animal health status, and keeping them separate from the herd.

- Keeping a record of incoming cattle purchases, and sales/shipping of cattle out from the operation including date and trucker/company information.
- Consider single use needles for sick and suspect animals.
- If using comingled pasture, consider vaccination and bull testing policies.
- When visiting a vet clinic or auction mart, consider using different footwear or outerwear, or disinfect prior to coming back to own operation.
- Cattle are not exposed to raw human sewage pump out or sewage storage/lagoons. Access is protected from cattle.

PROGRAM REQUIREMENTS

A record on animal health treatment, vaccinations and deaths/euthanized cattle must be kept.
Access to raw sewage is protected from cattle.

B. COMMUNICATION AND TRAINING

Persons undertaking animal health and shipping on the operation are aware of potential biosecurity concerns specific to that operation. A visitor policy could include clean outerwear, visitor instruction signage, and farm worker policies to assist against transfer of disease.

Custom equipment or borrowed machinery should be clean and not carry dirt or manure before going into pens or other areas where animals are housed.

Persons working on the operation should know the signs of diseases that are reportable, and where to find further information. Livestock managers know who to contact in case of a disease emergency.

Visitor Actions

- Persons visiting or returning from international travel in rural areas with livestock take precautions, including complete clothing/footwear change and cleaning or disinfecting materials before entry back to cattle operation.

- Consult with your veterinarian before leaving or after returning to your operation, if in contact with livestock outside of the country.
- Ask questions of incoming visitors prior them arriving on the premise:
 - Have they been outside Canada in previous two weeks
 - Have they been on farm/ranch with livestock outside Canada and USA
 - Have they been exposed to a reportable animal health disease in past 6 months

PROGRAM REQUIREMENTS

Livestock Managers know who to contact in case of a disease emergency.

Persons visiting or returning from international travel in rural areas with livestock take precautions, including complete clothing/footwear change and cleaning or disinfecting materials before entry back to cattle operation.

C. REFERENCE (Canadian Beef Cattle On-Farm Biosecurity Implementation Manual)

Manage and Minimize Animal Movement Risks

Manage commingling:

- Segregate and, when warranted, vaccinate, test, and otherwise treat, incoming animals.
- Obtain and share information about commingled animals with previous and future owners.
- Minimize contact with animals of other species and from other operations to the extent possible.

Manage movements of high-risk and highly susceptible animals:

- Manage and minimize movements of, and contacts with, high-risk and highly susceptible animals.
- Use or request clean trucks for movement of highly susceptible animals.

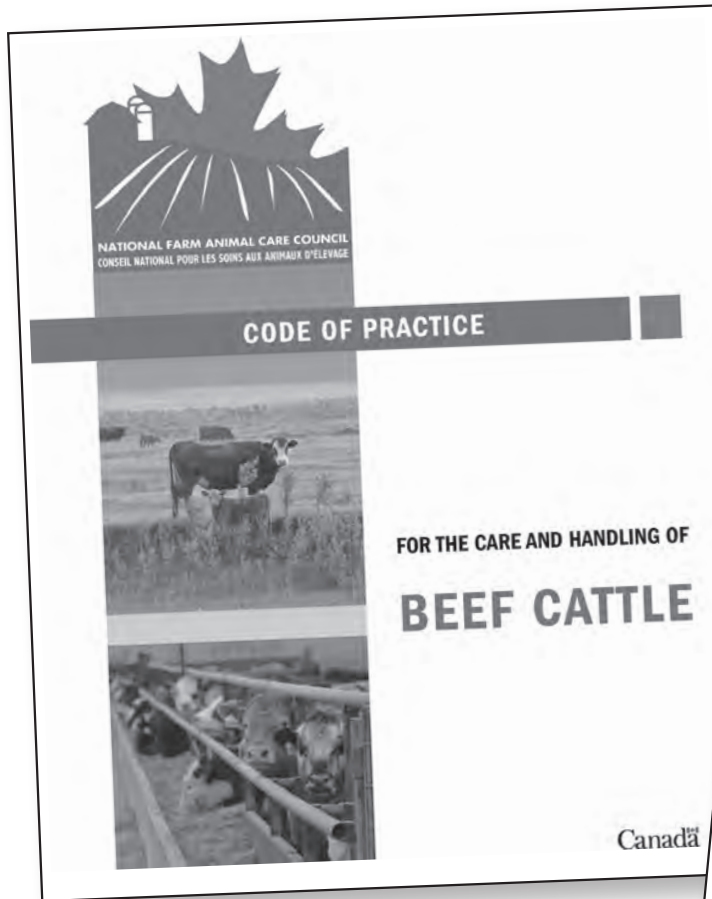


Manage the Movement of People, Vehicles, Equipment and Tools

- Apply sanitation practices that are relevant to personnel, visitors, vehicles, equipment, and tools on entry to, within, and on exit from production areas.
- Minimize the use of the same equipment for both “clean” and “dirty” tasks.
- Ensure production area perimeters are sufficient to contain livestock, with access points that can be closed to prevent access by people, other than deliberate non-compliance.
- Post biosecurity signs at access points to production area and farmyard.
- Manage and dispose of deadstock and manure to minimize contact with live animals.
- Minimize pests to reduce exposure to livestock to the extent practical.
- Manage livestock to reduce exposure to wildlife to the extent practical
- Ensure facilities are maintained and clean.

Manage Animal Health Practices

- Establish and maintain a working relationship with a veterinarian.
- Manage herd health according to a documented herd health plan, prepared in consultation with a veterinarian.
- Obtain water, feed, medications, and other inputs from safe and reliable sources, and manage or store these resources to ensure their ongoing safety and efficacy.



Code of Practice for the Care and Handling of
Beef Cattle 2013
www.nfacc.ca

Canadian Beef Cattle On-Farm Biosecurity
Implementation Manual
www.cattle.ca

Educate, Plan, Record

- Ensure that personnel understand how and why biosecurity is applied on their operation.
- Develop, document, and maintain a biosecurity plan that is specific to the needs of the operation.
- Ensure that personnel know how to respond to the range of animal health situations typical to the operation.
- Ensure that personnel know how to respond to an unusual animal health situation.
- Maintain ongoing records for animal health management (see VBP on-farm food safety sample records)

The VBP+ program requirements were developed using existing producer resources, including:

Code of Practice for the Care and Handling of Beef Cattle and the Canadian Beef Cattle On-Farm Biosecurity Implementation Manual





ENVIRONMENTAL STEWARDSHIP

Many beef cattle operations and feedyards have completed an Environmental Farm Plan to manage potential risk and can describe many practices beneficial to their local ecosystem. Optimally managed cattle grazing systems improve soil conditions including building soil capacity to filter and hold water, build organic matter and enhance growth of beneficial microorganisms. Grasslands sequester carbon and also provide habitat for over 1,000 species of plants, animals and insects.

Many practices have evolved to assist building soil capacity and include feedgrains grown under minimum till and other conservation harvesting practices. In addition to these agronomic practices, confined feeding operations are subject to provincial regulations that cover manure or nutrient management, water run-off control, deadstock management and building requirements to manage and protect water resources.

Many feedlots have worked with their local county and municipal authorities to ensure local conditions are met or exceeded.

The following summarizes practice areas to manage risk and enhance beef cattle production's beneficial effect on natural resources and inter-dependent practices. Beef cattle operations are expected to manage risks to soil, water and air in a responsible manner and ensure staff and family members understand tasks relating to these practices. In addition it is expected that operations meet applicable local, municipal, provincial and federal environmental regulatory requirements.

A. LAND MANAGEMENT AND CONSERVATION

Regional environmental farm plans provide an excellent base for land and water stewardship, and the VBP Plus audit will review practices with operations on how risks and benefits are managed. In addition some beef cattle operations have participated in a local watershed or group environmental plan to assist regional management of soil and water resources. Producers utilize many grazing management techniques, participate in training and follow expert studies/research to enhance land use, conservation and management of resources.

Grazing Management

Beef cattle operations match cattle and grazing land needs as appropriate to local conditions, which includes

past grazing effects and weather conditions. A system of pasture rotations provide the underlying management for optimum opportunity for plant re-growth. Tools may include cross-fencing, intensive rotational grazing, pasture or rangeland assessment, and fragile lands left in natural grassland or re-seeded to tame grass and forages. Grazing management training and accessing crop experts for optimum rotations are all practices that contribute to efficiency of use.

Managing grazing land during drought or high rainfall/flood conditions can demand further refinement in practices. While specific to local conditions, practices may include longer rest periods, tiling and other erosion management action. Shelterbelts and supplementary feeding may assist as well, so that some consideration is given to avoid further damage to grazing areas and lands.

In addition producers are considering and trying innovative action that further contribute to carbon sequestration, for example woodlands and permanent cover.

In some regions there is the potential for the spread of invasive plants that can impede the growth of grass and forages, reduce riparian area utility, or choke out the multi-species to the point that grazing opportunities are reduced. Producers need to be aware of potential invasive plant species and manage as appropriate to avoid introduction or work against the spread of these species. This may include specific herbicide use, insects or multi-species grazing, and careful selection of hay or forage seed brought to the operation to avoid further spread.

Cattle and Riparian Areas

In some regions or locales there are required or highly recommended practices to limit access to streambanks or flowing water by cattle. This may be to protect water resources and limit influence of manure on marine life or downstream users. Producers must be familiar with regional and provincial requirements as it applies to protection of riparian areas. The goal is to protect the water resource and surrounding riparian area against potential run-off or erosion that could unduly affect the water resource.

Beef cattle operations may fence off or otherwise limit access to water that runs into a watershed. This could include off-site watering, vegetative ground cover, buffer strips, berms, gravel ramp crossings, and other practices. An operation's practices depend on local conditions, depth to groundwater and applicable regulatory requirements.

Wintering Grounds for Cow/Calf Operations

Many beef cattle operations have moved to wintering outside of the traditional winter corrals to reduce the need to clean pens and reduce diesel consumption. This results in moving manure grounds to benefit the soil, pasture and crop lands. Producers need to consider the build-up of too much manure and rotate wintering grounds as necessary. This may include the use of temporary fencing, windbreak panels, bale grazing and other practices to move bedding grounds around a pasture(s). In some provinces or regions wintering grounds are not permitted near water bodies and operations are expected to meet these requirements. Actions taken should not negatively affect water and soil resources.



In warmer regions where high rainfall and high water tables exist, cattle are confined to barns and/or a confined yard during winter months to avoid damage to pasture and land via compaction.

Wildlife Habitat

Many of Canada's grasslands provide ample habitat for wild mammals, reptiles, birds and insects. Practices that enhance grazing, soil health, riparian areas and associated beneficial practices at an individual operation facilitate habitat for wildlife. Healthy grasslands as per discussion earlier in this chapter contribute to benefits for wildlife. A beef cattle operation particularly with grazing lands and natural water bodies, offers feeding opportunity for many kinds of wildlife and growth of a diversity of plant species. Wildlife and cattle regularly inter-graze including species of ungulates, raptors, rare birds, migratory animals, reptiles and unique plant life. In addition there may be specific species-at-risk practices undertaken within overall land management.

On occasion wildlife may over-populate and actions are required to mitigate so that over-grazing is managed. Operations are expected to utilize actions that limit over-kill and are acceptable to provincial wildlife management approaches and regulations. Many producers work with wildlife specialists to ensure a multi-faceted approach. Mitigation action should not unduly affect other wildlife or water resources.



Deadstock

Deadstock is disposed of in a manner that avoids leaching into water bodies as per provincial regulations. Acceptable methods may include burial, incineration, composting, or controlled scavenging but varies by region.

Confined cattle feeding operations are required to meet provincial regulatory requirements for disposal, and manage burial sites or composting with separation distances from water as per each province. Rendering and deadstock pick-up may be available in some regions.

PROGRAM REQUIREMENTS

Deadstock is disposed of in a manner that avoids leaching into water bodies.

Manure Storage and Use

Manure is stored and used in a manner that benefits the soil and manages against excessive leaching of nutrients into water bodies and groundwater.

Feedyards or confined feeding operations are designed and maintained as per provincial regulation via specific licensing or permits. This includes design and management of manure for optimum protection from run-off and drainage into water resources, and may include berms, sloping of pens, catch ponds and other design practices. Manure is stored in a manner that also protects against leaching into groundwater, according to local and provincial regulation. Feedyards are expected to maintain provincial permits for practices related to intensive livestock operations.

Manure and/or nutrient management plans include use of manure that is beneficial to soil and cropping enterprises. This includes timing, method of incorporation into land, amount, consideration for sloping, soil type, set-back distances from water and adjustments as per other local consideration.

PROGRAM REQUIREMENTS

Manure is stored and used in a manner that benefits the soil and manages against excessive leaching of nutrients into water bodies and groundwater.

Annual Crops and Feedgrains

Crop production may include crops for feed usage and those crops salvaged for feed during drought or flood conditions. Agronomic practices include application of nutrients according to crop and soil need, and managed in a manner that nutrients do not leach into water bodies. Minimum till or other soil conservation practices assist with building soil capacity. This may include use of no-till, crop rotations, harvest residue management, forage rotations and use of soil additives. In addition other practices identified within an Environmental Farm Plan assist in managing risks to soil or water.

In many regions pesticide applicators take specific training to ensure appropriate practices are followed.

Irrigation water is managed according to local requirements and efficient practices are employed wherever possible. Water for irrigation is sourced and used according to municipal and provincial requirements.



B. STORAGE AND DISPOSAL OF PETROLEUM PRODUCTS, HERBICIDES AND PESTICIDES

This refers to the storage, use and disposal of petrochemicals used in equipment operations, herbicides and pesticides, fuel, lubricants and solvents. Beef cattle operations are expected to store, use and dispose of these products and material in a manner that does not contaminate soil or water.

- Storage of petrochemicals, fertilizer, herbicides, treated seed and cropping chemicals may be subject to municipal and provincial regulations including management of run-off from storage. Practices may include separation, use of double-walled fuel storage, cement pads and berms to assist against leakage into water bodies.
- Producers also dispose of containers, old batteries, ag plastics and other refuse as per local availability of disposal sites and as regional refuse collection programs are available. Some material is recycled and used for other purposes at the operation, or as per the operation's environmental farm plan.
- Disposal sites and other refuse on farm is dealt with as appropriate.

Chemical spills and other emergencies - knowing what to do

During normal operations there is potential for leakage of fluids from equipment in farm shops and yards. Beef cattle operations are expected to know how to handle unwanted spills and have material available to clean up or manage as appropriate. This may include absorbent pads or material such as cat litter, dirt, sawdust, sand or other material.

Protective gear is available for use by family members or employees, and people know what to do as appropriate. Fire extinguishers, first aid kits, and an emergency contact list helps prepare for this action. In addition gear such as safety boots, protective head gear or outerwear is available where needed. People know what to do and/or who to call for help when needed.

Seeking advice when need to.

On occasion there may be practices of others that can affect a local watershed or potentially add unwanted substance to air or soil near the cattle operation. While this may be highly unusual, there is potential for a possible concerning incident to affect agriculture production in a local region. It may be necessary to contact a local expert or others outside the region to carefully investigate. This "duty to report" is on a case-by-case basis. It should be considered to protect land, wildlife, livestock and water resources.

PROGRAM REQUIREMENTS

Beef cattle operations are expected to store, use and dispose of these products and material in a manner that does not contaminate soil or water.

Beef cattle operations are expected to know how to handle unwanted spills and have material available to clean up or manage as appropriate.



C. INNOVATION: ENERGY EFFICIENT PRACTICES AND PRODUCTION EFFICIENCIES



The use of alternative energy sources and practices that increase energy efficiency use is employed at many beef cattle operations. This may include solar or wind power devices, energy efficient heating and lighting, fuel saving tools or practices, recycling water, and other innovations. Re-use, reduce and recycle is important to all practices.

In addition improving production efficiencies through effective combination of beef cattle genetics, feedyard practices that reduce days on feed, and use of other tools that increase production are employed. Beef cattle operations will be asked to describe these types of practices that assist production efficiency. New research may provide further actions that can be used to improve carbon sequestration and greenhouse gas mitigation.

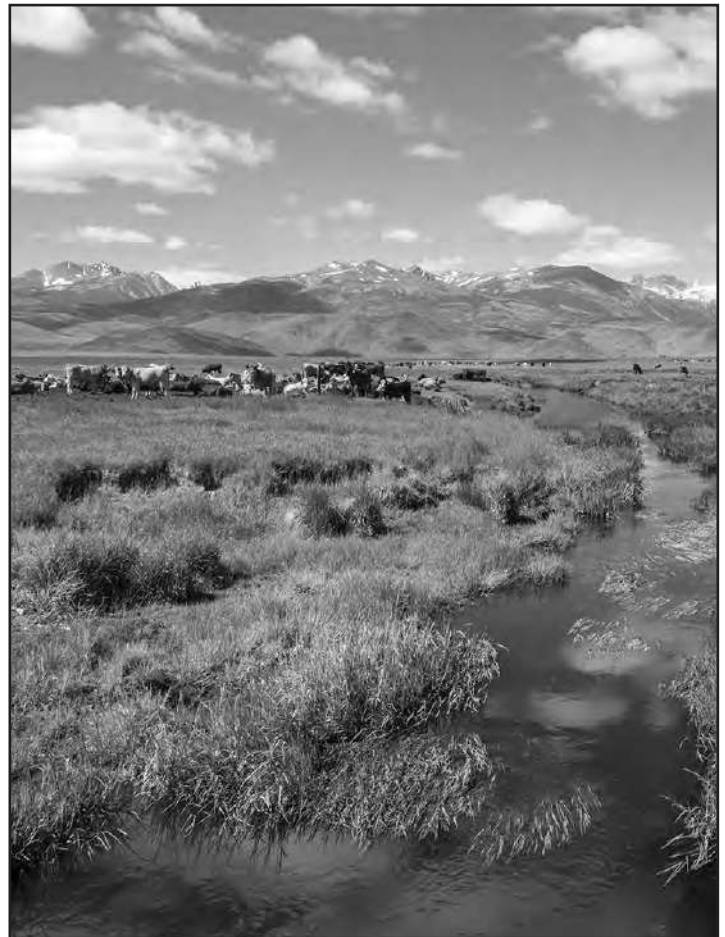
D. MANAGING AIR QUALITY

Confined cattle operations during dry months or heavy traffic season may manage against dust by periodic application of materials such as calcide or water. While not a particular environmental risk, this assists avoiding nuisance complaints and potentially improves working conditions for employees.

Burning of crop residue may be allowed in some areas, and applicable burn permits or notification is expected as per municipal bylaws. Protective gear is provided for employees as necessary.

E. OTHER

Management of water wells includes the consideration of potential leakage into local groundwater via well heads, and may require capping or sealing of abandoned wells. As per the provincial environmental farm plan, wells are managed to avoid potential contamination wherever possible. Some cattle producers also protect existing wells with fencing or other methods to avoid inadvertent damage to the well head and resultant draining of unwanted material into the water well.





Food Safety Producer Manual

Canadian Cattlemen's Association (CCA)



Version 7.8

Canada's beef on-farm food safety program under



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“Agriculture and Agri-Food Canada (AAFC) is pleased to participate in the production of this publication. AAFC is committed to working with our industry partners to increase public awareness of the importance of the agri-food industry to Canada. Opinions expressed in this document are those of (organization) and not necessarily the Department’s.”

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1. Introduction

Welcome to Canada's beef on-farm food safety program – Verified Beef Production (VBP).

The VBP program evolved from the original *Quality Starts Here* ✓ program to focus on food safety. It is geared to complement food safety programs in meat processing plants and at retail, to manage food safety risks across the food chain.

This Producer Manual has been built around the concept of proactive management regarding potential food safety hazards. The international food safety standard called “HACCP” (pronounced haa-sip) has been adjusted to apply to beef cattle operations. Technical aspects of the program have been reviewed and recognized as sound by the Canadian Food Inspection Agency.

Many of the practices in this manual are designed to complement what goes on in beef cattle operations across the country – and perhaps provide a few new ideas to improve the care of beef cattle.

This is a voluntary program, so producers can choose to implement the practices, or go the next step which is an on-farm audit to prove they are meeting program requirements.

Beef cattle operators continue to acknowledge their role in responsible use of animal health products, and this program provides the opportunity to demonstrate due diligence to the world.

This program manual replaces the former Beef Cattle Producers Reference Guide version 6.3 dated November 25 2004, as part of continual improvement to the VBP program.

2. Standard Operating Procedures (SOPs)

Standard Operating Procedures (SOPs) in the Verified Beef Production program are designed to reduce or eliminate the possibility of a food safety concern on a beef cattle operation. They are a set of *Must Do* requirements and recommended procedures to help reduce the chance of a hazard, along with a record keeping component to demonstrate what was done.

The SOPs in this program are focused on the two potential hazards of primary concern – possible chemical residue from animal health products and possible broken needle fragment in live cattle.

SOPs are provided for you in this manual, and they are focused on use of animal health products, medicated feed or water, control of pesticides, and cattle shipping procedures. There are five SOPs:

- SOP 1 – Animal Health Management
- SOP 2 - Feed and Water: Medicated and Non-Ruminant Feed
- SOP 3 – Cattle Shipping
- SOP 4 – Pesticide Control and Manure
- SOP 5 – Training and Communication

Each SOP has a **Must Do** component outlined as **grey shaded**, and recommended procedures because not all are applicable to every operation. The recommended procedures are designed to

support your efforts in this area, and you should choose to apply those which make sense on your beef cattle operation. Each SOP has specific information which needs to be recorded so you can provide proof to an auditor and anyone else that you have managed program requirements satisfactorily. You can use the sample records provided or integrate existing records with information requirements.

The practices which are not shaded in grey are recommended practices that partially relate to food safety, or can help you avoid a potential hazard. Please review these and choose to follow those which are applicable to your operation. While many of these are already standard practices, communicating the importance of following these types of procedures will ensure consistency among *all* who do this work on the beef cattle operation. Most errors are inadvertent, or unintended, and often discussion on the correct actions goes a long way to avoiding potential problems and improving consistency. An auditor can interview persons doing these activities to determine which ones are routine on your beef cattle operation.

Many of the recommended practices also improve product efficacy (products work better) or intended results.

When errors occur

Most producers or feedlot operators may go a lifetime without experiencing a drug residue or a suspected broken needle in an animal. Because food safety programs are “anticipating” in nature, it is important there are some procedures in place to address potential problems regarding its *Must Do* (grey shaded) requirements. In HACCP-based on-farm food safety programs, these potential problems are known as a *deviation*.

The secondary question would then be “how would you fix it?” – which is known as a *corrective action*. It’s essentially the answer to the question “what would you do if something goes wrong?”

If something goes wrong, consider:

1. What can be done to immediately correct the problem
2. Who to talk to and record their advice/date it
3. If problem can’t be corrected, what can be done or who should be notified
4. What to do so the error doesn’t occur again
5. Need a record of action(s) taken – could be on a current form used in your cattle operation

Some examples of where this would apply:

- Wrong medication to animals or wrong medicated feed
- Incorrect dose or error in following label direction
- Broken needle
- Positive drug residue found in slaughter cattle

When addressing problems or errors that occur with the *Must Do* requirements (grey shaded areas in this manual), record what was done and how it was corrected. Some suggestions are outlined for you in the “If something goes wrong” section for each SOP. One can write down what was done on a current record or on a separate sheet, whichever is simplest for you.

What is the relationship between the VBP Program and government regulations?

While an audit will not assess compliance to any provincial, municipal or federal regulation governing practices on the farm, it is important to continue to comply with regulations. The desired

outcome from the perspective of the VBP program is avoidance of potential contamination of cattle, and feed/water for cattle. This includes disposal of animal health products, herbicides, and other chemicals.

There is potential for an additional farm audit to take place should a major food safety-related contamination occur. This is to ensure the integrity of the program and the adjustment of applicable SOPs so that the contamination doesn't happen again. We anticipate this to be a *very rare* event, but please understand that the VBP program may want to re-audit should it be deemed necessary.

Governments continue to maintain the option of on-farm inspections (example: medicated feed or non-ruminant feeds) independent of this program.

Auditors will not review provincial regulatory requirements but will observe any unusual circumstance that may relate to food safety on the beef cattle operation.

3. What do I need to do?

One person from your beef cattle operation will need to complete training to understand the requirements for the Verified Beef Production program. Then those persons undertaking the tasks for each SOP will need to understand the Must Do and recommended procedures outlined in this manual, so effective communication must take place. These persons will need to understand enough of the SOPs so that they understand normal procedures, what to do if something goes wrong, and what information to record. People will also need to know the difference between *Must Do's* and recommended practices for the VBP program.

The *Must Do's* are the minimum requirements of the Verified Beef Production program, and are shaded grey in this Producer Manual. These *Must Do's* are designed to help avoid a potential food safety hazard, or deal with it before it becomes unmanageable or a problem to the next customer along the beef chain. Pay particular attention to the *Must Do's* as they are the practices which will be audited by a qualified 3rd party auditor who understands beef cattle production.

Record Keeping

All records relating to Must Do's (grey shaded) must be kept for 2 years. Some records or documents need to be accessible to those who use the information. Well-organized records will assist in preparation for any on-farm audits and for annual self-declarations or records assessments.

The VBP program requires the following records and information:

- Animal treatment and processing records for all animal health products used in the beef cattle operation.
- Date on records indicating withdrawal times are checked prior to shipping cattle to slaughter.
- If cattle are not shipped to slaughter, and shipped before withdrawal times are met, a record containing information on the date when treatment or processing information was communicated to the next buyer.
- Record of all broken needles and evidence that information was communicated to the next buyer. This is especially important if the animal was sold or shipped to slaughter.
- Medicated feed records including amount fed and target cattle (i.e. group identification). This includes medicated water.
- Written veterinary prescriptions for all extra-label use of animal health products and feed/water medications.

- Record for herbicide or pesticide use on pastures and hay fields on your operation, so that “safe to graze” dates were observed.
- Information indicating verification took place regarding “Must Do” VBP requirements. (see section 9 for more detail). This can be someone from your operation.

Consider having back-up copies of important records in case of misplacement or unexpected events, such as computer failure, fire or damage by animals (dogs and curious cattle).

On-Farm Audits

Although it may sound ominous, an on-farm audit is essentially a check on how a beef cattle operation is applying the VBP program. It is a review of records and observations - used to determine if a beef cattle operation is meeting the minimum requirements of the program. It is done by a person with both a background in beef cattle production, and training in audit procedures. It is an objective “outside eye” on food-safety related practices ... relating to the Must Do requirements of the program.

An audit of a beef cattle operation provides authenticity for both the VBP program and for beef producers or feedlot owners. An audit is required by the Canadian Food Inspection Agency in order to receive program recognition.

Beef cattle operations will first undergo what is called a full audit, which is a review of all the “Must Do” SOPs as part of certification requirements. Upon successful completion of the audit and any possible corrective actions, a producer will become certified with the VBP program.

To maintain certification, a producer or feedlot operation submits either a sample of records or a self-declaration checklist each year to the provincial delivery agent. The VBP coordinator will review and provide an indication that program requirements have been met. The sequence occurs once annually, and then in the sixth year, a full audit is required and the cycle continues.

VBP Audit Pattern:

F – R – S – R – S

each year over 5 years, then repeat

F = full on-farm audit
R = records assessment
S = self-declaration

► **If meeting requirements in exemplary manner, can extend the cycle by 1 year.**

What do I need to do to prepare for an on-farm audit?

After completing VBP program training, cow/calf producers must have at minimum six months of records or in the case of feedlots, three months of records. These records need to be complete according to the minimum program requirements too, so ask for a checklist from your provincial VBP coordinator.

Once ready, call your provincial coordinator who will assign an auditor. The auditor will then contact you to arrange for a suitable time/day. The provincial coordinator will take steps to address possible conflict of interest between a producer and an auditor. Potential conflict of interest includes current or former business arrangements, family ties, or close contact as friends etc. If unsure, please talk to the coordinator as we want all involved to make objective observations and preserve the integrity of the program.

Look at the audit as a learning opportunity. It is not an inspection - it's a review of program Must Do's and recommended practices.

Please have someone present to guide the auditor around the premises, and let family members and/or staff know that the auditor may ask them questions regarding their role within the Standard Operating Procedures (SOPs). Records relating to the Standard Operating Procedures will also need to be available.

4. SOP 1 – Animal Health Management

The goal of procedures in this SOP is to minimize the risk of drug residues, antibiotic resistant bacteria and broken needles in cattle.

Drug residues and broken needles are not “removable” after cattle leave the premises, so producers must pay particular attention to these potential risks within their operations.

If cattle are exposed to chemicals such as those found at garbage sites, (for example lead batteries, used pesticide equipment/containers, treated seed) contact a veterinarian for appropriate action. Sudden and unexplained deaths may be due to poisoning. An investigation should take place, so that a food safety incident doesn't occur when salvaging survivor animals.

Animal Identification - linking treated cattle with their withdrawal times

The purpose is to clearly link the animal with its treatment or vaccination record for the duration of the withdrawal period. The VBP program allows for individual animal identification and group/pen identification in the case of group treatments.

In the case of group treatments when animals are not individually identified, all cattle in the group must be held for the required period for the drug product with the longest withdrawal time. If cattle are removed from the treatment group, they must be individually identified and held for the longest withdrawal period for that group.

If marking cattle with spray paint or crayons, check the product label to ensure it is approved for use in livestock.

a) Storing Animal Health Products

- Store animal health products according to label directions. Improper storage could lead to altered withdrawal times and chemical residues in cattle, or reduce product effectiveness.
- Keep storage areas organized to reduce the chances of people using improper medications, and ensure labels are clearly readable. If labels are not readable, post a copy of the product label insert (extra paper from product boxes or a printout) where people can access them.
- If receiving or storing products intended for other species of livestock, store on a separate shelf or in a manner which clearly indicates these products are not for use in beef cattle. This is to avoid potential mix-ups and unintentional use.
- Discard drugs that have expired or have been accidentally frozen or exposed to excess heat.
- Dispose of used and outdated animal health products in a manner that does not contaminate cattle feed or water.

b) Using Animal Health Products

This refers to the use of injectable, oral, implanted or topical products used to assist the treatment of diseases, conditions or otherwise assist in the health of beef cattle.

All pharmaceutical products registered in Canada have a DIN number on the packaging. Health Canada regulations prohibit the use of some drugs in food-producing animals. This prohibition may not be stated on products originating in other countries.

To ensure that products are approved for use in beef cattle, look for the wording “for livestock”, “veterinary use”, “for food-producing animals” or beef cattle recommendations on the label.

- Use all products according to label directions, or in the case of extra-label use, according to a written veterinary prescription. This means that all cattle shipped to slaughter have met the required withdrawal times prior to shipping to avoid a potential residue.
- Ensure family members, staff or volunteer help working on your beef cattle operation understand how products are used and are familiar with standard procedures on your operation.
- Record all individual animal or group treatments on a permanent record which includes: the date(s), animal(s) identification, product used, dosage, route of administration (eg. Sub-Q or IM), withdrawal time, and initials or signature of person doing the task.
- Securely restrain cattle to avoid potential bent or broken needles. Use only sharp needles (not dull or burred), and do not straighten needles for re-use. This is to avoid the potential for breaking a needle and leaving a fragment in the hide or muscle.
- Make sure syringes and other equipment deliver the intended amount of product, and are in good working order.
- Visually inspect needles after use to ensure they are intact on the syringe and not bent.
- Use appropriate needle length and size relating to product viscosity and route of injection. This is to help avoid against bent or broken needles.
- Follow a routine procedure to clean needles, syringes and other animal health equipment to avoid cross-contamination of drugs and other pharmaceuticals.
- Discard used needles into a sharps container and in a manner that does not present a risk to cattle, other animals and people.
- Injectable products are given in the neck, and the subcutaneous (sub-Q or SC) method is preferred when identified on the product label.
- The use of “detectable” needles which do not break as easily is recommended.

If something goes wrong:

- If a broken needle occurs, identify the suspect animal and record the incidence on a permanent record. If the animal is being sold, the next owner must be informed of the broken needle in the specific animal. Alternatively the animal may be euthanized or slaughtered for own use.
- If animals are treated with the wrong product or dosage, identify the animal, record the incidence, contact a veterinarian, and record actions taken. This includes actions to avoid a potential residue and what was done to avoid a repeat occurrence of the identified error. For example, actions could include holding cattle for a longer period, or in the case of slaughter cattle – contacting the slaughter plant immediately.

c) Extra-label use and withdrawal times

One of the important components of the VBP program is to follow label directions for pharmaceutical products, or in the case of extra-label use, an up-to-date written veterinary prescription. This helps to ensure responsible use of veterinary products, manage against potential antibiotic-resistant bacteria, and provides a scientifically sound estimate of withdrawal time.

Extra-label use - is any use of a product that is not indicated on the label, including: i) use in species or for indications (disease/other conditions) not listed on the label; ii) use at dosage levels different from those stated on the label; iii) use of a different route, frequency, duration or timing of treatment; iv) failure to observe the stated withdrawal period. This is also referred to as “off-label”.

Withdrawal period - is the minimum time from the last treatment of a pharmaceutical product, to the earliest time when meat from beef cattle should be consumed. Essentially it is the time required before cattle are “safe to ship” and is usually measured in days.

Prescription – is a written order for a medication stating amount of drug or mixture of drugs for specific cattle or set of conditions, from a licensed veterinarian with whom you have a proper veterinarian/client/patient relationship. The VBP program requires that the veterinary prescription includes at least the following:

- Veterinarian and clinic
- Date
- Client
- Patient identification or indication for use
- Name of product
- Dosage, frequency, route and duration of treatment
- Withdrawal for meat
- Special warnings (special storage, human safety warnings, etc)

In order to assist those working on the beef cattle operation:

- **Keep a copy of any written veterinary prescriptions used within the last two years.** This proves you are using any drugs extra-label with veterinary advice and/or supervision.
- A copy of the label inserts (found in product boxes) or printout from a Compendium of Veterinary Products is available for reference to those needing the information and using the products. This helps to ensure products are used according to label directions.

d) **Cull Cows and Bulls**

Cull cattle present a potential food safety concern due to the use of animal health products in their lifetime and particularly within the last two months prior to shipping. In many cases, cattle become culls at calving time due to problems which may involve drug treatments. In the fall season, group treatments with parasiticides may also be a potential hazard when cows are culled later on (eg. pregnancy checked), and may not have met their withdrawal times.

Withdrawal times can be inadvertently forgotten, so pay particular attention when shipping cull cows or cull bulls. Even if not intended for slaughter, keep in mind that the next buyer may have an incidence where emergency slaughter is required and unknowingly face a chemical residue incidence.

Also, note the weight ranges for shipped slaughter cows if applicable - in order to more accurately estimate cattle weights when calculating dosage rates for animal health products.

e) **Purchased Cattle**

For cattle coming on to the beef cattle operation, it is advisable to find out if they were given any animal health products and have not met their withdrawal times. This is in case of emergency slaughter or sale of the cattle, before they have been held for a sufficient time to meet their withdrawal times. This is particularly important when products have been used with long withdrawal times (eg. 60 days).

If you are feeding the cattle for less than 60 days and they are to be sold for slaughter, make every attempt to clarify what they have been treated with when purchasing or upon arrival at your beef cattle operation. If in doubt, hold them for 60 days to avoid potential chemical residues.

f) **Hormonal Implants**

While hormonal implants are approved with zero withdrawal times, producers are required to record usage to demonstrate proper procedure. This includes following label directions for the size and type of cattle being processed.

5. SOP 2 – Feed and Water: Medicated and Non-Ruminant Feed

Medications that can be used in feed are listed in the *Compendium of Medicating Ingredients Brochure* (MIB) published by the Canadian Food Inspection Agency. A veterinary feed prescription is required whenever dosages or usages differ from those described in the MIB.

A nutritionist is an effective resource to assist in developing rations and feeding protocols.

Managing the mixing of medicated feed takes planning and equipment that function properly. Keep feed mixing and covered storage areas tidy to help manage fecal contamination from birds, rodents and other animals. When receiving feed or hay, take notice of anything unusual and if in doubt, ask about any chemical applications that could have occurred prior to harvesting the feed or bedding material.

- Copies of written and signed veterinary feed prescriptions are available for all extra-label use of feed or water medications. Keep the copies for a minimum of two years.
- When using wood chips or wood shavings for bedding, written or verbal assurance is recorded that treated wood or other chemical preservatives were not used.

a) Receiving and Storing Medicated Feed

- Feed delivery person is informed of unloading requirements for medicated feed or ingredients, including intended storage area or bin. Written evidence of unloading instructions, for example on invoice, is available.
- Delivery of medicating ingredients and medicated feed is cross-checked with ration or prescription so that correct products are received.
- Medicated ingredients and medicated feed have a separate and clearly labeled storage area or storage bins to prevent cross-contamination of non-medicated feedstuffs.
- Augers or other feed handling equipment used for medicated feed are flushed or cleaned after use, to avoid cross-contamination of non-medicated feed.

b) Mixing of Medicated Feed or Water

- Scales used must be tested for accuracy at least once per year, and are suitable to the range of weights of feed to be mixed.
- Those persons undertaking mixing and distribution of medicated feed understand standard procedures and type of information to record.
- Medications are mixed according to label directions and documented ration. Actual amounts mixed are recorded.
- If adding ingredients by hand, a system is in place to accurately determine the weight or volume of the feed mix to ensure accuracy with intended dosage levels.
- A system is in place to check on accuracy of feed mixing. Note this is subject to pending Medicated Feed regulations.
- A system is in place, for example flushing and/or sequencing rations, to avoid consumption of medicated feed by unintended cattle. This is especially important for cattle who are close to slaughter.
- Reprocessed or flushed feed is used or disposed in a manner to prevent contamination of other feedstuffs.

c) Feeding of Medicated Feed or Water

- Cattle pens are clearly identified to ensure medicated feed rations are delivered to the right cattle.
- If a water line is used to deliver medication, it is calibrated and flushed after use to avoid carry-over of drug residue. Note this is subject to pending Medicated Feed regulations.
- Medicated feed or water is fed according to label directions or written veterinary prescription.
- Actual amount of medicated feed fed is recorded and includes: ration, medicated ingredient or product, amount fed, date, pen identification and initials of person doing feeding. This applies to medicated feed or water with a specified withdrawal time period.
- Equipment used for medicated feed or water is cleaned, flushed or a system of sequencing is used to avoid cross-contamination of non-medicated feed. This includes portable water troughs, which are cleaned or removed when usage is complete.
- Staff or family members understand feeding procedures and what to do if an error occurs in feed delivery to cattle pens.

If something goes wrong:

- If feed is mixed with the incorrect amount of medication or wrong product, record the incidence, consult a veterinarian and record actions taken. This includes actions taken to avoid a potential chemical residue and what was done to avoid a repeat occurrence of the identified error. For example, actions could also include consultation with a nutritionist, holding cattle for a longer period, or in the case of feeding slaughter cattle – contacting the slaughter plant immediately.
- If medicated rations or water are fed to the wrong cattle, record the incidence and actions taken. See examples above.

d) Handling Non-Ruminant Feed

This includes feed for poultry, horses, swine, and pets which may contain ruminant by-products. The potential risk is the unintended feeding of ruminant material to cattle, which may result in the BSE prion being ingested by beef cattle. Make sure commercially-available colostrum and milk replacer used is approved for cattle as indicated on the label or invoice. A Prohibited Feed Affidavit from commercial feed suppliers for feed containing protein supplements can emphasize the importance of avoiding prohibited feed materials in cattle feed.

The VBP program requires:

- Feeds containing prohibited material (ruminant by-products) are not fed to beef cattle.
- All non-ruminant feed is stored separately and clearly labeled to avoid inadvertent feeding to cattle, or cross-contamination with ruminant feeds. This includes bulk and bagged feed.
- Separate equipment is used for receiving (ie. auger), mixing and feeding non-ruminant feed to prevent cross-contamination of cattle feed. If common equipment is used, contact the CFIA for appropriate procedures to avoid potential contamination

If something goes wrong:

- If non-ruminant feed is inadvertently fed, contact the Canadian Food Inspection Agency for appropriate action. Check to see if the feed includes protein of ruminant origin. Record the incidence, type of feed or ration, and all actions taken.

6. SOP 3 – Cattle Shipping

The VBP requirements in this section are designed to assist you to ship cattle to slaughter without drug residues or unknown broken needles.

Ensure that all family members/staff or volunteers that help with shipping cattle understand your procedures and what records to check prior to loading cattle.

This includes:



- A records check for all drug withdrawal requirements and broken needles is completed before cattle are shipped to slaughter. This includes processing/treating records and all records where broken needles may be recorded.

- The check for drug withdrawal requirements is identified in your records, with date.
- If cattle are being shipped or sold other than directly to slaughter, and they have not met their drug withdrawal times, then the next owner is informed of the products and required withdrawal time(s) for those particular cattle.
- Remember that cattle sold and not intended for slaughter may sometimes end up in emergency slaughter such as a broken leg in transit or upon arrival.
- If cattle contain a broken needle, next owner is informed including the identification of the animal. Alternatively, the individual animal is euthanized or slaughtered for own use.
- Cattle liners and trailers used to haul cattle are checked prior to loading to avoid possible chemical contamination from previous cargo, as applicable.



If something goes wrong:

- If cattle are inadvertently shipped without meeting withdrawal times or suspected broken needle, next owner or slaughter plant is informed and this contact date/information is recorded.
- If prior to shipping it is discovered that withdrawals have not been met, slaughter cattle are held for the required withdrawal time period.
- Treatment records and/or shipping activities are reviewed so that error is not repeated.
- Copies of drug residue information from processing and packing plant are kept on file, for any cattle shipped to slaughter and identified with a chemical residue.

7. SOP 4 – Pesticide Control and Manure

Cattle can sometimes be inadvertently exposed to chemicals through the use of herbicides on feedgrain crops, forages or directly to hay fields or pastures. For example, this can occur if producers spray electric fencelines to control forage/weed growth. Or during a drought specialty crops are salvaged for feed and may have been sprayed with a desiccant prior to swathing or baling.

Other situations include spraying for fly control in a feedlot where possible contamination to water and feedbunks may occur.

Producers are required to manage herbicides or general farm pesticides in a manner that avoids contamination of feed, water or directly to the cattle.

Pesticide Control

- Herbicides, pesticides, solvents and treated seed are stored to avoid contamination of cattle feed or water.
- Herbicides, pesticides, solvents and treated seed are used and disposed responsibly according to label directions and to reduce risk of contamination of cattle, water, feed, or animal health products.
- Herbicides and pesticides used on pasture or hay within the operation are applied according to label directions. Usage is recorded including date, product, location(s) used, initials or signature of applicator, and “safe to graze” or “days to harvest” time period.
- Records regarding herbicide and pesticide use on pasture are checked before cattle are allowed access to locations that have been sprayed.

If something goes wrong:

- If a potential cattle exposure has occurred, an expert (eg. veterinarian or toxicologist) is contacted for recommended procedures or actions. Actions taken are recorded.

Manure Removal in Pens

Manure and mud build-up on the hides of slaughter cattle is related to a biological hazard for the packing plant, the next customer in the beef chain. While difficult to control during certain times of the year, the following applies when cattle are destined for slaughter:

- Pens holding cattle destined for slaughter are subject to manure removal at least once annually to reduce tag (mud/manure) build-up on cattle hides.
- Be prepared to tell the auditor the date or month of manure removal, or if done more frequently, the normal routine for your operation.
- Runoff from manure storage areas is contained or redirected to prevent contamination of stored feed or water for cattle.
- Manure is disposed according to municipal or provincial regulations.
- If selling to a packing plant that provides tag scoring of hides, records are kept on file for review by beef cattle operation personnel.

8. SOP 5 – Training and Communication

Effective communication of standard procedures on a beef cattle operation means consistent results. Communicating SOPs and procedures to the people who need to know is important to success of the VBP program on your cattle operation.

- One person in the beef cattle operation has been trained in the Verified Beef Production program to become familiar with VBP requirements.
- Family members and/or staff in the beef cattle operation understand their respective tasks relating to SOPs and “Must Do” requirements of the Verified Beef Production program. This helps improve knowledge of how their actions may impact food safety.
- If a mistake occurs due to human error, communicate with the individual to ensure proper procedures are followed.
- Record keeping requirements are clearly communicated to family members and/or staff who are responsible for procedures requiring records and/or records check.
- Family members and/or staff in a feedlot understand the importance of using washroom facilities and do not use feedbunks or sites containing feed for cattle in lieu of staff facilities. Parasites and bacteria can be transferred from humans to cattle in this manner.
- Persons working on the beef cattle operation are prepared to answer questions on procedures they are responsible for, relating to “Must Do” requirements of the VBP program.

Documented Protocols

It is highly recommended that routine procedures be documented for use by persons on your beef cattle operation, which identify common ailments and the routine products used to treat them. This would include but is not limited to: vaccinations, diseases and common antibiotics used, parasite controls and mixing medicated ingredients in feed or water. This is especially important for clear communication if there are 2 or more persons who regularly undertake these procedures.

- These documented procedures are called a *Protocol*, and can be used as a reference for family members and/or staff. It can also be an effective training document.
- The *Processing and Treating Protocol* identifies actions should a broken needle occur or a needle fragment is potentially left in the muscle or hide of an animal.
- The *Processing and Treating Protocol* may also identify actions should an animal receive an unintended dosage or product or anything different from label directions. This would include who to contact, what to do, and instructions on where to record the actions.
- A *Medicated Feed and Water Mixing Protocol* is highly recommended to ensure proper mixing and use of feed medications. It should identify the sequence of activities needed to ensure medicated ingredients are successfully mixed throughout a ration or in water.
- All persons have access to written procedures including the beef cattle operation’s own *Processing and Treating Protocol* and *Medicated Feed and Water Mixing Protocol* if they are undertaking activity related to these procedures.

Your protocol should cover only the routine procedures when using animal health products or feed medications, and should be a simple and easy reference so that all may use it when needed.

A veterinarian is an excellent resource to assist in developing a *Processing and Treating Protocol*, as is a nutritionist when developing a *Medicated Feed and Water Mixing Protocol*.

9. Annual check on important procedures and records

Someone designated from your beef cattle operation reviews on an annual basis the “Must Do” VBP requirements - including drug treatment, medicated feed, and shipping records to ensure they are complete. Then they sign the record and date it, which is an annual monitoring that the beef cattle operation is up-to-date with the SOPs. This is known as *verification* and is essentially a once per year check with “additional eyes” that provide added confidence in the VBP program.

This verification process must be completed once annually and includes:

- Review of processing and treatment records for completeness.
- Review of records to provide evidence that a withdrawal time check was completed prior to shipping.
- Review of record containing any broken needles and evidence that information was provided to the next buyer.
- Written veterinary prescriptions if products are used in extra-label manner.
- Review of records for medicated feed or medicated water for completeness.
- Review of any errors relating to Must Do’s (grey shaded), and any information on actions taken to rectify the situation.
- The person doing the annual verification signs or initials, and dates as evidence that this verification took place.

APPENDIX

Appendix

A. Glossary of Terms

Compendium of Veterinary Products = a list of animal health products approved for use in Canada, which are acceptable for use as per label direction or veterinary prescription. A list can be found at www.verifiedbeefproductionplus.ca/animalhealth

1 cc = 1 ml

IM = intramuscular

SC = subcutaneous (under the skin or sub-Q)

IV = intravenous (into vein)

Topical = on top of the hide or skin

Flushing = after mixing medicated feed, this involves taking a known non-medicated ingredient and moving a quantity through the equipment to “flush” out any medicated feed that remains. Usually a feedgrain, at about 5-10% of the mixer capacity, is passed through the mixer or auger to help remove any medicated feed which may have been left in the equipment. The flushed material or “flush” is often included in the next ration which would contain the same medication for the same species. Or it can be disposed in a manner which will not contaminate cattle feed or in an area which the cattle do not have access to.

HACCP = a systematic approach to food safety accepted internationally. The Verified Beef Production program is based on the 7 principles of HACCP:

1. Identifying potential food safety hazards on a beef operation,
2. Identifying Standard Operating Procedures that can control the hazards on the beef operation,
3. Defining target levels or critical limits for the hazards,
4. Developing active monitoring procedures,
5. Determining corrective actions should problems occur,
6. Developing methods to verify that management practices are working, and
7. Record keeping to document practices.

Federally inspected plants are required to have a HACCP system in place, and the CFIA audits processing plants to ensure their systems are functioning properly. Retailers continue to further develop HACCP or HACCP-based systems.

MIB = Medicating Ingredients Brochure published by the Canadian Food Inspection Agency which lists the approved medications or medicating ingredients for use in livestock feed. Also known as CMIB, Compendium of Medicating Ingredients Brochure.

Must Do's = minimum requirements for the Verified Beef Production program, which are outlined as grey-shaded in this Producer Manual.

Prohibited feed = anything that is, or that contains any, protein that originated from a mammal, other than a porcine or an equine (hog or horse). It does not include milk, blood, gelatin, rendered animal fat or their products. Feed containing these materials, such as ruminant meat and bone meal, will have indications on the feed tag or invoice that states “*Do not feed to cattle, sheep, deer or other ruminant animals.*”

Sequencing = a planned series of feed delivery to pens to prevent the feeding of medicated feed to unintended cattle. This is predetermined schedule of mixing and feeding that may start with the higher levels of medications first and ending with low levels, flushing, then followed by non-medicated feed. The sequence is followed the next feeding time (or day), in the opposite manner with non-medications first. In the following feed period the reverse sequence is repeated. It is imperative that feed records are detailed enough to denote the last batch/ration and where in the sequence the medicated feed was processed and fed. Attention to this detail determines the likelihood of drug carryover and tissue residue.

SOPs = Standard Operating Procedures, which are a set of *Must Do* requirements and recommended procedures to help reduce the chance of a food safety hazard on the beef cattle operation.

Veterinarian/client/patient Relationship = a relationship between a veterinarian and livestock producer in which the veterinarian has assumed the responsibility for ensuring proper medical judgements regarding the health of the animals and the need for medical treatments. The producer has agreed to follow the instructions and/or protocols provided by the veterinarian. There is sufficient knowledge of the animal(s) by the vet to initiate a general or preliminary diagnosis of the medical condition by virtue of an examination of the animal(s), and/or by medically appropriate and timely visits to the premises. The practising vet is readily available for follow-up in case of adverse reactions or failure of the regimen of therapy.



This symbol designates the most critical areas under a producer's control influencing on-farm food safety. In HACCP language this is called a Critical Control Point (CCP). These are found in SOP 3 – Cattle Shipping.

Note: definitions for extra-label use, withdrawal period, and prescription are found in *SOP1 Animal Health Management* section c) on page 9 of this manual.

B. Sample Records

Animal Health Treatments – Individual Year: _____

<i>Date(s)</i>	<i>Animal ID</i>	<i>Reason for Treating</i>	<i>Product Used</i>	<i>Dose & Route</i>	<i>Withdrawal Time</i>	<i>Comments & Initials</i>

Shipping WD Check <u>Date</u> <u>Initials</u>	Shipping WD Check <u>Date</u> <u>Initials</u>	Shipping WD Check <u>Date</u> <u>Initials</u>	Shipping WD Check <u>Date</u> <u>Initials</u>
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SC = subcutaneous (under skin) IM = intramuscular O = oral Top = topical 1 ml = 1 cc
 Conduct visual check for needles after each injection. WD = withdrawal time

Pen or Herd Animal Health Treatments Year: _____

Date _____ **Group or Pen** _____ **Initials** _____

Animal Health Products:

Vaccination _____ Dose and Route _____ Withdrawal Time _____

Vaccination _____ Dose and Route _____ Withdrawal Time _____

Parasiticide _____ Dose and Route _____ Withdrawal Time _____

Antibiotic _____ Dose and Route _____ Withdrawal Time _____

Other _____ Dose and Route _____ Withdrawal Time _____

Implant _____ Other Procedures: castration dehorning _____

Shipping WD Check (date & initials): 1. _____ 2. _____ **Comments:**

Optional:

<i>Animal ID</i>	<i>Animal ID</i>	<i>Animal ID</i>	<i>Animal ID</i>	<i>Animal ID</i>

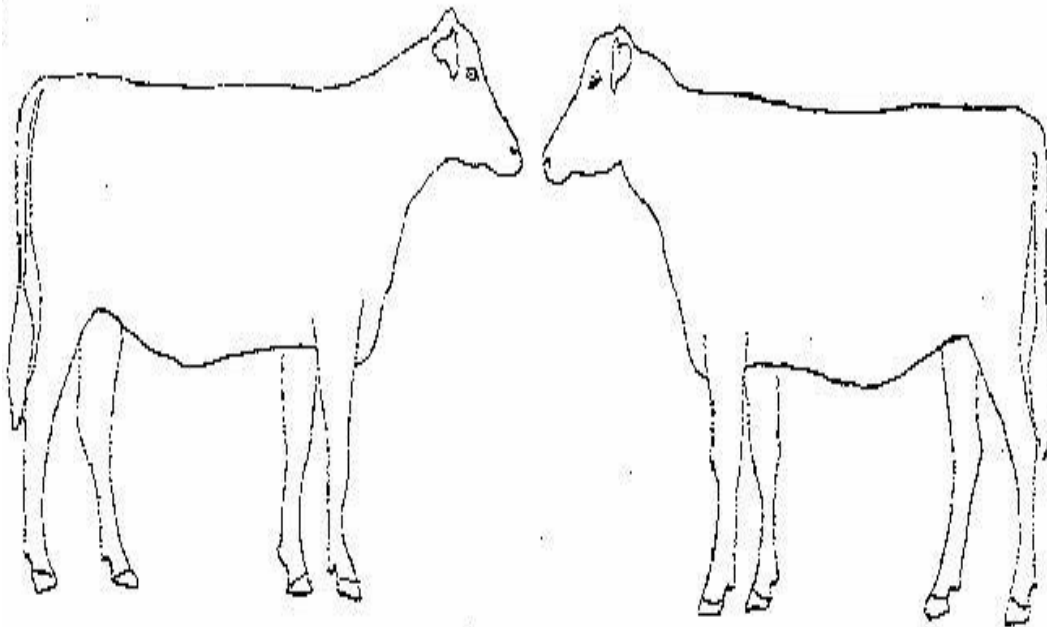
SC = subcutaneous (under skin) IM = intramuscular O = oral Top = topical 1 ml = 1 cc
Conduct visual check of needles after each injection. WD = withdrawal time

Record
Suspect Broken Needle

Farm Name or Owner: _____

Date of Injection: _____	Animal Identification: _____
Product Used: _____	Withdrawal Check at Shipping: _____
Describe how animal is permanently identified: _____ _____	
Disposal of Animal: _____ date: _____	
___ sold to slaughter plant ___ slaughtered for own use ___ died on farm	
___ other: _____	
Date information supplied to next owner/buyer: _____	
Who was contacted: _____	
Person supplying information: _____	
Information supplied by (check one or more):	
___ phone ___ fax ___ other: _____	

Location of broken needle fragment (please mark with an "X"):



Medicated Feed/ Medicated Water Record Year: _____

<i>Date(s)</i>	<i>Group or Pen</i>	<i>Medicated Ingredient</i>	<i>No. of Head per Pen or Group</i>	<i>Total Amount Fed to Group</i>	<i>Withdrawal Time</i>	<i>Comments & Initials (W = water)</i>

This applies to medicated ingredients with a specified withdrawal time period. Note a mixing record is required too. It is recommended, however, that the feeding of medications with a zero withdrawal time is recorded.

Sold – Purchased – Died RECORD Year: _____

Date	Identification Information			Incoming/ Disposal Information (✓)					Other Information	
	Animal ID	CCIA number or Individual	Pen ID	No. of Head	Purchase	Died or Euth	Sold or Shipped	Withdrawal check (initials)	Purchased From or Sold To	Comments

**Record of Herbicide or Pesticide Use
on Pasture or Hay**

Year: _____

<i>Date(s)</i>	<i>Field Identification or Location</i>	<i>Product Used and Rate</i>	<i>Amount Applied</i>	<i>Acreage</i>	<i>“Safe to Harvest” Time Period</i>	<i>Comments and Initials of Applicator</i>

Record required for lands owned or under control of the beef cattle operation for the current year.

C. Sample Dosage Calculations

Animal Health Product: dosage of 1 ml per 15 kg
(1 cc per 33 pounds)

<i>Animal Weight</i>	<i>Calculated Dose</i>	<i>Animal Weight</i>	<i>Calculated Dose</i>
100 pounds	3 cc	1250 pounds	38 cc
200 pounds	6 cc	1400 pounds	42 cc
400 pounds	12 cc	1500 pounds	45 cc
500 pounds	15 cc	1600 pounds	48 cc
600 pounds	18 cc	1700 pounds	52 cc
800 pounds	24 cc	1800 pounds	55 cc
1000 pounds	30 cc	1900 pounds	58 cc
1150 pounds	35 cc	2000 pounds	61 cc

1 ml equals 1 cc
1 kilogram (kg) equals 2.2 pounds
1 pound equals 0.45 kg

Animal Health Product: dosage of 3 ml per 45 kg
(3 cc per 99 pounds)

<i>Animal Weight</i>	<i>Calculated Dose</i>	<i>Animal Weight</i>	<i>Calculated Dose</i>
100 pounds	3 cc	1250 pounds	38 cc
200 pounds	6 cc	1400 pounds	42 cc
400 pounds	12 cc	1500 pounds	46 cc
500 pounds	15 cc	1600 pounds	48 cc
600 pounds	18 cc	1700 pounds	52 cc
800 pounds	24 cc	1800 pounds	55 cc
1000 pounds	30 cc	1900 pounds	58 cc
1150 pounds	35 cc	2000 pounds	61 cc

Animal Health Product: dosage of 1 ml per 10 kg
(1 cc per 22 pounds)

<i>Animal Weight</i>	<i>Calculated Dose</i>	<i>Animal Weight</i>	<i>Calculated Dose</i>
100 pounds	5 cc	1250 pounds	57 cc
200 pounds	9 cc	1400 pounds	64 cc
400 pounds	18 cc	1500 pounds	68 cc
500 pounds	23 cc	1600 pounds	73 cc
600 pounds	27 cc	1700 pounds	77 cc
800 pounds	36 cc	1800 pounds	82 cc
1000 pounds	46 cc	1900 pounds	86 cc
1150 pounds	52 cc	2000 pounds	91 cc

Animal Health Product: dosage of 7 ml per 100 kg
(7 cc per 220 pounds)

<i>Animal Weight</i>	<i>Calculated Dose</i>	<i>Animal Weight</i>	<i>Calculated Dose</i>
100 pounds	3 cc	1250 pounds	40 cc
200 pounds	6 cc	1400 pounds	45 cc
400 pounds	13 cc	1500 pounds	48 cc
500 pounds	16 cc	1600 pounds	51 cc
600 pounds	19 cc	1700 pounds	54 cc
800 pounds	26 cc	1800 pounds	57 cc
1000 pounds	32 cc	1900 pounds	61 cc
1150 pounds	37 cc	2000 pounds	64 cc

To convert pounds to kilograms (kg), divide the total number of pounds by 2.2. Example:

$$520 \text{ pounds} / 2.2 \text{ pounds/kg} = 236 \text{ kg}$$

These are provided as SAMPLES ONLY to indicate a range of dosages that may exist.

Always check the label to find out the specific dosage required and calculate for the weight of cattle to be treated. This helps to ensure products are used as per label direction. If not, a prescription is required.

D. Resource Materials

- VBP Pocket Record book
- Blank sample records in hardcopy or electronic versions
- VBP+ self-assessment – to assist enrolling in the VBP+ program/to see where you are at
- VBP+ program checklist – summary of VBP+ outcomes and a guide on audit expectations

Verified Beef Production Plus (VBP+) - program contacts

Check with provincial cattle groups for provincial VBP+ contact information, or go to
www.verifiedbeef.ca

Additional Resources

- ▶ Compendium of Veterinary Products (CVP) – animal health product listing
Available online at www.verifiedbeef.ca or purchase a hardcopy by contacting:
Animalytix Ltd. 45 Erb Street East, Waterloo, ON N2J 1L7 support@cvp-service.com
Phone: 519-746-8258 ext. 103 Toll-free: 877-203-3313 ext. 103
 - ▶ Compendium of Medicating Ingredients Brochure (MIB) – for livestock feeds
<http://www.inspection.gc.ca/english/anima/feebet/mib/cmibe.shtml>
 - ▶ Canadian Cattle Identification Agency (CCIA) 1-877-909-2333 or www.canadaid.ca
 - ▶ Canadian Cattlemen's Association (CCA) – voice of Canadian beef cattle industry www.cattle.ca
 - ▶ Canada Beef – retail, food service and consumer marketing for beef www.canadabeef.ca
 - ▶ Beef Information Exchange System (BIXS) – web-based data transfer to facilitate food label claims and exchange data between willing participants www.bixsco.com
 - ▶ Beef Cattle Research Council (BCRC) – industry research agency www.beefresearch.ca
 - ▶ Canadian Roundtable for Sustainable Beef (CRSB) – stakeholder group defining sustainable beef in Canada www.crsb.ca
 - ▶ Health Canada – tips on food safety <https://www.canada.ca/en/health-canada/topics/food-safety.html>
 - ▶ Canadian Food Inspection Agency (CFIA) – government agency www.inspection.gc.ca
 - ▶ Food Safety Recognition Program www.inspection.gc.ca/english/fssa/polstrat/reco/recoe.shtml
- Federal Acts of Parliament – Justice department <http://laws.justice.gc.ca/eng/acts/>

Feeds Act – <http://laws.justice.gc.ca/eng/acts/F-9/index.html>

Canadian Food Inspection Agency Act – <http://laws.justice.gc.ca/eng/acts/C-16.5/index.html>

Meat Inspection Act – <http://laws.justice.gc.ca/eng/acts/M-3.2/index.html>

Health of Animals Act – <http://laws.justice.gc.ca/eng/acts/H-3.3/index.html>

Food & Drugs Act – <http://laws.justice.gc.ca/eng/acts/F-27/index.html>

Safe Food for Canadians Act – <http://laws.justice.gc.ca/eng/acts/S-1.1/>



Verified Beef Production Plus – Program Checklist

SOP 1 – Animal Health Management

- Use all products according to label directions, or in the case of extra-label use, according to a written veterinary prescription.
- Store animal health products according to label directions.
- Make sure syringes and other equipment deliver the intended amount of product.
- Record all individual animal or group treatments on a permanent record, including deaths/euthanization.
- Securely restrain cattle to avoid potential bent or broken needles.
- If a broken needle occurs, identify the suspect animal and record on a permanent record. If the animal is being sold, the next owner must be informed of the broken needle in the specific animal.
- If treating with the wrong product or dosage, identify the animal, record the incidence, contact a veterinarian and record actions taken.
- Records and written veterinary prescriptions are kept for two years.
- Those undertaking cattle tasks understand requirements of Beef Code of Practice 2013.
- Euthanization of an animal is done in a timely manner with an acceptable method, by competent personnel.
- Cattle are monitored for illness and injury on a regular basis.
- People are mentored on handling cattle and abuse/neglect is not tolerated.
- Shelter is available in case of inclement or extreme weather.
- Pens or indoor housing allow for drainage and comfortable, dry resting areas. Pens are not over-crowded.
- Castration and dehorning is done as early as possible. Pain control is used with dehorning after horn-bud attachment, and for bulls castrated older than 6 months of age as per advice from veterinarian.
- Castration of belly nuts is handled by trained persons with pain control.
- Branding is done by a knowledgeable person with appropriate equipment.
- Feedlots 5,000 head and over follow a written plan to manage non-ambulatory/downer or injured cattle.
- Feedlot staff know what to do if a feedlot animal calves and attention is provided.
- Feedlots 5,000 head and over will complete a cattle handling assessment as part of an on-farm validation audit at a frequency to be determined.
- Persons visiting or returning from international travel in rural areas with livestock take precautions, including complete clothing/footwear change and cleaning or disinfecting materials before entry on to cattle operation.

SOP 2 – Feed and Water

- Cattle are fed according to nutritional needs and have access to palatable water or snow as appropriate.
- Those feeding cattle know what to do in case of power outage or feed equipment failure.
- Feedlot rations are formulated in step-wise manner to allow for cattle adjusting to feed changes.
- Wood chips or wood shavings used for bedding contain no preservatives or other chemicals.
- All non-ruminant feed is stored separately and clearly labeled to avoid inadvertent feeding to cattle, or cross-contamination with ruminant feeds.
- Feeds containing prohibited material (ruminant by-products) are not fed to beef cattle.
- Cattle have not had access to non-ruminant feed (poultry, hog, horse, pet). If so, CFIA is contacted.

SOP 2 – Part 2

(only for operations with Medicated Feed or Water)

- Feed delivery person is informed of unloading requirements for medicated feed or ingredients, including intended storage area or bin.
- Medicated ingredients and medicated feed have a separate and clearly labeled storage area or storage bins.
- Delivery of medicated ingredients or medicated feed is cross-checked with ration or prescription.
- Copies of written and signed veterinary feed prescriptions are available for all extra-label use of feed or water medications.
- Equipment used for medicated feed or water is cleaned, flushed or a system of sequencing is used to avoid cross-contamination of non-medicated feed.
- Scales used to mix medicated feed are tested for accuracy at least once per year.
- Medications are mixed according to label directions and documented ration. Actual amounts mixed are recorded.
- A system is in place to avoid delivery of medicated feed to unintended cattle.
- Staff and/or family members understand mixing and feeding procedures for medicated feed and what to do if an error occurs.
- Medicated feed or water is fed according to label directions or written veterinary prescription.
- Amount of medicated feed fed per pen or group is recorded.
- Cattle pens are clearly identified to ensure medicated feed rations are delivered to the right cattle.
- Reprocessed or flushed feed is used or disposed in a manner to prevent contamination of other feedstuffs.

SOP 2 – Part 2 (continued)

- If feed is mixed with the incorrect amount of medication or wrong product, record the incidence, consult a veterinarian and record actions taken.
- If medicated rations or water are fed to the wrong cattle, record the incidence and actions taken.

SOP 3 – Cattle Shipping

- A records check for all drug withdrawal requirements and broken needles is completed before cattle are shipped to slaughter. This check is identified in a record including date.
- If cattle contain a broken needle, next owner is informed including identification of the animal.
- If cattle are inadvertently shipped without meeting withdrawal times, next owner or slaughter plant is informed and this contact date/information is recorded.
- If cattle are being shipped or sold other than directly to slaughter, and they have not met their drug withdrawal times, the next owner is informed.
- Those making shipping decision or loading know what is not acceptable cattle to load or transport.
- Persons handling cattle understand when /how electric prod can be used. Stock dogs not used in case where cattle not able to move forward.
- Extra traction is provided in loading and processing areas for avoidance of slipping.
- Trucks transporting cattle are ventilated and protection from extreme weather is provided.

SOP 4 – Pesticide Control and Manure

- Manure is stored and used in a manner that benefits the soil and manages against excessive leaching of nutrients into water bodies and groundwater.
- Pens holding cattle destined for slaughter are subject to manure removal at least once annually.
- Herbicides, pesticides, solvents, treated seed and petrochemicals are stored, used and disposed to avoid contamination of cattle feed, soil or water.

SOP 4 (Only if operation uses crop protection products)

- Herbicides and pesticides used on pasture or hay fields within the operation are applied according to label directions and usage is recorded.
- Records regarding herbicide use on pasture are checked before cattle are allowed access.
- If a potential cattle exposure has occurred, an expert (e.g. veterinarian or toxicologist) is contacted for recommended procedures or actions. Actions taken are recorded.
- Persons know how to handle unwanted chemical spills and have material available to clean up or manage as appropriate.

SOP 5 – Training and Communication

- One person in the beef cattle operation has been trained in the VBP Plus program.
- Family members and/or staff understand their tasks relating to SOPs and Must Do requirements of the VBP Plus program. If mistakes happen, communication takes place and persons are able to answer questions on Must Do's.
- Information is recorded if problems or errors with the Must Do requirements, including actions taken.
- Someone is designated from your beef cattle operation to review "Must Do" VBP Plus requirements each year.
- Cattle operation has designated person to manage or mentor human resources.
- Employees are treated with equity/respect, and safe and healthy working conditions exist. Staff /family members are trained or mentored on what is expected.
- Livestock managers know who to contact in case of a disease emergency.
- If someone is neglecting cattle in an outside operation, appropriate communication with experts takes place if needed.
- It is recommended that operation shares aggregate information to BIXS or other means, so that members of beef value chain may use for sourcing claims.

SOP 6 – Land Management and Conservation

- Grasslands and grazing are managed in a way that maintains or improves soil health and protects watershed and riparian areas.
- Cattle operations manage beneficial practices and any risk to soil, water and air in a responsible manner.
- Manure and soil nutrients are managed responsibly. Wintering grounds for cowherds are managed to avoid excessive manure build-up and run-off into water bodies.
- Grasslands and other areas provide habitat for wildlife.
- Deadstock is disposed in a manner that avoids leaching into water bodies.
- Cattle do not have access to raw human sewage.
- Operations seek to conserve energy, improve production efficiencies, adapt research and other innovation that assist stewardship of land and resources.
- Invasive plant species are managed as appropriate.
- Cattle operation reduces waste, re-uses and recycles products/materials as is feasible.
- Practices are considered, where proven, to enhance carbon sequestration and/or mitigate greenhouse gas.
- Irrigation water is managed responsibly/ efficiently.



