



Producer Manual

Canadian Cattlemen's Association (CCA)



**March 31, 2009
Version 7.7**

Canada's beef on-farm food safety program under



Table of Contents

| | |
|--|----|
| 1. Introduction | 3 |
| 2. Standard Operating Procedures (SOPs) | 3 |
| 3. What do I need to do? | 5 |
| 4. SOP 1 – Animal Health Management | 7 |
| 5. SOP 2 – Feed and Water: Medicated and Non-Ruminant Feed | 11 |
| 6. SOP 3 – Cattle Shipping | 13 |
| 7. SOP 4 – Pesticide Control and Manure | 14 |
| 8. SOP 5 – Training and Communication | 15 |
| 9. Annual check on important procedures and records | 16 |

Appendix

| | |
|---|----|
| a. Glossary of Terms | 17 |
| b. Sample Records (6)..... | 19 |
| c. Sample dosage calculation tables | 25 |
| d. List of Resource Materials | 26 |

“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.”

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

Some 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.
- Initials 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 registration requirements. Upon successful completion of the audit and any possible corrective actions, a producer will become registered with the VBP program.

To maintain registration, 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 ninth year, a full audit is required and the cycle continues.

VBP Audit Pattern:**F - R - S - S - R - S - S - S***each year over 8 years, then repeat*

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

► **random audit may occur in any of the five self-declaration (S) years**

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.

The VBP program requires:

- Feeds containing prohibited material (ruminant by-products) are not fed to beef cattle.
- Annual Prohibited Feed Affidavit from commercial feed suppliers for feed containing protein supplements is available, to emphasize the importance of avoiding prohibited feed materials in cattle feed.
- 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

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.verifiedbeef.org under “Quick Links”.

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.

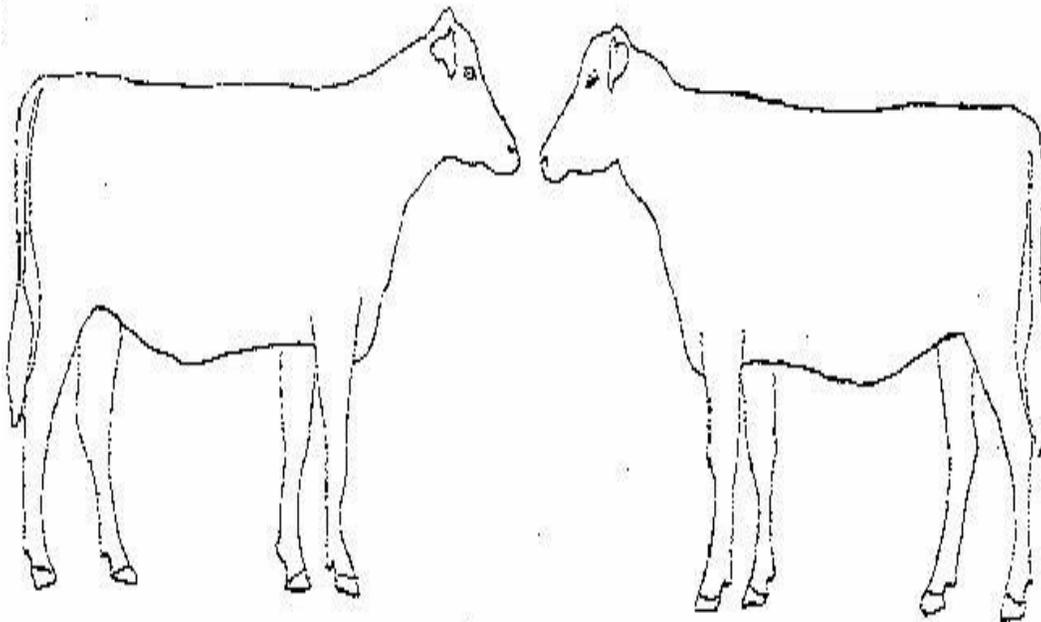
Note: definitions for extra-label use, withdrawal period, and prescription are found in *SOP1 Animal Health Management* section c) on page 9 of this manual.

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"):



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

Good Production Practices for Cow-Calf Producers
Good Production Practices for Feedlots
VBP Pocket Record book
Introductory Guide to Canada's Beef On-Farm Food Safety Program (VBP)

Compendium of Veterinary Products www.naccvp.com
available from North American Compendiums Ltd.
PO Box 39 approximate price \$104
Hensall, Ontario N0M 1X0 online at www.verifiedbeef.org under Quick Links
Tel: 519-263-3000 Fax: 519-263-2936 Order Desk: 1-800-350-0627

Compendium of Medicating Ingredients Brochure (MIB)
available from St. Joseph's Print Group Inc.
1165 Kenaston St PO Box 9809 Stn. T
Ottawa ON K1G 6S1 approximate price \$53 (handbook) or \$72 (CD-Rom)
Tel: 1-888-562-5561 or 1-613-746-4005
<http://www.inspection.gc.ca/english/animal/feebet/mib/cmibe.shtml>
Fax: (613)-740-3114 Email: dlsorderdesk@eprintit.com

Canadian Cattle Identification Agency (CCIA)
1-877-909-2333 or www.canadaid.ca

Canadian Cattlemen's Association www.cattle.ca
- link to provincial cattle association websites and other industry information

Verified Beef Production™ program www.verifiedbeef.org (verifiable on-farm food safety program for beef cattle in Canada)

Quality Starts Here education information www.cattle.ca under "Producer Info" or directly at <http://www.cattle.ca/qsh/qsh/default.htm> (original quality management on-farm recommendations)

Canadian On-Farm Food Safety Working Group (all national commodity groups)
- the approach to on-farm food safety in Canada www.onfarmfoodsafety.ca

Canadian Veterinary Medical Association - Guidelines on "The Prudent use of Antimicrobial Drugs in Animals" www.cattle.ca/qsh/qsh/default.htm under *Pharmaceutical Information*

Canadian Food Inspection Agency www.inspection.gc.ca

- Feeds Act – <http://laws.justice.gc.ca/en/F-9/index.html>
- Canadian Food Inspection Agency Act – <http://laws.justice.gc.ca/en/C-16.5/index.html>
- Meat Inspection Act – <http://laws.justice.gc.ca/en/M-3.2/index.html>
- On-Farm Food Safety Recognition <http://www.inspection.gc.ca/english/fssa/polstrat/reco/recoe.shtml>
- Health of Animals Act – <http://laws.justice.gc.ca/en/H-3.3/fulltoc.html>
- Food & Drugs Act – <http://laws.justice.gc.ca/en/F-27/index.html>