Verified Veal

The Canadian On-Farm Food Safety Program for Veal

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Section 1: Setting the Table

1.1 Introduction

Our agri-food continuum is vital to Canada's continued success. It produces eight per cent of our gross domestic product, accounts for one in every seven jobs nation-wide and contributes some two billion dollars to our economy from export markets.

The Canadian veal industry, which markets over 300,000 animals per year and exports almost half of them, is an important part of this process. The global market place, however, demands constant improvement. To maintain and expand our position, we must continuously strive to enhance our reputation as producers of safe, high quality food.

Today, the consumer's expectation of safe food, both in Canada and internationally, is forcing marketers of food products to insist that their suppliers develop and follow a comprehensive, safe food production system. As producers, we must demonstrate to both existing and potential customers that our product meets their increasingly high standards.

By promoting our On-Farm Food Safety Program we will:

- Protect human health by reducing exposure to food-borne hazards.
- Increase consumer confidence, both at home and abroad, in the safety and quality of our product; this can be done with a preventative, rather than a reactive, approach to food safety.
- Increase our ability to meet and exceed market specifications for safety and quality.
- Find that the On-Farm Food Safety Program is an educational tool. We learn, through the records we keep, to be more selective about the types and amounts of animal health products we use. In the same respect, the program creates a greater awareness of on-farm food safety among employees.
- Learn, through the use of Good Production Practices (GPPs), to maximize productivity, quality and profitability to save time and money.
- Build a traceability system for animals and associated products so their origin can be traced as they enter the production facility.
- Build and maintain a system of integrity that is defendable from a legal liability perspective.
- Evolve towards a greater brand recognition status to give all veal producers a more competitive position domestically and internationally.

Consumers expect and demand safe, high quality food. Retailers pass this expectation on to processors who in turn look to us the producers. Today, processors show a preference for product from a producer on a HACCP-based program. Tomorrow, they may demand it!

1.2 What is the Canadian On-Farm Food Safety Program for Veal?

The Canadian On-Farm Food Safety (COFFS) Program for Veal, referred to as the Verified Veal Program (VVP), is designed to provide producers with an answer to the consumer demand for

proof of food safety. It provides our customers with the assurance that the veal produced in Canada, both milk-fed and grain-fed, is of the highest quality.

Our approach addresses food safety through the use of a HACCP-based program. Any producer can participate provided that he/she meets all program requirements.

To be registered as a Verified Veal herd, producers must follow the Mandatory and Highly Recommended Practices, maintain accurate records and have a satisfactory evaluation from the program auditor. Updated lists of registered producers will be maintained and those registered as Verified Veal herds will be recognized throughout the industry.

We now live in an era of traceability, increased liability, and ever-greater emphasis on food safety. The success and viability of the veal industry depends on every producer identifying, controlling, and/or preventing on-farm food safety hazards.

1.3 What is HACCP?

Hazard Analysis Critical Control Point (HACCP), pronounced 'ha-sip', is an approach to food safety that was originally developed by Pillsbury, the giant food conglomerate, in 1959 to comply with NASA's need for a safe food supply for its astronauts.

HACCP principles are recognized internationally as the benchmark for food safety since they alone use sound, well-known principles of science and technology, which can be used to create and maintain a safe food supply. The system is designed to provide a clear series of steps that will lead members to choose and take corrective actions when a problem is found. HACCP is now endorsed by over 140 member nations of the World Health Organization (WHO).

HACCP is a preventative systems approach to food safety in which potential problems (hazards) are identified before they occur. A decision-making process then defines the places at which these hazards can be eliminated or reduced to acceptable levels (*Critical Control Points* or CCPs).

The World Health Organization has set out seven principles to follow when developing a HACCP plan. These are:

1. Identify the biological, chemical and physical hazards for each raw material and production step.
2. Apply the HACCP Decision Tree to find which hazards are Critical Control Points.
3. Set critical limits to ensure that each of the CCPs is under control.
4. Set up monitoring procedures for each CCP.
5. State what corrective actions will be followed whenever a problem is found.
6. Set out verification procedures to prove that the control program is working.
7. Set up records and documentation to prove that we are actually doing what we say we will do.

Prevention is the key in this whole exercise.

The problems or hazards that we recognize can be further broken down into:

a) Biological Hazards:

Biological hazards include bacteria (and their toxins), viruses, or parasites that can be transmitted in food and cause illness in humans (i.e. *E. coli*).

b) Chemical Hazards:

Chemical hazards include heavy metals, pesticides and animal health products such as antibiotics.

c) Physical Hazards:

Broken needles that may remain in the animal and end up in a roast of veal are examples of physical hazards

In addition to prevention, the other aspect of HACCP is documentation. Producers on a HACCP program identify what they are going to do and then document the actions taken in order to prove that they have completed their control measures. To simplify:

- Say what is going to be done.
- Do it.
- Prove that it has been done.

Most responsible producers already do many of these things but in a less formal fashion. Part of any HACCP program is to ensure that all the components of an operation are produced using HACCP principles. That is why producers are being asked to provide assurance at the farm level. This concept is new for Canadian producers but producers in other countries have used it with success and it will soon be the price of doing business internationally in all aspects of the livestock industry.

1.4 Routine Monitoring of Pharmaceuticals in Canada

In order to ensure that Canadian meat products continue to be the safest and highest quality available, the Canadian Food Inspection Agency's (CFIA) National Chemical Residue Monitoring Program monitors market animals for a wide variety of substances. In addition, federally inspected abattoirs routinely conduct a Swab Test on Premises (STOP) on carcasses that show signs of injection or chronic conditions.

For more information refer to CFIA website: www.inspection.gc.ca

1.5 The Manufacturing of Canadian Pharmaceuticals

To market drugs or pharmaceuticals in Canada, drug manufacturers must submit data to the federal government that proves the safety and efficacy of the drugs. Information submitted to license a drug includes the drug substance, manufacturing process, safety and efficacy for the intended use, detailed protocol and results of clinical trials, and toxicity and residue data to assign appropriate withdrawal periods. If the information submitted complies with the

requirements of the Food and Drugs Act and Regulations, a notice of compliance is issued for the manufacturer to sell the product in Canada for the use under the conditions specified on the drug label. Similar regulatory requirements are in place for the licensing of veterinary biologics. These products are then given a Drug Identification Number (DIN) by Health Canada that attests to their potency, purity, concentration and bioavailability.

1.6 Feeds Act and Regulations

The federal Feeds Act and Regulations govern the manufacture, sale and importation of livestock feed and feed ingredients. The Plant Products Division of the Canadian Food Inspection Agency (CFIA) and area and regional plant products inspection personnel administer these acts and regulations. The CFIA's responsibilities include:

1. Establishing product standards, packaging and labelling criteria.
2. Monitoring products to protect farmers, livestock and the public against potential health hazards and marketing fraud.
3. Ensuring product safety (i.e. animal and human health), manufacturing safety (i.e. environment) and assurance against product difficulties.

1.7 Deleterious Substances

For the purpose of the Canadian Feeds Act, some compounds are identified as deleterious substances. Their presence is monitored in Canadian feed mills and random testing occurs at meat processing plants on the animal organs most likely to contain the substances being monitored.

For more information, refer to the CFIA website: http://laws-lois.justice.gc.ca/eng/acts/H-3.3/.

1.8 Feed Manufacturers

Feed manufacturers are involved in the sale of non-prescription drugs, as well as the preparation and sale of medicated feed. They ensure the correct concentrations of the proper ingredients are adequately mixed in feeds and the feed tag label includes the directions for use and appropriate caution and warning statements to be observed by livestock producers. A voluntary HACCP program exists for feed manufacturers.

The Compendium of Medicating Ingredient Brochures (CMIB) contains information on the use of drugs in feed including permitted drugs and drug combinations for use in animal feeds.

1.9 To Register in the Program

There are four steps required to register in the Verified Veal Program. They are as follows:

1) Apply to your Provincial Veal Organization

The provincial organization will enrol your farm and send you a copy of the Verified Veal producer manual and related material. A training session or workshop may be offered at the discretion of the provincial organization.

2) Review the Verified Veal Producer Manual

The Verified Veal producer manual documents a series of Good Production Practices (GPPs) related to veal production. A GPP is a production/process step routinely taken to maintain a high level of quality in a single aspect of veal production. GPPs for the VVP are outlined in *Section 2*. Each GPP is numbered, categorised and outlines individual actions as either a "Mandatory Practice" (MP), "Highly Recommended Practice" (HR) or a "Suggested Practice" (SP).

Critical Control Points (CCPs), identified using the HACCP-based Decision Tree, are supported throughout this manual by MPs in the various GPPs. A CCP is a point, step, or procedure in the veal production process where control can be applied (i.e. actions can be taken) to contain, reduce, or eliminate an identified hazard. Total elimination or prevention is impossible for some hazards. In those instances, the goal is to control the hazard at an acceptable level. Each MP that is related to a CCP is given a CCP number (i.e.CCP-1P). The hazards associated with CCPs in the Verified Veal Program are either chemical (C) or physical (P) in nature.

The Verified Veal Program contains two CCPs, CCP-1C and CCP-2P, outlined below.

CCP-1C: This CCP relates to MPs associated with animal health product(s) given to calves and medicated feed formulation, mixing, storage and distribution, including the observance of withdrawal times. Controls are needed at the time animal health product are given, when the operator determines the dose, route of administration and identity of animals, as well as the observance of withdrawal times when the animal is sent to slaughter. For example, shipping calves to slaughter before the drug withdrawal period has lapsed may result in chemical residues in the meat.

CCP-2P: Control of physical hazards, like broken needles, occurs at the time of injection and again when records are reviewed before the animal is sent to slaughter. For example, when a calf is sent to a new owner (i.e. another producer or a packing plant) and a broken needle is not identified, it could result in the needle ending in the meat.

3) Establish Records and Protocols

After reviewing the Verified Veal manual, establish and maintain the records and protocols defined by the program (see *Sections 3 and 4*). All mandatory records must be in place for three months before an audit can occur. All Mandatory and Highly Recommended protocols will also be audited. All required records must be kept for a minimum of two years.

4) Apply for Registration

After three months of keeping records, producers can contact their provincial veal organization and can request an audit under the Verified Veal Program. Provinces and Territories located east of Quebec will submit their applications to the Quebec association office and the areas west of Ontario will contact the Ontario association office. The program administrator will review the program requirements with the producer over the phone to confirm readiness for an on-site audit (referred to as a Full Audit).

1.10 Producer Commitment

It is important that when producers join the program they make a written commitment, legitimized by a dated signature, to maintain the requirements of the Verified Veal Program by adhering to certain Good Production Practices. By making this commitment each year they need not maintain records for these activities on a regular basis. An example of this Producer Commitment is included with *Section 3: Proposed Records*.

1.11 Audit Process

A verification checklist of all required activities (MPs and HRs) listed in the Good Production Practices section is included in *Section 6*. Use this list to ensure that all required action points are complete. Once the producer is satisfied with the farm's readiness, an application can be made for an official on-site audit (Full Audit) under the Verified Veal Program.

MPs, HRs and CCPs are the basis for review during scheduled on- farm audits and will be rated as:

Acceptable (A)
Needs Improvement (NI)
Unacceptable (U)
Not Applicable (NA)

If the audit is satisfactory, meaning all Mandatory Practices are compliant and fewer than four corrective action plans are required for the Highly Recommended Practices, the auditor may recommend registration and a certificate will be issued. The farm will then enter into the seven year cycle of audit verification, comprised of Full Audits, Records Assessments and Self-Declarations, scheduled as follows:

Year 1 Full Audit (on-site)
Year 2 Records Assessment
Year 3 Self-Declaration
Year 4 Records Assessment
Year 5 Self-Declaration
Year 6 Records Assessment
Year 7 Self-Declaration

If some portion of the audit is unsatisfactory, for example, an MP is rated as "U" or "NI" or Unacceptable or Needs Improvement respectively, a *Corrective Action Report* is submitted by the auditor. This form will clearly state the specific deviation and the necessary step(s) the

producer must take to achieve compliance in the area of activity. Producers must indicate his/her commitment to correct the deviation on the auditor's *Corrective Action Report*. This will include the means of correction and the deadline by which the correction will be completed. This action will be reviewed after the deadline to ensure compliance, upon which a certificate will be issued.

To maintain registration in the Verified Veal Program, the producer must provide the requested sample of records and/or signed self-declaration form each year to prove that the program requirements are still being met in the absence of a Full Audit. In these subsequent years, complying farms will receive a sticker of validation for their certificate.

In case of severe or multiple deficiencies, the Full Audit may be repeated on a more frequent basis. Additionally, five per cent of producers that are not scheduled for Full Audits will be randomly selected for on-site audits as verification of the program cycle.

1.12 Manual Components

The Verified Veal manual is intended to be a reference tool throughout the entire production cycle. At any time, the Table of Contents at the front of the manual can be used to quickly locate information. Throughout the Verified Veal manual all references to records, protocols, etc., included in the manual will be italicized.

Section 2 is structured with boxed tables that include Mandatory Practices, Monitoring, Deviation and Verification Procedures, Highly Recommended Practices, Suggested Practices, Records and Protocols. The following is an example:

Mandatory Practices (MP)

MP 2.2.3 Mandatory practices are numbered for reference purposes and are outlined in shaded boxes with black contour like this. The practices located in these boxes are mandatory to protect the farmer's herd from food safety hazards during the production cycle.

Monitoring Procedures	Deviation Procedures	Verification Procedures
These are activities the operator follows to check that hazards on the farm are being reduced or eliminated.	If something goes wrong, the operator follows these procedures to control the situation and correct the problem.	Verification is optional and not all MPs require it. If the Verified Veal Program calls for verification, the operator must follow these procedures if there is a corrective action or at selected intervals have an outside party (if possible) review the process.

Records: This section of the table outlines which records correspond with the monitoring, deviation or verification procedures. For example: *Veal Treatment and History Record (3.2)*, *Corrective Action Report (3.12)*.

Highly Recommended Practices (HR)

HR 2.2.1 Highly Recommended Practices are outlined in a shaded box like this. These practices are not directly related to food safety, but were considered very important by the development team. All Highly Recommended Practices should be followed by the producer.

Suggested Practices (SP)

SP 1.1 Suggested Practices are outlined in a box like this. While not mandatory, they are recommended in order to help produce a healthy animal and therefore a safe food supply for human consumption.

Mandatory Protocols

Mandatory Protocols of the Verified Veal Program will be found in boxes like this. These are the guidelines, usually associated with MPs, that help the operator control a particular hazard.

Highly Recommended Protocols

Highly Recommended Protocols are outlined in a box just like this. These will include useful management practices that the operator should incorporate into their farming operation.

Suggested Protocols

Suggested Protocols are outlined in a box just like this. These will include useful management practices that the operator may want to incorporate into their farming operation.

Section 3 contains a proposed format for record that you will be required to keep. The mandatory records are shaded grey. You do not need to use this exact record form but you must be able to access all the information that it asks for and have it available when the time comes for the audit of your farm program. Records are essential to a good HACCP-based program and will allow producers to prove that they are doing what they say they are.

Section 4 contains all Mandatory, Highly Recommended and Suggested Protocols pertinent to the program. They can be retrofitted by the producer to ensure they coordinate with the

management of his/her farm, provided they meet all of the required criteria and document all of the required information.

A group of Appendices are included in *Section 5* for reference as needed. Suggested *Retailer Suppliers' Commitment Form* and *a Transporters' Commitment Form* are enclosed. These may be used to illustrate your commitment to the prevention of potential contamination from incoming products.

Section 6 contains a checklist outlining the MPs and HRs required for registration under the Verified Veal Program.

A Glossary of Terms is located in *Section 7* which defines and describes the words frequently used in Verified Veal manual.

1.13 Future Considerations

The Verified Veal manual provides an outline of the Verified Veal Program that is a dynamic ongoing process. Therefore, the manual will be reviewed and updated on a regular basis.

The Canadian veal industry recognizes that the regulations related to the Canadian Food Inspection Agency's (CFIA) new Federal Feeds Act will regulate on-farm mixing of medicated feed. When the new regulation comes into effect it will be included in the program.

As of today CFIA may require treatment records, mixing records, etc. to be kept for 10 years for producer to be in compliance with federal regulations. Producers are responsible to kept up to date on that subject

Section 2: Good Production Practices

2.1 Premises

Exterior

MP 2.1.1 Deadstock is immediately placed in a designated area separate from animal housing and the calf number is recorded in the *Veal Treatment and History Record.*

Monitoring Procedures	Deviation Procedures
The operator will promptly: -Check that whenever there is a dead calf, it is placed in the designated deadstock holding area until disposal. -Record the calf's identification number in the *Veal Treatment and History Record.*	If the operator finds a dead calf outside the designated area he/she will: -Immediately place the dead animal in the deadstock holding area. -Retrain the employee responsible for the deviation. -Record the corrective action.
Records: *Veal Treatment and History Record (3.2), Corrective Action Report (3.12)*	

SP 1.1

- Shrubbery and grass should be maintained in a neat and orderly fashion including the removal of debris for a distance of at least three metres (ten feet) around the buildings.

- Roadways should be properly graded and shipping and receiving areas should be well drained.

Buildings, Interiors and Pens

SP 1.2 Any protruding objects that could harm the calves such as nails, bolts or sharp corners should be eliminated in the areas that calves have access to. The operator will observe the premises during his/her daily work and eliminate any protruding objects as necessary.

MP 2.1.2 Treated wood cannot be used in any instance it can come into contact calves , unless it is covered. (i.e. covering treated lumber with plastic, plywood or metal). This is recorded in the *Producer Commitment.*

Monitoring Procedures	Deviation Procedures

The operator: - Checks for existing or newly exposed treated wood in the barn as part of normal operations. - Ensures that when pens are repaired, any treated wood is immediately covered up.	If the operator discovers treated wood used as penning material: - It must be covered immediately with a suitable material.
Records: *Producer Commitment (3.1) Corrective Action Report (3.12)*	

HR 2.1.3 Rooms and/or pens must be clearly identified to facilitate completion of the *Veal Treatment and History Record's* group treatment section.

SP 1.3

- Penning size shall meet the guidelines of the National Farm Animal Care Council's Recommended Code of Practice for the Care and Handling of Veal Calves (see *Section 5.2*).

Buildings should be designed to:

- Be easily cleaned.
- Prevent the entrance and harbouring of pests.
- Prevent entry of environmental contaminants.
- Be comfortable for the animals.
- ~~Contribute to the production of a wholesome, draft-free environment.~~
- Have loading chutes that are strong, provide safe footing, have no sharp corners and a gradual slope.
- Have a floor surface that provides traction in areas where calves travel.
- Have an area to be used as a sick pen.

Ventilation

Ventilation may be passive or mechanical (i.e. electric) and it should provide sufficient air exchange for the number and size of calves being housed.

SP 1.4

- The ventilation system should be operational and in good working order.
- A reliable alternate power source should be readily available in the event of a power outage. This alternate power source should be tested every three months.
- Consult your local industry specialist regarding the ventilation necessary for the size and number of calves in your operation.

2.2 Controlling Access to the Production Facility

By controlling access to your barn you will protect your veal operation from the introduction of disease. The biosecurity program that you put in place will help to control the entry of biological and chemical hazards.

Bacteria, viruses and parasites that cause disease can gain entrance to your premises in a variety of ways. They can be introduced by mechanical vectors (i.e. footwear or vehicle tires) or by biological vectors (i.e. actively infected carriers such as birds, rodents and flies which shed the organism in their feces).

A mailbox outside the facility should be used if the deadstock collector must pick up or leave documents for the veal producer. By restricting entrance to your livestock building, you can adequately control the introduction of biological hazards.

Each farm operation must be individually assessed at the time of implementation to ensure identified on-farm hazards have been addressed. Operators must ensure that a visual plan of the farm is available in order to indicate the loading and shipping area for people present at the farm. The purpose of the specific farm diagram is to identify product and people flow to determine and reduce areas of potential cross contamination.

Farm Pets

The operator should consider the place that farm dogs and cats have in the confinement area of the veal operation. Dogs and cats that stay at home and take an active interest in the farm's rodent population are an asset; alternatively, both dogs and cats can carry and transmit disease to veal calves. Those that roam far and wide, bringing the neighbours' bacterial and parasitic problems home with them, are a liability. It is recommended that cats and dogs be restricted in terms of access to the animal production facility.

HR 2.2.1 No food producing animals other than bovine shall be allowed in the production facility. This is recorded in the *Producer Commitment.*

Visitors

HR 2.2.2. The operator shall have a visitors' register and protocol in place, which includes: • Wearing provided shoe coverings, washing and disinfecting their shoes with the accessories provided or by walking through a disinfectant footbath. • Avoiding all unnecessary physical contact with the veal calves and feeding equipment. • Washing hands in the sink on arrival and before leaving the building.
HR 2.2.3 The operator shall have a biosecurity program in place.

Biosecurity Protocol

The following elements must be included in the on-farm Biosecurity program:

- Filling in the *Visitors' Register* in which the following visitor information will be recorded:
  - Date
  - Full name
  - Phone number
  - Signature

- The deadstock collector will not enter the veal facility.
- Truck drivers delivering new calves or picking up market calves have only specified limited access as per agreement with the operator.

  For the use of all other visitors, the operator will:

  - Provide a *Visitors' Register* that documents visitor presence within the facility. This register also lists security and sanitation procedures acceptable to the facility.
  - Provide hot and cold water in grain-fed nurseries and in milk-fed barns.
  - Provide access to wash water in grain-fed finisher barns.

- Ensure visitors wear waterproof shoe coverings, wash and disinfect their shoes, or use a disinfectant footbath. If a footbath is used, the solution used in the disinfectant footbath will be prepared with an appropriate disinfectant used according to the manufacturer's recommendations (see list of common disinfectants in *Section 2.11*) and replenished as visibly required.

- Ensure that all visitors know to avoid unnecessary physical contact with calves and feeding equipment.

- Ensure that a warning sign restricting entry to the facility is easily readable and in plain view at the entrance to the livestock building.

The following is an example:

DO NOT ENTER WITHOUT PERMISSION

Additional elements for your farm:

_____

_____

3.7 *Visitors' Register* (SAMPLE)

Date (d/m/y)	Name	Phone number	Signature
3-02-11	Trucker 1	664-6644	Trucker 1
7-05-11	Miss 3	992-8877	Miss 3

2.3 Pest Control

Insects, birds and rodents are also active sources of disease-causing organisms and need to be controlled on-farm.

Insects like flies, for example, are frequent carriers of bacterial and viral disease and have been known to travel up to one and a half kilometres from farm to farm. Regular manure disposal will aid in reducing the fly population as will fly baits, coils, sticky paper, ultra violet fly traps and the installation of window screens in housing areas.

Birds are also frequent shedders of disease-causing organisms, such as *Salmonella*, and can travel great distances. Installation of window screens in confinement areas, denying birds access to feed, and the elimination of roosting sites in traditional bank barns will help to control bird populations in veal production facilities.

Rodents frequently travel several kilometres from farm-to-farm and are the most serious spreaders of disease that producers must deal with. While rodents cannot be eliminated in the farm setting, they can be controlled. Uncontrolled pest can cause significant damage to the premises and feed.

Pest Control

HR 2.3.1	The operator shall have a pest control program in place.

Pest Control Protocol

A pest control program will include, as a minimum:

- The name of an individual or exterminator company responsible for the farm's pest control program. Maintain a contractor report if applicable.

If the pest control is done by the producer:

- The names of chemicals used for pest control and the methods of applying them.
- The location of bait stations in the barn and bedding storage area (with a map).
- The placement of multiple catch or snap traps orglue boards.

In all cases

- Eliminating refuse and empty feedbags in the barn that could provide shelter for pests.
- Plugging possible rodent holes in the walls and floors to deny pests access to the facilities.

Additional elements for your farm:

_____

_____
_____
_____

3.8 Pest Control Record (SAMPLE)

Date **(d/m/y)**	**Product Name**	**Method of Application** (how, where)	**Comments** (plugging holes, placement of glue boards, etc.)	**Done by Initials**
24-02-11	Ratak	Bait traps		NC
The pest control program is under the responsibility of (name of company):				

2.4 Personnel Evaluation and Training

This on-farm food safety program provides both managers and employees with the opportunity to document what they do, as well as gain additional training and knowledge.

To be successful, the operator must stay on top of trends and share his/her knowledge with employees. He/she should take every opportunity to acquire training and avail him/herself of new information. Delegation, however, is an important function and does not relieve the operator of responsibility if employees are not adequately trained. Employees should be given tasks and responsibilities that are within their capabilities.

New employees will require an orientation period to become familiar with the operation's protocols. This orientation period will vary in duration depending on the new employee's aptitude and previous experience.

Personnel training should emphasize various skills and areas of responsibility. The following are only a few examples of GPPs that might be considered:

Production Controls:

- This training will enable staff to document their understanding by maintaining the records relative to the MPs and HRs that affect their duties.

Hygienic Practices:

- Personnel will understand the importance of sanitation, infection and the transfer of disease.
- Personnel will understand the importance of using footbaths including the routine changing of the disinfectant used.
- Personnel will understand why they must wash their hands after handling sick calves or using the washroom.
- Personnel will also understand the importance of not wearing boots into the confinement area of the veal operation that have been worn in any other livestock operation.

Care and Handling of Veal Calves:

- Personnel will be trained in proper handling and restraint techniques specific to veal calves.
- Personnel will understand animal movement and the 'flight zone' and will always use the least amount of force necessary when handling veal calves.
- Personnel will have an understanding of the signs of sickness and injury in veal calves.

HR 2.4.1 The operator will ensure that all employees are properly trained in the tasks they are responsible for and are knowledgeable about the current Verified Veal Program. If anything goes wrong, the employee should be retrained to prevent recurrence. This is recorded in the *Producer Commitment*.

2.5 Purchasing and Receiving

Purchasing and receiving includes all inputs that are necessary for the production of veal. Care must be taken to prevent contamination when inputs, for example feed and medication, are received from an outside source.

It is essential that the producer or a trained employee examine all incoming materials prior to use.

The potential for errors or contamination occurs when a wide variety of items and materials are received on-farm. This is the time to check, review and take steps to prevent these risks from occurring.

Feed

The producer must be aware of current feed regulations that affect liquid and solid feeds, like medicated feeds and animal products prohibited for use as feed ingredients for example.

As an input, feed is categorized as either feed produced on the farm, such as grain and fluid milk, or purchased feed like milk replacer, grain and fibre sources.

SP 5.1 Purchased commercial processed feed, like protein supplement, complete feed, or milk replacer, should be purchased and received from a HACCP recognized source where possible. This source will have a program in place to prevent feed contamination by disease agents, animal health products, ruminant source feeds or farm chemicals on the processing site or during transit to your farm.

Non-HACCP certified feed manufacturers may not have a quality control program in place, therefore, caution must be exercised when purchasing feed from these sources. HR 2.5.2 reflects the control measure that is required.

HR 2.5.1

i) Raw milk shall be received from off-farm sources as per regulations.

ii) Incoming feed, whether produced on the farm or purchased, is recorded in the *Incoming Feed Record* (date, product name and supplier).

HR 2.5.2

i) Non-HACCP suppliers of processed feed are required to provide written assurance that steps have been taken to assure product integrity and to prevent contamination of feed with disease agents, animal health products, ruminant source feeds or farm chemicals both at source and during transit to the producer each year. This assurance will be filed with the *Incoming Feed Record.*

ii) If the feedbags are plastic-lined and come from a HACCP manufacturer, there is no need for a written assurance.

MP 2.5.3

i) No food producing animal feed except that intended for veal calves shall enter a veal production facility. This is recorded in the *Producer Commitment.*

ii) Calves must never be fed byproduct protein.Follow regulations regarding prohibited feed

Monitoring Procedures	Deviation Procedures
The operator: - Purchases feed from a HACCP certified mill or obtains written assurance from the non-HACCP mill that they have taken steps to control any possible contamination of feed from other food producing animal feed or other contaminants and checks annually for an updated written assurance. - Checks the feed label and visually inspects the feed before the first feeding to ensure the feed delivered was the feed requested.	If prohibited feed is found, the operator will: -Immediately separate prohibited feed from veal calf feed. - Contact the feed mill and request them to take the feed delivered in error back as soon as possible. - Retrain the personnel responsible to prevent recurrence. - Record the corrective actions taken.
Records: *Producer Commitment (3.1), Incoming Feed Record (3.5), written assurance, Corrective Action Report (3.12)*	

Feed Sampling

HR 2.5.4 Bagged or bulk feed purchased from a HACCP manufacturer or supplier need not be sampled, but an invoice or delivery slip with traceability information must be filed or recorded in the *Incoming Feed Record.*

HR 2.5.5 Feed purchased from a non-HACCP mill: samples of feed will be taken and the samples will be kept for nine months. This is recorded in the *Incoming Feed Record.*

When calf feed is purchased from a non-HACCP supplier, a randomly selected one pound (500 gram) sample of each feed will be collected and stored in a sealed container (like a large zip-lockedbag). It should then be clearly identified with product name, product source, date of arrival and lot number. The sample should be collected before the first use of the feed.

3.5 Incoming Feed Record **(SAMPLE)**

Date (d/m/y)	Feed name	Supplier			For medicated feed			Stored (bin number or location)
		Produced on farm If yes, no sample is required	Purchased feed or Commercial processed feed		Name of medication (from feed label)	Mg of medication /kg of feed (from feed label)	Withdrawal in days (from feed label)	
			HACCP supplier Indicate batch number	Non-HACCP supplier Date of sampling (d/m/y)				
10-10-10	Corn	yes						1
09-03-11	Veal Milk Replacer	No	1234		chlortetracycline	55	5	2

Calves

The quality of a market animal is based on the quality of bob calf that the producer receives. Many factors contribute to raising healthy calves and these factors are the components of a good animal husbandry program. When calves are purchased from an operation that follows Good Production Practices, the health of the calves will be typically better than calves from a source that does not follow GPPs.

A major factor in calf health is the exposure to stressful situations. It is important to eliminate as much stress as possible in the calves' environment in order to give them the opportunity to overcome any subclinical disease and regain full health. The following are examples of stressors that can trigger visible sickness in calves with subclinical disease:

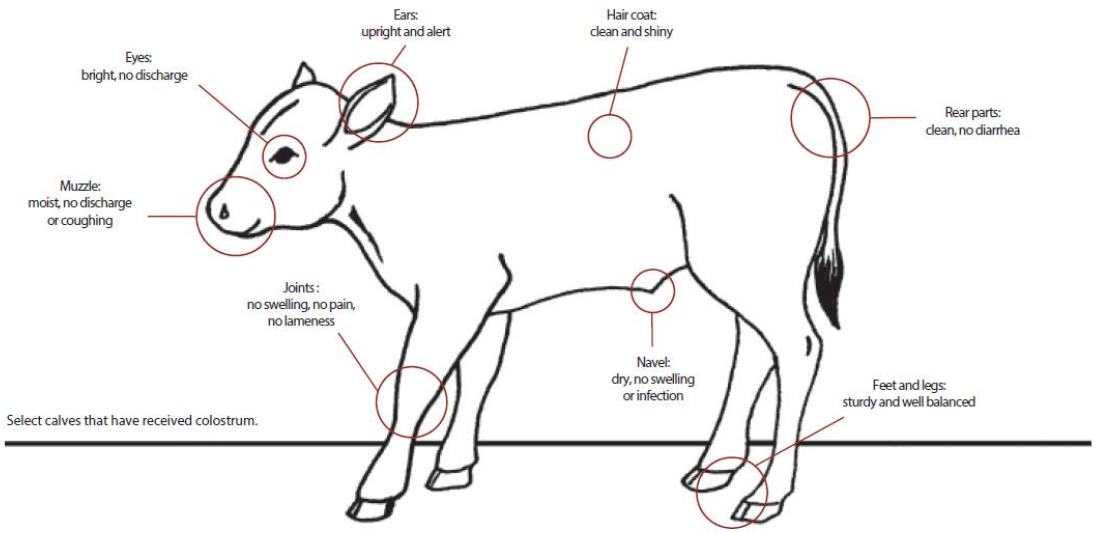
- Overcrowding.
- Poor quality or contaminated water.
- Damp or drafty environment.
- Rapid fluctuation in barn temperatures.
- Poor air quality.
- Rough handling.
- Improperly mixed milk replacer or grain ration.
- Poor quality milk replacer or grain ration.

SP 5.2Veal Calf Reception Protocol

The quality and health of calves upon arrival at the veal barn is a major factor in their subsequent health, need for treatment, growth performance and carcass quality. The following are points to consider when receiving veal calves:

- When possible, purchase calves from a minimal number of sources.
- Calves should be transported in a clean truck designed to protect them from adverse weather conditions and, when possible, calves should be transported directly from the point of purchase to your farm.
- Whenever possible, newly received calves should be segregated from the general barn population upon arrival.
- It is recommended that compromised calves be identified, separated and treated adequately, but if they are weak, injured, underweight or obviously sick, they should not be transported.
- Calves with wet, swollen navels or warm swollen joints should not be accepted.
- Calves should be at least ten days old and have a dry navel before leaving the birth farm.
- Calves should be fed an appropriate ration within six hours of arrival.
- Calves, in the first 6 hours of life, should have received adequate amounts of high quality colostrum/colostrum replacer (10% of body weight). Transition from colostrum to milk is gradually done in the 72 following hours.
- Any injectable medication that calves receive should be injected in the neck unless otherwise recommended by veterinarian.
- When possible, the operator should receive the health records regarding medications received or any broken needles from the seller.
- Additional elements for your farm:
- _____
  _____
  _____

NOTE: Obviously sick calves include those that are dull, depressed and showing signs of dehydration, scours, respiratory distress and swollen navel or joints.



Adapted from "Marketing Health Calves" and used with the kind permission of the Producteurs de bovins du Québec.

HR 2.5.6 i) The point of purchase for each veal calf must be recorded in the *Veal Treatment and History Record's* point of purchase column. Each calf should arrive at the production site bearing an ear tag that is recognized by federal Health of Animals Regulations.

ii) If management **tags are used, they must be cross-referenced to the Canadian Cattle Identification Agency's (CCIA) tag under the federal Health of Animal Regulations.**-This identification is recorded in the *Veal Treatment and History Record* or an equivalent record.

HR 2.5.7 When pre-conditioned calves are purchased, they shall come from a source that participates in the Verified Veal Program. When purchasing calves, obtain the *Outgoing Veal Record* and transfer any pertinent information onto your *Veal Treatment and History Record* in the point of purchase column.

3.2 Veal Treatment and History Record (SAMPLE)

Date (d/m/y)	Veal ID	Point of Purchase	Mass treatment (feed medications, top dress, water or milk) : Lot number 16 – Onycin 1000 25 g/225L water per head treatment Feb 2-4, withrd rawal Feb 9 NC	Individual treatment						Comments (broken needle in calf, calf death, calf destruction, , compromised calf, mistake etc)
				Treatment Start Date (d/m/y)	Length of treatment (day)	Trade name of medication	Dosage and route	Do not ship before date (d/m/yr)	Done by initials	
5-01-11	982000008911498	Danville		23-02-11	3	Nuflor	x2-im	02-04-11	NC	
5-01-11	982000008911567	Danville		23-02-11	1	Micotil	2.5 - SC	23-03-11	NC	Broken needle
5-01-11	982000008911901	Danville		23-02-11	3	Super Scour Calf Bolus	2 boluses/d oral	25-03-11	NC	
5-01-11	982000008911433	Danville		23-02-11	3	Super Scour Calf Bolus	2 boluses/d oral	25-03-11	NC	Dead 28-02-11
18-01-11	775 000 201 786 993	Keady								
18-01-11	775 000 201 786 993	Keady								Compromised
18-01-11	775 000 201 786 993	Keady								
18-01-11	775 000 201 786 993	Keady								

Animal Health Products

MP 2.5.8 It is essential to establish, maintain and update a record of all medications to be used on the farm with your veterinarian. Only use approved animal health products according to provincial and federal regulations unless under prescription. This will be recorded in the *Recommended Animal Health Products Record.*

MP 2.5.9 All prescriptions required for medications are filed appropriately.

MP 2.5.10 The animal health products received at the production unit should be in properly labelled unopened containers.

Monitoring Procedures	Deviation Procedures
The operator:	If something goes wrong, the operator will:

- Checks the labels and visually inspects the animal health products before use to ensure the product delivered was the one requested. - Cross-references the product received with the record of all *Recommended Animal Health Products* and records any products prior to first use.	- Remove any unapproved animal health products from the veal production unit and return them to the supplier as soon as possible. - Record any new product received before using it in the *Recommended Animal Health Products Record.* - Retrain personnel responsible to prevent recurrence. - Record the corrective actions taken.
Records: *Recommended Animal Health Products Record (3.4), Prescription, Corrective Action Report (3.12)*	

3.4 Recommended Animal Health Products Record (SAMPLE)

Date (d/m/yr)	**Product name**	**Veal approved (V) Extra label (E)**	**Comments**	**Actual dosage used (ml/kg)**	**Route of administration**	**Withdrawal time in (days)**	**Storage location**
01-09-11	Penicillin		Vet recommendation: New script or dated phone call	**7/10 0**	**IM**	10	Fridge

Dosage: cc/(ml) per lb/(kg) of body weight

Route of administration: I/M: intramuscular, S/C: under skin, I/V: in vein, T/P: topically, P/O: orally

Prescriptions are filed appropriately or kept with the *Recommended Animal Health Products Record*. Any animal health product brought onto the farm must be included in this record. The record is reviewed with your veterinarian at least once a year or according to provincial requirements.

Medical Devices

SP 5.3

- All medical devices should be received at the production unit in their original containers and examined prior to first use to ensure that they are of the appropriate size and construction for their intended use.
- If used medical devices are purchased, they should be cleaned appropriately before use.

Other Materials

Pails, Nipples, Milk Distribution Lines, Ear Tags, Taggers, and Clippers

SP 5.4

- All new pails, nipples, milk distribution lines, ear tags, taggers, and clippers that are received at the production unit are examined upon arrival and before storage to ensure that they are visually clean.
- If these devices are purchased in used condition, they are cleaned appropriately.

Bedding

HR 2.5.11 Only use bedding made of natural materials such as straw, sawdust or wood shavings. Some processed materials (from recycled sources) could contain unknown chemical contaminants like formaldehyde, glue, adhesives and fiberglass. This is recorded in the *Producer Commitment*.

Farm Chemicals/Conditioners

SP 5.5

- All farm chemicals and conditioners should be examined when received at the production facility to ensure that they are the products that were ordered.

2.6 Storage

Materials must be of acceptable quality upon arrival and stored in such a manner as to prevent deterioration of quality and to keep them free from contamination.

Animal Health Products

Proper storage of Animal Health Products (AHPs) is critical in maintaining the potency of the products and protecting them from pathogenic contamination. Each product has an expiry date on the label beyond which the manufacturer will not guarantee its potency. Once a product has been opened, however, the product will lose potency at a much faster rate than a bottle that has not yet been opened. It is a good practice to check the seals of all AHPs when they are brought to the production facility to ensure they are intact.

Almost all vaccines require refrigerator storage between 2°C and 8°C. Freezing and/or storage above 10°C for extended periods may cause some vaccines to lose their potency.

MP 2.6.1 Injectable, oral and topical animal health products shall be:

- immediately stored according to label directions (i.e. in the refrigerator, protected from light or at room temperature).
- be stored in a clean, dust-free cabinet or fridge.
- stored in an identified, dedicated area; this area could include the medicated feed storage area.
- All products must be clearly identified.
- Expiry product must be discarded
- This is recorded in the *Producer Commitment*.

Monitoring Procedures	Deviation Procedures
The operator checks during the course of normal operations that: - All injectable or topical animal health products are stored in a clean, dust-free cabinet or in a refrigerator. - Products are properly labelled and stored to facilitate correct identification of the desired product. - All oral AHPs are stored in an identified, dedicated area.	If storage is inadequate, the operator must: - Review labeling, clean the container and correctly store the product as per the label. - Retrain the personnel responsible to prevent a reoccurrence. - Record the corrective actions taken.
Records: *Producer Commitment (3.1), Corrective Action Report (3.12)*	

Medical Devices

Medical devices should be stored in a clean, dry cupboard that protects them from dust, rodents and birds and prevents bacterial contamination.

SP 6.1

- All medical devices should be stored in a clean, dry enclosed space.

Feed

In this program, feed includes milk replacer, whole milk, calf starter, grain corn, protein supplement, roughage, mineral supplement or any other product fed to veal calves.

HR 2.6.2 Feed of all types shall be stored in such a way that it will be protected from the natural elements (i.e. rain or snow) and from biological hazards (i.e. manure or pests). Proper storage would include, as an example, a feed bin with a lid or bagged feed placed on a pallet. This is recorded in the *Producer Commitment*.

MP 2.6.3 Where multiple bins exist, they shall be identified to ensure errors cannot occur during delivery of feed or when removing feed from the bin.

MP 2.6.4 The area for storage of medicated feed shall be clearly marked with a medicated feed sign. The feed itself will have some obvious indication, on either the tag or container, of the nature of the medicated product and will be stored to prevent contact with non-medicated feed.

MP 2.6.5 When bulk medicated feed is used on-farm the bins must be identified as containing medicated feed . This is recorded in the *Incoming Feed Record*.

Monitoring Procedures	Deviation Procedures
The operator: - Checks that medicated feeds have separate, labeled storage areas prior to each delivery. - Check the bill of lading/label to ensure the proper feed was delivered.	If the feed is improperly stored, the operator: - Contacts the feed supplier to have the incorrect feed removed and replaced. The bin is temporarily relabeled to reflect that the contents are medicated. After removal of the medicated feed, the operator: - Cleans the bin and handling equipment. - Retrains personnel responsible to prevent recurrence. - Records the corrective action taken.
Records: *Incoming Feed Record (3.5), Corrective Action Report (3.12), bin number, medicated feed sign*	

3.5 Incoming Feed Record **(SAMPLE)**

Date (d/m/y)	Feed name	Supplier			For medicated feed			Stored (bin number or location)
		Produced on farm If yes, no sample is required	Purchased feed or Commercial processed feed		Name of medication (from feed label)	Mg of medication /kg of feed (from feed label)	Withdrawal in days (from feed label)	
			HACCP supplier Indicate batch number	Non-HACCP supplier Date of sampling (d/m/y)				
10-10-10	Corn	yes						1
09-03-11	Veal Milk Replacer	No	1234		chlortetracycline	55	5	2

Farm Chemicals/Cleaners

Care must be taken to avoid contamination of animal feed. Insecticides, fungicides, herbicides, rodenticides and petroleum-based products all pose a risk of accumulating in meat if they are improperly stored and accidently come in contact with the animals and/or feed.

MP 2.6.6 All farm chemicals and cleanrrs must be clearly identified and stored so not to contaminate feed. This is recorded in the *Producer Commitment*.

Monitoring Procedures	Deviation Procedures
The operator, during normal operations will: - Check during routine work that all the farm chemicals and cleaners are stored properly. - Ensure the labels are legible.	If storage is inadequate or containers are leaking, the operator will: -Immediately relocate the farm chemicals and cleaners to a separate area away from any feed. -Seek the advice of the supplier specialist for the use of the contaminated feed. -Clean the contaminated area. -Repackage the remaining product into non-leaking containers. -Retrain the personnel responsible to prevent recurrence. -Record corrective actions.

Records: *Producer Commitment* (3.1), *Corrective Action Report* (3.12)

Bedding

Where bedding is sourced, how it has been handled and stored will determine whether it contains pathogenic bacteria, parasites, or toxic chemicals. Rodents and birds frequently shed pathogenic bacteria such as *Salmonella* in their feces and can contaminate any bedding they have access to. Any attempt that can be made to decrease the presence of rodents and birds could greatly reduce the risk of contamination.

HR 2.6.7 Bedding shall be stored in an area separated from calves (a barrier or fence will suffice) to limit bacterial contamination and to control rodent activity. This is recorded in the *Producer Commitment***.**

Pails, Nipples, Milk Distribution Lines, Ear Tags, Taggers and Clippers

HR 2.6.8 Pails, nipples, milk distribution lines, ear tags, taggers and clippers that are not used daily must be stored in a clean, dry area to minimize biological contamination. Before this equipment is used it must be visually inspected and sanitized if necessary. This is recorded in the *Producer Commitment.*

Manure Storage

Always be aware of any provincial legislation regarding manure storage.

HR 2.6.9 Manure is stored in a separate area to prevent possible contamination of calves, feed, water and bedding through the direct or indirect contact of manure and its run-off. The manure storage area must be away from barn entrances and ventilation inlets. This is recorded in the *Producer Commitment*.

2.7 Equipment

Design, Installation and Maintenance

SP 7.1	
	• Manuals for all equipment that requires calibration or routine maintenance shall be maintained in a *Manual File* by the operator in order to facilitate repairs, maintenance, calibration and the ordering of parts.
• The equipment utilized in a veal production facility shall be designed, constructed, installed, calibrated and maintained in such a way that prevents contamination, disease transmission or injury. • Equipment and utensils shall be constructed of corrosion-resistant material that is able to withstand repeated cleaning and sanitizing. • Equipment shall be of an appropriate size for the intended use.	
• Equipment shall be installed so that it is accessible for routine cleaning, maintenance and inspection. • The operator will also ensure calibration is done following manufacturer's instructions.	

Medical Devices

A medical device is an apparatus or tool used by the operator to deliver medication to a calf. Hypodermic needles, oesophageal feeders and water medicators are all examples of medical devices.

1. Hypodermic needles and syringes shall be of the appropriate size and material to treat animals effectively.
2. Oesophageal feeders shall be of sound construction and of a size appropriate to the calves they are used on.
3. Water medicators are used to inject medication or water treatment products into the barn water system**.**

MP 2.7.1 Water medicators will be calibrated according manufacturer's recommendations before each treatment period to ensure accurate dosage. This is recorded in the *Veal Treatment and History Record.*

Monitoring Procedures	Deviation Procedures
The operator: - Confirms the dosage and the volume of water delivered before each treatment. (Know the exact amount of water that passes through the water medicator for 24 hours and then determine the correct dosage of medication.) -Ensure calibration is done according to manufacturer directions. - Completes the *Veal Treatment and History Record*.	The operator notices that an incorrect dose or product has been used, he/she will: - Seek veterinary advice to determine the revised withdrawal period and hold the calf if necessary. - Retrain personnel responsible to prevent a recurrence. - Record the corrective action and update the *Veal Treatment and History Record*.

Records: Veal Treatment and History Record (3.2), Corrective Action Report (3.12)	

Other Materials

Water Treatment Systems
If Water treatment systems that control pathogens are used, such as chlorination, ozone, ultra-violet technologies or peroxide, must be installed on-farm, adjusted properly and certified as operational according to manufacturer's recommendations. The system must be verified on an annual basis as per the Water Quality GPP.

Feed Proportioners, Scales and Metering Devices

When in use on the farm, feed proportioners, scales and metering devices should be calibrated as required. Farm operators should develop a calibration protocol for their operation (i.e. a 50 pound test weight).

Feed Mixing Equipment

SP 7.2 Feed mixing equipment is maintained according to the manufacturer's specifications.

Milk Replacer Distribution Systems, Pails and Nipples
Milk replacer distribution systems, pails and nipples shall be constructed in a manner that facilitates sanitation and these devices shall be maintained according to the manufacturer's specifications.

SP 7.3

- Refrigerators shall operate between 2◦C and 8◦C and shall contain a thermometer. **Note:** No record is required because the temperature on the thermometer is the evidence that the auditor will look for.
- Milk and refrigerator thermometers shall be calibrated annually.

2.8 Administration of Medication

Calves should be observed at least once daily for the incidence of disease. Farm operators should take appropriate actions such as treating sick calves quickly, segregating calf groups or individuals and seeking advice from a veterinarian if deemed necessary.

Medication

MP 2.8.1 All medications (injectable, oral, topical, medicated water or feed) are recorded in the *Veal Treatment and History Record* at the time that they are given to veal calves on the farm.

This includes:

- Date treatment began.
- Length of treatment.
- Identifying each calf that was treated.
- Name of medication.
- Dosage and route of administration.
- Withdrawal time (the do-not-ship-before date).
- Occurrence of broken needles.
- Medication administrator's initials (Refers to CCP- 1C *Section 1.9*).

Monitoring Procedures	Deviation Procedures
The operator: - Follows the prescription or label directions. - Confirms calf identification before treatment. - Records in the *Veal Treatment and History Record* any medications such as injectable, oral, topical, medicated water and feed, given at the time an animal is treated. -Records and observes the withdrawal date.	If the operator notices the wrong calf was treated, the wrong dosage was given or the wrong product was used he/she will: - Promptly seek veterinarian advice to determine the withdrawal period and hold the calf if necessary or respect the longest withdrawal period. - Update and correct the *Veal Treatment and History Record.* - Retrain the personnel responsible to prevent recurrence. - Record the corrective actions taken.

Records: *Veal Treatment and History Record (3.2,), Producer Commitment (3.1),Corrective Action Report (3.12)*

3.2 Veal Treatment and History Record (SAMPLE)

Date (d/m/y)	Veal ID	Point of Purchase	Mass treatment (feed medication s top	Individual treatment						Comments (broken needle in calf, calf death, calf destruction, , compromised calf, mistake etc)
				Treatment Start Date (d/m/y)	Length of treatment (day)	Trade name of medication	Dosage and route	Do not ship before date (d/m/yr)	Done by initials	

5-01-11	982000008911498	Danville		23-02-11	3	Nuflor	x2-im	02-04-11	NC	
5-01-11	982000008911567	Danville		23-02-11	1	Micotil	2.5 - SC	23-03-11	NC	Broken needle
5-01-11	982000008911901	Danville		23-02-11	3	Super Scour Calf Bolus	2 boluses/d oral	25-03-11	NC	
5-01-11	982000008911433	Danville		23-02-11	3	Super Scour Calf Bolus	2 boluses/d oral	25-03-11	NC	Dead 28-02-11
18-01-11	775 000 201 786 993	Keady								
18-01-11	775 000 201 786 993	Keady								Compromised
18-01-11	775 000 201 786 993	Keady								
18-01-11	775 000 201 786 993	Keady								

MP 2.8.2 When medicating calves using water, operators must follow the medicated water protocol. This is recorded in the *Veal Treatment and History Record.*

Monitoring Procedures	Deviation Procedures
At the time of treatment, the operator will ensure: -Products are properly labeled and stored to ensure correct identification of the desired product. -The correct product is selected. -The correct dosage is confirmed. -The correct identification of animals to be treated and if a group, the pen is marked accordingly. -The *Veal Treatment and History Record* is completed.	The operator notices the wrong dosage or the wrong product was used, he/she will: -Promptly seek veterinary advice to determine the revised withdrawal period and hold the calf if necessary or respect the longest withdrawal period. - Update or correct the *Veal Treatment and History Record*. -Retrain personnel responsible to prevent recurrence. -Record corrective actions taken.

Records: *Veal Treatment and History Record (3.2), Corrective Action Report (3.12)*

Medicated Water Protocol

- Water lines must be identified.
- Always check the expiration date of any medication used.
- Always follow the drug withdrawal period when water medicating.
- Refer to *Section 2.7.1* for the water medicator confirmation approach.
- Water medicators used for medication will be flushed with potable water at the end of the treatment period.
- **Additional elements for your farm:**
- _____
  _____
  _____

Extra Label Use of Drugs

Unsupervised extra label drug use is the most common cause of possible drug residue in food animals. The Canadian Food Inspection Agency's (CFIA) National Chemical Residue Monitoring Program routinely monitors veal market animals for a wide variety of drugs. Reducing the withdrawal period by even a day increases the risk of marketing an animal with residue above the tolerance level. Increasing the dosage also requires a longer withdrawal time.

Extra label use of a medication occurs whenever the drug is:

- Given at a different dosage.
- Administered through a different route (i.e. intramuscular rather than subcutaneously).
- Given for a different duration or frequency.
- Administered at a different age or stage of production.
- Given to a different species.
- Used in a different form of feed.
- Used for a different purpose other than what is stated on the label.
- Not approved by the Veterinary Drug Directorate or Health Canada and, therefore, has no Drug Identification Number (DIN). Medications used without a DIN require a veterinary prescription and must meet federal and provincial legislative requirements.

Extra label drug use is not permitted in Canada unless:

- There is veterinary supervision.
- No approved alternate product with the same efficacy exists.
- A valid veterinary–client-patient relationship exists supported by signed, dated directions for the extra label use or a completed prescription.

This prescription, or signed paper, indicates the extra label dose and revised withdrawal time that should be observed. In Quebec, a veterinarian's prescription will serve this purpose. Each province has its own regulations and rules (in Quebec, a prescription is needed from the veterinarian to obtain any medication but the situation is different in Ontario) and producers must follow those provincial rules.

Veterinary –Client-Patient Relationship

MP 2.8.3 It is legally required for the producer to have a prescription or a written, dated, and signed paper from the herd veterinarian when using extra label drugs.

MP 2.8.4 A valid veterinary-client-patient relationship (VCPR) shall exist between the farm operator and the herd veterinarian.

A VCPR outlines:

- That a licensed veterinarian should be responsible for the medical judgments regarding the health of the farm animals.
- That the veterinarian must have a working knowledge of the health status of the herd either from a physical examination of the animals in question or from regular visits to the farm, at least once a year or according provincial requirements, and must be available for follow up care if necessary.
- That the client, in turn, agrees to follow the veterinarian's instructions.

Injection Technique

MP 2.8.5 An appropriate injection technique will be used as directed by the herd veterinarian's protocol. This is recorded in the *Producer Commitment.*

Monitoring Procedures	Deviation Procedures
The operator will, at each treatment: -Follow the proper injection technique protocol.	The operator notices, during day to day farm management, infection at the injection site in the calves and he/she will: -Review the injection technique and seek veterinary advice. -Retrain the personnel responsible prevent recurrence. -Record the corrective actions taken. The operator notices a possible broken needle in the calf and he/she will: -Identify the veal calf immediately. -Remove the needle from the skin if possible. -Record any possible broken needle in the *Veal Treatment and History Record.* -Review the incident with the person responsible and retrain if

	necessary to prevent recurrence. - Record the corrective actions taken. The operator notices the wrong calf was treated or the wrong product was used or the wrong dosage was delivered, he/she will: - Determine the withdrawal period and hold the calf or respect the longest withdrawal period. - Update or correct the *Veal Treatment and History Record.* - Retrain the personnel responsible to prevent recurrence. - Record the corrective actions taken.
Records: *Producer Commitment (3.1), Veal Treatment and History Record (3.2),Corrective Action Report (3.12)*	

Injection Technique Protocol

An injection technique protocol must include:

- Identifying the proper veal calf to be treated.
- Ensuring the animal health product selected is the product desired.
- Always injecting calves in the neck just in front of the shoulder or according to the veterinarian's directions.
- Never straightening or re-using a bent needle.
- Cleaning and disinfecting, if applicable syringes and needles after each use or drug sequence and never leaving a needle sticking out of the cap of a bottle of medication.
- Check the expiration date of the medication before use.
- Discarding needles in a sharps container or equivalent.
- Ensure syringues distribute good dosage
- **Additional elements for your farm:**
- _____
  _____
  _____
  _____

SP 8.1Suggested Practices for an Injection Technique

Follow these steps to properly inject veal calves:

Before injecting:

1- Always read, understand and follow directions on the veal approved animal health product medication labels and package inserts.

2- Check the expiration date before each treatment.

3- Do not combine medications in the same syringe. This has the potential to neutralize the activity of one or both of the products. The combination of medications may also cause a reaction at the injection site.

4- Consult the herd veterinarian whenever a new medication is acquired or if there is any doubt about proper usage.

5- Use "detectable needles" instead of plastic-based needles.

6- Always disinfect the cap of a medication bottle with alcohol, chlorhexidine, or other appropriate disinfectant before putting a needle through it. As well, be sure to use a clean needle, rather than one that has already been used to inject an animal.

7- Use a clean transfer needle, so dirty needles or syringes do not contaminate medications.

To inject the animal properly:

1- Identify the right calf.

2- Prepare and disinfect the injection site.

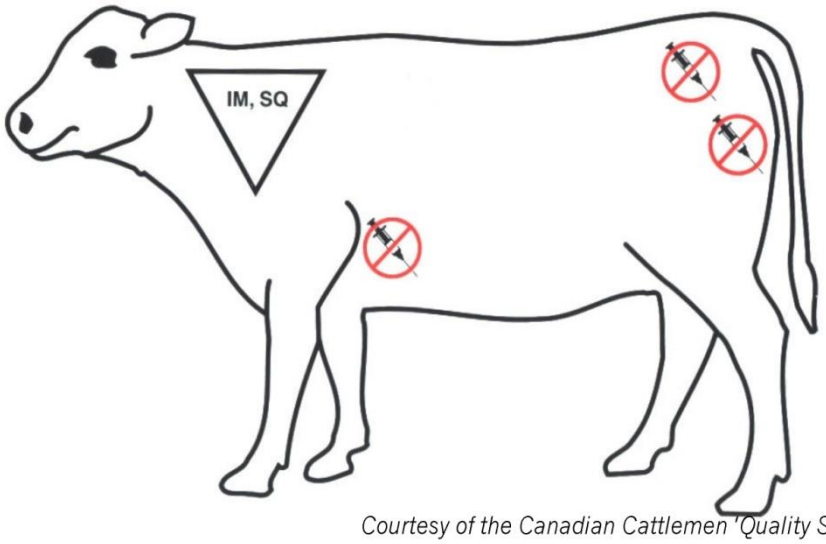
3- Attempt to minimize the amount of medication at any one injection site.

4- Use the proper technique: on an angle using the "tented" method for subcutaneous injections and on a 90-degree angle for intramuscular injections.

5- Where the option exists on labelled directions, give the medication subcutaneously to reduce tissue inflammation.

6- Visually inspect the needles after each injection.

"Proper Injection Sites / Techniques"



Courtesy of the Canadian Cattlemen 'Quality Starts Here'

Medical Devices

For information relating to the cleaning and disinfecting of oesophageal feeders, medication containers and water medicators, see *Section 2.11* Cleaning and Sanitation. Needles come in various gauges (diameters) and lengths. Some are made of stainless steel and designed for repeated use.

Needles

HR 2.8.6 Never straighten or re-use a bent needle. This is recorded in the *Producer Commitment*.

Animal Health Products and Medical Device Disposal

HR 2.8.7 All expired medication and medical devices are to be disposed of according to current provincial regulations or municipal by-laws. This is recorded in the *Producer Commitment.*

2.9 Water Quality

Good quality water is important in the production of a good quality animal and is assessed by addressing two factors—contamination and basic water quality.

i. **Contamination** is determined by both bacterial and chemical analysis to detect the presence of coliforms and fecal streptococcus bacteria, as well as high nitrate and nitrite levels.
ii. **Basic water quality** is determined by chemical analysis to establish the level of total hardness. Iron and copper are two metals that should also be monitored when feeding veal calves.

In addition, the pH (level of alkalinity or acidity) of water is also important. The pH of the farm's water source may determine the type of chemical treatment used. Therefore, if water treatment is required, check the pH level first. In water with a high pH level (the water is alkaline), the effectiveness of chlorination as well as other disinfectants in the iodine and cresol/phenol categories use to kill water borne bacteria is reduced. Water-soluble tetracycline medications are also affected by a high water pH as they do not go into suspension well in this environment. Similarly, water-soluble sulfa medications do not go into suspension well in an acidic environment, and disinfectants in the quaternary ammonium category, as well as chlorhexidine and lye, have reduced effectiveness.

It is important to note that most milk replacers dissolve best in water that is the correct temperature (50◦C to 60◦C) and at a neutral pH of about 7.2.

Water Source

Along with contamination and basic water quality, the farm's actual water source is very important regardless of whether it comes from a drilled well, a municipal source or surface water.

Drilled wells (80 feet plus) usually provide good quality water. Shallow dug or bored wells are more prone to ground water contamination and higher nitrate levels.

Municipal source water is usually tested for chemicals and bacteria by the municipality according to the provincial regulations.

Surface water is another viable water source option. However, when surface water from ponds, lakes and streams is used, water treatment is necessary to ensure high quality water is being given to calves.

Date of Sampling (d/m/y)	Name of Laboratory	Result of Test	Result of Retest	Corrective Action

HR 2.9.1 Water from all sources used for animal production shall be tested annually for the mandatory parameters by a provincially certified laboratory. Samples sent for analysis must be taken from the source closest to the end use. This is recorded in the *Water Quality Record.*
HR 2.9.2 Copies of the laboratory reports will be kept on file for a minimum of two year. File these laboratory reports with the *Water Quality Record*.

Monitoring Procedures	Deviation Procedures
The operator will: - Test the water annually, preferably in the spring or fall, to ensure that the levels are within the acceptable limits for the evaluation of water quality.	If the water test results exceed the acceptable limits, the operator will: -Take a second round of water tests from the source closest to the point of entry in the production facility and a source closest to the end use for the parameters in excess of the limits. If one or both of the subsequent water test results still exceed the acceptable limits, the operator will: -Take steps to meet the limits, such as well disinfection and installation of a water treatment system. A retest of the water is necessary to prove the effectiveness of the treatment. -Retrain personnel to prevent recurrence -Record corrective actions in the *Water Quality Record.* If any calf consumes contaminated water, the operator will: -Place the calf under strict observation for any sign of illness.

Records: *Water Quality Record (3.10), Water Test Results*

HR 2.9.3 If a water treatment system is used, it shall be monitored monthly. This procedure could include performing any required maintenance, changing the filters or calibrating the pump. This is recorded in the *Water Quality Record*.

HR 2.9.4 If water storage is necessary, it should be kept in closed containers or tanks.

SP 9.1

- If the water treatment includes a chlorine product, allow at least 20 minutes for the treatment to work.

Date of Sampling (d/m/y)	Name of Laboratory	Conforms to the acceptable limits	Outside of the acceptable limits, indicate date of retest (d/m/y)	Conform to the acceptable limits	Outside of the acceptable limits	Corrective Actions
25-01-05	Lennoxville	Yes				
25-01-06	Lennoxville	No	02-02-06	Yes		
25-01-07	Lennoxville	No	02-06-07	No	E. coli	Chlorine added

3.10 Water Quality Record (SAMPLE)

The acceptable limits for water quality appear in the following table (modified from Bureau de normalisation du Québec (BNQ) Factsheets NQ 8050-110 Milk-fed Veal and NQ 8050-105 Grain-fed Veal, 2002). These may be subject to certain provincial standards.

Acceptable Limits for the Evaluation of Water Quality	
Parameters	**Maximum Levels**
Mandatory:	
Total coliforms	10 CT/100mL
Fecal coliforms (i.e. *E. coli*)	0 CF/100mL
Fecal enterococcus	0 SF/100mL
Nitrates	10 mg/L
Nitrites	0.1 mg/L
Recommended :	
pH	6.5-8.5
Iron*	0.1 mg/L
Copper*	1.0 mg/L
Total Hardness	Less than 200 mg/L

*Iron and copper are not human food safety issues but do have an impact on carcass quality.

2.10 Medicated Feed Mixing and Distribution

Complete grain-based feeds are formulated by weight but are usually mixed by volume. It is, therefore, not uncommon for errors to occur when mixing medicated feed since the medication or medicated premix is added in a relatively small volume. The same is true with milk replacer since a relatively small amount of medication is added to the milk. This is the most common cause of possible feed contamination that leads to residue in veal calves.

Federally inspected abattoirs conduct a Swab Test on Premises (STOP) on suspicious veal carcasses and the Canadian Food Inspection Agency's (CFIA) National Chemical Residue Monitoring Program routinely monitors veal market animals to provide assurance that chemicals that may be present in meat are below the maximum residue levels.

The Feeds Act and Regulations describe the methods currently approved.

These practices are outlined further in the Grain-fed Medicated Feed Mixing and Distribution Protocol.

Chemical residues can result from the mistaken or the inaccurate addition of medicated feed to non-medicated feed.

Mixing Grain-Based Feed

In order to avoid contamination with prohibited or medicated feed destined for other species that could be on the farm, the feed mixing and distribution equipment must be dedicated to veal production.

MP 2.10.1 Feed mixers and distribution equipment in veal operations may not be used for mixing feed for other species. This is recorded in the *Producer Commitment.*

Monitoring Procedures	Deviation Procedures
The operator: -Ensures that the mixing and distribution equipment is dedicated to the ruminant operation.	If the operator notices that the equipment has been used for feed other than that for ruminants, he/she will: -Immediately begin the flushing, sequencing or cleaning approach as directed in the Grain-fed Medicated Feed Mixing and Distribution Protocol. -Determine the causes of the deviation and retrain the personnel responsible to prevent recurrence. -Record the corrective actions taken.

Records: Producer Commitment (3.1), Corrective Action Report (3.12)

Medicated Feed Mixing: The on-farm mixing of medicated feed that has a withdrawal period is an important tool used in animal production. When a group of calves is sick, feed provides a convenient route for administering medication. However, there are hazards associated with mixing medication in the feed. These hazards include the wrong animal health product being used, the wrong dosage administered and the medicine being given to the wrong calves.

There are simple production practices that producers can follow to prevent drug residues in the meat. They include sequencing of feed, flushing with a non-medicated feed and cleaning the equipment.

MP 2.10.2 When medicated feed with a withdrawal period is mixed on farm, the Grain-Fed Medicated Feed Mixing and Distribution Protocol must be followed. The appropriate information is recorded in the *Medicated Feed Mixing Record,* and *Veal Treatment and History Record.*

Monitoring Procedures	Deviation Procedures
The operator: - Follows the prescription and the Grain-fed Medicated Feed Mixing and Distribution Protocol at each feed mixing.	When the operator notices the wrong product or the wrong dosage was used, that cross-contamination has occurred, or the sequencing and flushing procedures have not been followed, he/she will: -Apply the new withdrawal time of the suspected product, upon veterinarian counsel. -Upon veterinarian counsel redirect, if possible, the feed to a suitable group of calves. -Determine the causes of the deviation and retrain the personnel responsible to prevent recurrence. -Record the corrective actions taken.
Records: *Medicated Feed Mixing Record (3.6), Veal Treatment and History Record (3.2), Prescription, Corrective Action Report (3.12)*	

Grain-fed Medicated Feed Mixing and Distribution Protocol

-Always make sure employees are properly trained to mix medicated feed.
-Record the medication given to the group of calves in the *Veal Treatment and History Record*. Indicate the pen number, the start and end date of the treatment and the withdrawal date.
-Record the medicated batch of feed in the *Medicated Feed Mixing Record.*
-Always check that you are using the desired product and that it has not expired.

Instructions to Prevent Using the Wrong Animal Health Product:

- Follow the prescription and/or label directions.
- Have all animal health products clearly labelled and stored according to their label.
- Make sure the animal health product being used is listed in the *Recommended Animal Health Products Record*.

Instructions to Prevent the Wrong Dosage from Being Mixed:

- Follow the prescription given by the herd veterinarian because the correct dosage and mixing directions will be indicated.
- Ensure your scale for determining the medication amount is calibrated.
- Ensure the scale on the mixer unit is calibrated so you know the total volume of the feed being mixed. This known weight is necessary to determine the amount of medication required.
- Follow the manufacturer's directions for mixing time when preparing the feed ration. This should allow for the medication to be evenly mixed throughout the batch.
- Mixer performance is crucial to ensure that an even dosage of medication is distributed in the batch of feed. Always keep the mixer in good working condition. Replace parts such as paddles, augers and beaters as they wear because that will affect the feed mixing performance and prevent an even mix.

Instructions to Prevent Medicated Feed from Going to the Wrong Calf:

- Have pens or lots of calves properly identified. Make sure all calves are individually identified. Record calf numbers in the *Veal Treatment and History Record*.
- When medicated feed with a withdrawal period is mixed and ready to distribute, always identify the correct pen of calves to feed.
- Always have commercial medicated feed stored in a labelled, dedicated bin or, for bags, in an identified area.

Keys to Prevent Residues in the Next Batch of Feed:

1. **Sequencing:** If you prepare feed batches for two production stages of calves, for example, calf starter and calf finisher, and the starter ration is medicated, then feed the medicated starter ration last one day and first the next. This is called sequencing and results in the need for fewer flushing and cleaning events. This practice saves time and is an effective way of managing drug residues in equipment.
2. **Flushing:** This involves passing a substance (i.e. corn) through the mixer to remove any remaining residues from the previous batch of feed. This reduces the risk of drug residues being passed from one batch of feed to another, thus preventing the wrong group of calves from getting drug residues. The amount of flushing material (corn) depends on the size and kind of mixer. Typically, five to ten percent of the mixer capacity (i.e. 100 kilograms as a minimum) is sufficient. The last batch is made and then top-dressed with the flushing material. This practice greatly reduces the chance of cross-contamination, the wrong calf

receiving unwanted medication, and residue build-up.

3. **Cleaning:** Always look for hang-ups or pockets of feed remaining in the mixer and delivery equipment. If it was medicated feed, then that may cause cross-contamination. Dead spots in the mixer may also cause a problem. Any medicated feed not moved out should be removed by opening the access doors and sweeping or vacuuming the product out. A completely cleaned mixer poses no hazard of cross-contamination.

Additional elements for your farm:

_____
_____
_____
_____
_____

SP 10.1

- When feeding pet food in the production facility, care must be taken so that cross-contamination does not occur with the veal feed.

Mixing Milk Replacer

Milk-fed calves should be fed properly formulated milk replacer at the frequency and in the quantity recommended.

Mixing Medicated Milk:

On-farm mixing of medicated feed that has a withdrawal time is an important tool used in animal production. When a group of calves is sick, feed provides a convenient route for administering medication. However, there are hazards associated with mixing medication in the feed. Hazards that could arise include the wrong animal health product used, wrong dosage given, and the medicine being given to the wrong calves. Producers must have control measures in place when preparing medicated milk or milk replacer solution in order to prevent calves going to market with drug residues.

There are simple production practices that producers can follow to prevent drug residues in the meat. They include sequencing of milk solution, flushing with a non-medicated batch of milk, and cleaning of equipment.

MP 2.10.3 When medicated milk with a withdrawal time is mixed on the farm, the Medicated Milk Mixing and Distribution Protocol must be followed.

Monitoring Procedures	Deviation Procedures
The operator:	If the operator notices the wrong product or the wrong

- Follows the prescription or label directions for mixing the milk. -Follows the Medicated Milk Mixing and Distribution Protocol at each feed mixing. -Completes the *Medicated Feed Mixing Record* after each feeding.	dosage was used, cross-contamination has occurred or the sequencing and flushing procedures have not been followed, he/she will: - Apply the withdrawal time of the suspected product upon veterinary counsel. -Seek advice from herd veterinarian about redirecting the feed to a suitable group of calves. -Determine the causes of the deviation and retrain the personnel responsible to prevent recurrence. -Record the corrective actions taken.
Records: *Medicated Feed Mixing Record* (3.6), *Veal Treatment and History Record* (3.2), *Prescription, Corrective Action Report* (3.12)	

Medicated Milk Mixing and Distribution Protocol

- Mixer tubs and propellers should be made of material that facilitates cleaning (i.e. stainless steel).
- Follow the milk replacer manufacturer's directions for proper preparation of their product, which should indicate water temperature and mixing time. When necessary, adapt the mixing time according to the manufacturer's directions for use.
- Always make sure employees are properly trained to prepare medicated milk replacer solutions.
- Record the medication given to the group of calves in the *Veal Treatment and History Record*. Be sure to indicate the room number, the start and end date of the treatment and the withdrawal date in the record.
- Record the mixing of milk replacer in the *Medicated Feed Mixing Record.*
- Always check that you are using the desired product and that it has not reached its expiration date.

<u>Instructions to Prevent Using the Wrong Animal Health Product:</u>

- Follow the prescription and/or label directions.
- Have all animal health products clearly labelled and stored according to their label.
- Make sure the animal health product being used is listed in the *Recommended Animal Health Products Record*.

<u>Instructions to Prevent the Wrong Dosage from Being Mixed:</u>

- Follow the prescription and calculate the amount of medication that needs to be added to the batch of milk replacer solution according to the number of calves being fed.
- Ensure your scale for determining the medication amount is calibrated.
- Ensure the scale on the mixer unit is calibrated so you know the total volume of the milk replacer solution being prepared.
- Follow the milk replacer manufacturer's directions for proper preparation of their product, which should indicate water temperature and mixing time. When necessary, adapt the mixing time according to the mixer manufacturer's directions for use. The medication is added while the cold water is added into the mixer tub and allowed enough mixing time.

This should allow for the medication to be evenly distributed throughout the batch of milk replacer solution.

- Mixer performance is crucial to ensure that the dose of medication is evenly distributed in the batch of milk replacer solution. Always maintain the mixer in good working condition. Replace parts such as propellers and motors as they wear for optimal mixing performance and to ensure an even mix.

Instructions to Prevent any Medicated Milk from Going to the Wrong Calf:

- Have rooms or lots of calves properly identified and ensure all calves are individually identified as well.
- When medicated milk solution with a withdrawal period is prepared and ready to distribute, always identify the correct group of calves to feed. Record calf numbers in the *Veal Treatment and History Record*.
- Always have commercial medicated milk replacer stored in a properly identified area.

Keys to Prevent Residues in the Next Batch of Milk Replacer Solution:

1. **Sequencing:** If you prepare milk batches for two production stages of calves, for example starter feed and finisher feed, and the starter ration is medicated, then feed the medicated starter ration last on one day then first the next during the medicating period. This is sequencing and reduces the number of flushing and cleaning events required. This practice saves time and is an effective way of managing drug residues.
2. **Flushing:** This is passing a substance (i.e. water) through the mixer and pipe line to remove any remaining residues from the previous batch of milk solution. This reduces the risk of drug residues being passed from one batch of milk to another, thus preventing the wrong group of calves from getting drug residues. The amount of flushing material (water) depends on the mixer and the length of the milk line. Run water through the milk line until there is only water coming out.
3. **Cleaning:** There is no specific cleaning procedure after preparing medicated milk replacer solution. The cleaning procedure is the same as the one to clean the system after each feeding time.

Additional elements for your farm:

_____
_____
_____
_____

3.6 MEDICATED FEED MIXING RECORD (SAMPLE)

Date (d/m/y)	Pen or barn #	Type of mix	Amount of Mix	Medicationused	Amount of Medication in finished feed (mg/kg)	Withdrawal time	Mixer person (initials)	Flushing	
								Date (d/m/y)	Initials

07-03-2011	1	grower	1000 kg	chlortetracycline	55	5	AJ	07-03-11	BW
07-03-2011	**2**	**finisher**	**1000 kg**	**N/A**			**AJ**		

2.11 Cleaning and Sanitation

Sanitation is the process of reducing the number of microorganisms in a specific area. It is composed of three phases—cleaning, disinfecting and drying.

i. Cleaning:
The animal holding area shall be cleaned and organic matter (manure) should be removed.

ii. Disinfecting:
After cleaning, the animal holding areas should be disinfected. Always use the appropriate disinfectants and handle them according to manufacturer's recommendations.

iii. Drying:
Bacteria require humidity to thrive; therefore, to have an optimal sanitation program, sufficient drying time is required.

Good sanitation helps to reduce the number of disease-causing (pathogenic) bacteria in a barn. *Salmonella*, for example, can survive for a year in manure and, while selection of the appropriate disinfectant is important, mechanical removal of the manure is essential to reduce numbers of and control this organism.

Overcrowding, inadequate ventilation, leaky plumbing and faulty drainage can all contribute to a build-up of moisture in the barn. Moisture encourages the growth of bacteria. By reducing humidity and maintaining good sanitation producers can reduce the level of disease causing bacteria and therefore the need for antibacterial medications. The protocol for sanitation will vary depending on whether the facility is a continuous flow or an all in–all out operation. In addition, all manure should be stored according to municipal and provincial regulations. Adapt your own sanitation plan to the activities of your farm.

Farm Buildings

HR 2.11.1 The area for incoming calves shall be cleaned and disinfected prior to their arrival.

i. In all in–all out operations, animal housing areas shall stand empty for a minimum of five days after they are cleaned and disinfected. This allows time for them to dry before repopulation.

ii. In continuous flow operations, routine cleanouts and application of disinfectants are essential. Drying periods are variable.

iii. Calf hutches must be cleaned and disinfected before the arrival of every new calf and fresh bedding must be provided as required.

This is recorded in the *Producer Commitment*.

General Housekeeping

SP 11.1

- All walls, ceilings and windows will be swept down at least once per year.
- Milk preparation area is cleaned daily. A weekly visual inspection will be done to ensure the area is clean.

Equipment

HR 2.11.2 All equipment used in the preparation and distribution of milk, with the exception of automated calf feeders, will be cleaned after each use. This includes nipple pails, bottles and nipples. A weekly visual inspection will be done to ensure equipment is free of organic material build-up. This is recorded in the *Producer Commitment.*

HR 2.11.3 Automated calf feeders will be cleaned and disinfected according to manufacturer's recommendations. This is recorded in the *Producer Commitment.*

HR 2.11.4 All equipment dedicated to the handling and distribution of feed for grain-fed veal must be visually inspected weekly to ensure equipment is free of organic material build-up. This is recorded in the *Producer Commitment.*

SP 11.2

- Individual calf pails are cleaned before a new calf enters the stall or hutch.
- Individual calf pails are cleaned when organic material begins to accumulate in or on the pail.
- When a calf does not consume its entire milk portion (typically in 15 minutes), the remaining milk is redistributed or discarded

MP 2.11.5 Medical devices must be effectively cleaned and disinfected after each use or sequence of use. This is recorded in the *Producer Commitment*.

Monitoring Procedures	Deviation Procedures
The operator at each treatment will: -Perform visual inspections to ensure that the medical devices are clean when not in use.	If the operator notices during the day to day farm management that the medical devices are not clean, he/she will: -Clean all dirty medical devices immediately. -Retrain the personnel responsible to prevent recurrence. -Record the corrective actions taken.
Records*: Producer Commitment (3.2), Corrective Action Report (3.12)*	

Guidelines for the Cleaning and Sanitation of Injection Equipment and Premises

Disinfectants that are safe for sterilizing injection equipment include quaternary ammonium, chlorhexidine, iodine and alcohol. Any disinfectant that remains in a syringe or needle can be harmful if injected into an animal and will inactivate Modified Live Virus (MLV) vaccines. Therefore, if injection equipment has been

chemically disinfected, it must be well rinsed in hot running water before reuse. Syringes and needles will be cleaned and disinfected after each use.

Individual calf pails are cleaned and disinfected before a new calf enters the stall, pen or hutch and, when deposits begin accumulating on their surfaces.

Walls and ceilings of milk preparation areas are covered with water impervious material. The floor will be made of cement and should have a drain.

Disinfectant

By sanitizing (cleaning and disinfecting) you break the cycle of disease and, over time, reduce the need for medications and antimicrobials. The most commonly used disinfectants fall into one of the following classifications:

- Phenols or cresols.
- Chlorines.
- Quaternary ammonium compounds.
- Iodine-based.
- Formaldehydes.
- Chlorhexidine.
- Lye (sodium hydroxide).

A number of factors affect the effectiveness of different disinfectants. For example:

- Phenols and cresols remain active in the presence of organic matter (manure) and are therefore preferred for footbaths. These footbaths should be changed as visibly required. Phenols and cresols are also more effective at higher temperatures**.**
- Chlorines and iodines are quickly inactivated by organic matter and tend to lose some of their activity in hot water.
- Chlorines, iodines and phenols work best in an acidic pH.
- Quaternary ammonium compounds are most effective in an alkaline environment.

The labels of some volatile disinfectants such as chlorine, phenol and formaldehyde carry warnings about ventilating the building after disinfecting; that is, before humans or animals are permitted to reenter it.

When disinfectant products are used, the safety instructions on the container must be followed and the user must be familiar with the precautions that must be taken.

In all cases, the effectiveness of the disinfectant used depends on a variety of influences. The following chart, Common Disinfectants (Ontario Ministry of Agriculture, Food, and Rural Affairs, Ontario Swine Medicines Course) offers an overview of commonly used disinfects and what can influence their effectiveness.

Refer to your veterinarian, technician, suppliers etc. to find answers about items in question to clean.

Common Disinfectants for Use in the Verified Veal Program

Properties	Quaternary Ammonium compounds	Chlorhexidine	Iodines	Chlorines	Cresols/ Phenols	Lye	Formaldehydes	Alcohol
Active in Hard Water	SLOW	OK	OK	OK	Cr. POOR Ph. OK	OK	OK	OK
Resistant to Manure	POOR	POOR	POOR	POOR	EXCELLENT	GOOD	GOOD	GOOD
Effective PH Range	ALK	ALK	ACID	ACID	ACID	ALK	NO EFFECT	NO EFFECT
Damage Surfaces	NO	NO	NO	YES (Stainless Steel)	NO	YES	YES	NO
Kill Bacteria	SOME	SOME	MOST	MOST	MOST	MOST	YES	MOST
Kill Viruses	SOME	NO	SOME	SOME	SOME	YES	YES	SOME
Use in Footbaths	NO	NO	Only with frequent changes	NO	YES	NO	NO	NO
Use in Buildings	YES	YES	YES	YES	YES	YES	YES	NO
Use with Animals	NO	YES	YES-less than 5% concentration	NO	NO	NO	NO	YES
Use with Instruments	YES	YES	YES	NO	NO	NO	NO	YES

Electrical Ventilation System

SP 11.3

- Where an active ventilation system is in place, fan blades and units shall be cleaned by the operator at least twice per year.

Calf Cleanliness

Clean calves create less risk of contamination. Fecal matter embedded in the calf's hair increases the opportunity for bacterial cross-contamination of the carcass at the time of slaughter. In addition, producers who market dirty calves are financially penalized.

SP 11.4

- Clip long hair of calves in stalls.
- Add bedding
- Provide adequeate space per calf as suggested in the manual in SP 1.3.

HR 2.11.6

i) Veal calves shall be sufficiently clean at all times. This means that seventy-five percent of calves have less than thirty per cent of the surface of their abdomen coated with manure.

ii) At shipping, the operator must evaluate calves' cleanliness and record the action in the *Outgoing Veal Record*.

2.12 Transportation and Shipping

Animal Shipping

The transport of animals falls under the control of Health of Animals Regulations, Transportation of Animals – Part 12 and is summarized in the Recommended Code of Practice for the Care and Handling of Farm Animals – Transportation, Section 4.3 (National Farm Animal Care Council).

Animal loading and shipping involves putting animals on a truck and moving them from farm to farm or to the processing plant. Transport vehicles should be clean so they do not contribute to contagious disease transmission or contamination of the calf by way of chemical contact.

The shipment of a veal calf to an abattoir prior to the completion of an animal health product's withdrawal period is identified as **CCP-1C**. The shipping of a veal calf without recording the existence of a broken needle is identified as **CCP-2P**.

Stress is defined as any physical or psychological discomfort. Studies have shown that stress results in reduced feed conversion, greater production of manure, decreased immunity levels to and increased excretion rates of pathogenic bacteria in the feces. Stress will also trigger clinical sickness in animals with subclinical disease; therefore, every effort shall be made to reduce stress during routine handling, loading, and transport of veal calves. For example, calves that are moved individually or in small groups are less prone to injury. The least amount of force necessary should be used while loading and unloading calves.

HR 2.12.1 All animals leaving the veal facility shall bear an ear tag recognized by the Federal Health of Animals Act and other identification as required by the appropriate provincial veal organization.

MP 2.12.2 **i)** Prior to shipment to the packing plant, every animal's *Veal Treatment and History Record* is reviewed to ensure that the withdrawal times have been respected and that no possible broken needles remain in the calves due to inadequate injection technique (CCP-1C and CCP- 2P).

ii)Prior to shipment to a barn staffed by a different person or to a new owner, every animal's *Veal Treatment and History Record* is reviewed to ensure that the information regarding withdrawal times and occurrence of possible broken needle is transmitted (CCP-1C and CCP-2P).

MP 2.12.3 A completed and signed *Outgoing Veal Record* accompanies all veal calves to market, a barn staffed by a different person, or to a new owner (CCP-1C and CCP-2P).

Monitoring Procedures	Deviation Procedures	Verification Procedures
Prior to shipping calves the operator will: -Ensure that the *Veal*	In the event a calf goes to a barn staffed by a different person with a withdrawal	At least annually, an individual other than a person doing the monitoring will:

Treatment and History Record is reviewed to ensure that the withdrawal period has been respected. -Ensure that this information is transferred to the *Outgoing Veal Record*. -Ensure a completed, dated and signed *Outgoing Veal Record*, which includes any animals subjected to a drug withdrawal period or possible broken needles, accompanies all veal calves to the packing plant, new owner or barn staffed by a different person.	period that is not recorded in the *Outgoing Veal Record*, the operator will: - Contact the person receiving the calves immediately to identify the calves. In the event the Outgoing Veal Record is not sent with the calves, the operator will: -Contact that person and have the information relayed as quickly as possible. In the event calves were shipped to the packing plant without having respected the withdrawal period, before arrival at the plant, the operator will: -Contact the trucker to have the affected calves returned. The affected veal calves are segregated and held until after the drug withdrawal period has elapsed. -Contact the packing plant to inform them of the situation. In the event calves were shipped to the packing plant without having respected the withdrawal period, after arrival at the plant, the operator will: - Contact the packing plant to inform them of the situation. In the event a calf goes to	-Review the activities and records. - in the case of a sole operator. He must ask another person to review their records i.e. herd veterinarian, technician, neighbor, etc.. The verification might include: -Reviewing a sampling of records (3.2 and 3.3) to ensure veal calves were shipped to the packing plant after completion of their withdrawal period and to ensure veal calves have been crosschecked for the presence of a possible broken needle. -Reviewing of the *Corrective Action Report* in case a deviation was noted. - Observing employees at work to ensure they are following procedures. The verifier will sign and date the *Verification Record* to this effect.

	the next owner with a possible broken needle that is not recorded in the *Outgoing Veal Record*, the operator will: - Contact the new owner immediately to identify the calf. . For all of the above situations, the operator will: - Review the appropriate records to find information that could have contributed to the deviation to prevent recurrence. - If the deviation is the responsibility of a farm employee, the operator will review with that person and provide re-training if necessary to prevent recurrence. - Record the corrective actions taken.	
Records: *Veal Treatment and History Record (3.2), Outgoing Veal Record (3.3), Verification Record (3.11), Corrective Action Report (3.12)*		

SP 12.1

- The trucker should sign the bottom of the *Outgoing Veal Record* to indicate that he/she has accepted the load of calves and that the truck is clean.

OUTGOING VEAL RECORD -3.3 (sample)

Preconditioned calves ☐ **Calves going to slaughterhouse** X

Total number of animals: ___3_____

Animal identification number (tag number):
982000008911498 982000008911567 982000008911901

PRECONDITIONNED CALVES:

Possible Broken needle: **No** ☐ **Yes** ☐
Animal id: _____
Region: _____
Calf subject to withdrawal period No X Yes ☐
Animal id: _____
Ending date of withdrawal: _____

CALVES GOING TO SLAUGHTERHOUSE:

Possible Broken needle: Yes X **No** ☐
animal id: 982000008911567
Region: neck
Calf cleanliness respected Yes X **No** ☐

I certify that withdrawal times for medication and vaccine have been met: Yes X

Producer signature: _____Mr. Producer___
Date shipped: _____13-07-11_____

Destination: _____Slaughter House_____ **Trucker Signature:** ___Driver 23_____

SP 12.2Animal Loading Protocol

Prior to loading any animal, it is important to review the Recommended Code of Practice for the Care and Handling of Veal Calves, Section VII, Transportation (NFACC 1998) and the Recommended Code of Practice for the Care and Handling of Livestock – Transportation (NFACC 2001).

Producers must work with their transporter and processor to determine what the most appropriate pre-slaughter management practices are. These could include, but are not limited to, transport and resting time and feed withdrawal periods.

Carriers of veal calves must be able to demonstrate compliance with all laws and regulations that relate to the transport of animals through the required permits and certificates.

In terms of the vehicle, the trailer or truck must:

- Be clean.
- Have satisfactory ventilation for the weather conditions.
- Provide animals with good traction (i.e. sand).
- Have a well-built loading ramp, which provides good footing with cleats, solid sides and a gradual slope.
- Be free of sharp objects or corners.
- Have a means to segregate calves from other animals and by size.

When calves are being loaded, the trucker must:

- Load using the least amount of force necessary.
- Use battery operated cattle prods sparingly, if at all.
- Load calves in groups of no more than five and move them at a slow walk to prevent slipping and bruising.
- Load smaller animals last and keep them separate from the rest of the load.
- Provide bedding in cold weather (like straw or shavings).
- Follow proper loading densities as per the Recommended Code of Practice for the Care and Handling of Farm Animals – Transport.
- **Additional elements for your farm:**
- _____
  _____
  _____
  _____

Dead Animal Disposal

It is critical that dead veal calves be disposed of promptly. For more information about the handling of dead animals, see MP 2.1.1.

Transportation of Feed

Feed should be transported in a way that prevents contamination. The quality of purchased manufactured feed is the manufacturer's responsibility until it is received on the farm in a case where the manufacturer provides delivery.

If the mill is HACCP certified, it will have a quality assured process for trucking and delivering feed. If the mill is not HACCP certified, written assurance will be needed to ensure that steps have been taken to prevent contamination of feed (HR 2.5.2 i).

	SP 12.3
•	Where farm-owned trucks are transporting feed, steps (i.e. a visual inspection, repairing holes, or cleaning out the truck) will be taken to prevent contamination of feed by disease agents, animal health products, prohibited material or farm chemicals.

Transportation of Other Farm Inputs

	SP 12.4
•	When the farm truck is being used to transport animal health products, medical devices, farm chemicals and conditioners or other materials, the operator should take actions to ensure that no chemical residue or biological cross-contamination will occur when feed is being transported in the farm truck to the farm.

2.13 Critical Control Points

Critical Control Points (CCPs) are points, steps or procedures used in the veal production process where actions can be taken to contain, reduce or eliminate an identified hazard. The following CCPs have been identified for the Verified Veal Program. The numbering system indicates a (C) for a chemical hazard and a (P) for a physical hazard.

CCP – 1C An example of this type of CCP is shipping calves to slaughter before the drug withdrawal period has elapsed, which may result in chemical residues in the meat. This CCP is supported by the following GPP Mandatory Practices and documented in the corresponding records:

2.12.2 i, ii ……...*Veal Treatment and History Record*
2.12.3 ……*Outgoing Veal Record*

CCP – 2P An example of this type of CCP is having a possible broken needle in a calf when it is shipped to the next owner (i.e. to a new producer or to a packing plant), which may result in a broken needle in the meat.

This CCP is supported by the following GPP Mandatory Practices and documented in the corresponding records:

2.12.2 i, ii…….*Veal Treatment and History Record*
2.12.3……...*Outgoing Veal Record*

Section 3: Proposed Records

The following records are examples only. Producers may modify these to accommodate individual management styles. Please remember that whatever forms your personal records take, they must provide all of the pertinent information that these records ask for. **All mandatory records must be kept for two years.**

3.1 Producer Commitment

I AGREE TO MAINTAIN THE REQUIREMENTS OF THE *VERIFIED VEAL PROGRAM*.

In particular, I will:

1- Ensure all required records will be kept for a minimum of two years.

2- Not use treated lumber for animal penning. If treated lumber is the only option, I will cover it with another material (i.e. plastic, plywood, or metal) so there is no contact with the calf (MP 2.1.2).

3- Not allow other food producing animals other than veal calves in the production facility (HR 2.2.1).

4- Properly train all employees in the tasks they are responsible for (HR 2.4.1).

5- Ensure that no feed except that for veal calves, , is consumed or is stored in the veal production facility (HR 2.5.3).

6- Only use bedding that is made up of natural materials (i.e. straw, sawdust, or wood shavings) as some processed materials (from recycled sources) may contain unknown chemical contaminants (such as formaldehyde) (HR 2.5.11).

AT RECEIVING

7- Ensure raw milk is received from off-farm source as per regulations (HR 2.5.1).

AT STORAGE

8. Ensure that all injectable and topical animal health products are immediately stored according to label directions (i.e. being refrigerated, protected from light or at room temperature) (MP 2.6.1).

9. Ensure that all oral animal health products (i.e. water medication or feed medication) are stored according to label directions. I will store these products in an identified dedicated area (i.e. medicated feed storage area). I will properly identify all products used on my farm (MP 2.6.1).

10. Store all type of feeds in such a way that they will be protected from the natural elements, manure or pests (HR 2.6.2).

11. Clearly identify and store all farm chemicals/conditioners so as to not contaminate feed (MP 2.6.6).

12. Ensure that bedding is stored in an area separate from calves (a barrier or fence will suffice) to limit bacterial contamination (HR 2.6.7).

13. Ensure that pails, nipples, milk distribution lines, ear tags, taggers and clippers that are not used daily are stored in a clean, dry area to minimize biological contamination. I will visually inspect and sanitize these pieces of equipment before use if necessary (HR 2.6.8).

14. Ensure that manure is stored in a separate area away from barn entrances and ventilation inlets to prevent the direct or indirect contact of manure and its run-off with veal calves (HR 2.6.9).

AT TREATMENT

15. Use an appropriate injection technique as directed in the protocol advised by the herd veterinarian (MP 2.8.5).

16. Never straighten or re-use a bent needle (HR 2.8.6).

17. Dispose of all expired medication according to provincial regulations and municipal by-laws (HR 2.8.7).

18. Ensure that feed mixers and distribution equipment in veal operations are not used to mix feed for other species (MP 2.10.1).

FOR CLEANING AND SANITATION

19. Will clean the initial area for incoming calves and disinfect before their arrival (HR 2.11.1):

a. In all in-all out operations, animal housing areas will stand empty for a minimum of five days after they are cleaned and disinfected (HR 2.11.1 i).
b. In continuous flow operations, routine cleanouts and application of disinfectants are essential (HR 2.11.1 ii).
c. Calf hutches must be cleaned and disinfected before arrival of every calf and fresh bedding must be provided as required (HR 2.11.1 iii).

20. Ensure that all equipment used in the preparation and distribution of milk, with the exception of automated calf feeders, will be cleaned after each use. This will include nipple pails, bottles and nipples. I will perform a weekly visual inspection to ensure equipment is free of organic material build-up (HR 2.11.2).

21. Clean and disinfect automated calf feeders according to the manufacturer's recommendations (HR 2.11.3).

22. Ensure that all equipment dedicated to the handling and distribution of feed for grain-fed veal will be visually inspected each week to make sure that the equipment is free of organic material build-up (HR 2.11.4).

23. Ensure that medical devices are effectively cleaned and disinfected after each use or sequence of use (MP 2.11.5).

The verification report has been completed and signed (MP 2.12.2 and 2.12.3)

Date: _____

Producer's Signature: _____

This commitment must be renewed each year.

3.2 VEAL TREATMENT and HISTORY RECORD

Date (d/m/y)	Veal ID	Point of purchase	Mass treatment (feed medications, top dress, water or milk)	Individual Treatment						Comments (broken needle in calf, calf death, calf destruction, compromised calf, mistake, etc.)
				Treatment Start Date (d/m/y)	Length of Treatment (days)	Product Name	Dosage (cc or mL) and route	Withdrawal Date (d/m/y)	Done By (Initials)	

Note: By initialing the record, the person confirms that he/she has performed the treatment and checked the storage and label of the animal health product used.

3.3 OUTGOING VEAL RECORD

Preconditioned calves ☐ **Calves going to slaughterhouse** ☐

Total number of animals: _____

Animal identification number (tag number):

_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

PRECONDITIONNED CALVES:

Possible broken needle: No ☐ Yes ☐ Animal ID: _____

Region: _____

Calf subject to withdrawal period No ☐ Yes ☐ Animal ID: _____

Ending date of withdrawal: _____

CALVES GOING TO SLAUGHTERHOUSE;

Possible broken needle: No ☐ Yes ☐

Animal ID: _____

Region: _____

Calf cleanliness respected: Yes ☐ No ☐

I certify that withdrawal times for medication and vaccine have been met: Yes ☐

Producer Signature: _____

Date Shipped: _____

Destination: _____ **Trucker Signature**: _____

3.4 RECOMMENDED ANIMAL HEALTH PRODUCTS RECORD

Date (d/m/y)	Product Name	Veal approved (VA) Or Extra label (El)	Comments	Actual dosage used (in ml/kg)	Route of Administration	Withdrawal Time (days)	Storage Location

Dosage: cc/ml per lb/kg of body weight

Route of administration: I/M: intramuscular, S/C: under skin, I/V: in vein, T/P: topically, P/O: orally

Prescriptions are filed appropriately or with this record. Any product brought to the farm must be included in this record. The record is reviewed with your veterinarian who signs it at least once a year or according to provincial requirement.

3.5 INCOMING FEED RECORD

Date (d/m/y)	Feed Name	Supplier				For Medicated Feed			Stored (indicate bin # or location)
		Produced on farm **If yes, no sample is required**	**Purchased Feed or Commercial Processed Feed**			**Name of Medication (from feed label)**	**Mg of Medication/kg of Feed (from feed label)**	**Withdrawal Date (from feed label)**	
			HACCP Supplier Indicate batch number	**Non-HACCP Supplier Date of Sampling (d/m/y)**					

Incoming feed whether produced on the farm or purchased needs to be recorded here.

Samples will be taken from all non-HACCP suppliers of feed and date of sampling recorded here. Those samples will be held at least nine months after the date of sampling noted here.

Written assurance from non-HACCP suppliers of processed feed will be filed with this record.

3.6 MEDICATED FEED MIXING RECORD

Date (d\m\y)	Pen or Barn Number	Type of Mix	Amount of Mix	Medication Used	Amount of Medication in Finished Feed (mg/kg)	Number of days of treatment	Withdrawal Time	Mixed By (initials)

All mixes must be recorded.
The mixer must be flushed according to Good Production Practices medicated feed mixing protocol. See the medicated feed mixing protocol regarding the sequence in which components of the ration are added to mixes as well as duration of mixing. The material and amount of flush, the duration of the flush and the disposal of the used flush are also listed in that protocol.

3.7 VISITORS' REGISTER

Visitors' Register			
Date (d/m/y)	Name	Phone Number	Signature

3.8 PEST CONTROL RECORD

Date (d/m/y)	**Product Name**	**Method of Application** **(how, where)**	**Comments** **(plugging holes, placement of glue boards, etc.)**	**Done by** **(Initials)**
The pest control is under the responsibility of (name of company): _____				

The pest control program must be dated and should be replaced any time a new version is completed. If the pest control program is under the responsibility of a company, keep the contract and proof of treatment.

3.9 MANUAL FILES

This record contains the manuals for all equipment that requires calibration and routine maintenance.

3.10 WATER QUALITY RECORD

Date of Sampling (d/m/y)	Name of Laboratory	Result of Test		Result of Retest		Corrective Actions	Initials
		Conforms to the Acceptable Limits	Outside of the Acceptable Limits, Indicate Date of Retest (d/m/y)	Conforms to the Acceptable Limits	Outside of the Acceptable Limits		

Copies of laboratory reports will be kept on file for a minimum of one year.

Water Treatment System Follow-up

Date (d/m/y)	Water Treatment System Maintenance	Corrective Actions	Initials

3.11 VERIFICATION RECORD

Date (d/m/y)	CCP or MP or HR Verified	Description	Reviewer Signature

CCP: Critical Control Point
MP: Mandatory Practice

3.12 CORRECTIVE ACTION REPORT

Date (d/m/y)	Deviation (# of MP or HR)	Corrective Action to Fix the Deviation	Action Undertaken to Prevent Recurrence	Signature of the Person Responsible and of the Trainee if Applicable

This report should be submitted to the auditor**.**

Section 4: Protocols

4.1 Mandatory Protocols

Medicated Water Protocol

- Water lines must be identified.
- Always check the expiration date of any medication used.
- Always follow the drug withdrawal period when water medicating.
- Refer to *Section 2.7.1* for the water medicator confirmation approach.
- Water medicators used for medication will be flushed with potable water at the end of the treatment period.
- **Additional elements for your farm:**

  _____
  _____
  _____
  _____

Injection Technique Protocol

An injection technique protocol must include:

- Identifying the proper veal calf to be treated.
- Ensuring the animal health product selected is the product desired.
- Always injecting calves in the neck just in front of the shoulder or according to the veterinarian's directions.
- Never straightening or re-using a bent needle.
- Cleaning and disinfecting if applicable syringes and needles after each use or drug sequence and never leaving a needle sticking out of the cap of a bottle of medication.
- Check the expiration date of the medication before use.
- Discarding needles in a sharps container or equivalent.
- Ensure syringues give the right dosage
- **Additional elements for your farm:**
- _____
  _____
  _____

Grain-fed Medicated Feed Mixing and Distribution Protocol

-Always make sure employees are properly trained to mix medicated feed.
-Record the medication given to the group of calves in the *Veal Treatment and History Record*. Indicate the pen number, the start and end date of the treatment and the withdrawal date.
-Record the medicated batch of feed in the *Medicated Feed Mixing Record.*
-Always check that you are using the desired product and it has not expired.

Instructions to Prevent Using the Wrong Animal Health Product:

- Follow the prescription and/or label directions.
- Have all animal health products clearly labelled and stored according to their label.
- Make sure the animal health product being considered is listed in the *Recommended Animal Health Products Record*.

Instructions to Prevent the Wrong Dosage from Being Mixed:

- Follow the prescription given by the herd veterinarian because the correct dosage and mixing directions will be indicated.
- Ensure that your scale for determining the medication amount is calibrated.
- Ensure the scale on the mixer unit is calibrated so you know the total volume of the feed being mixed. This known weight is necessary to determine the amount of medication required.
- Follow the manufacturer's directions for mixing time when preparing the feed ration. This should allow for the medication to be evenly mixed throughout the batch.
- Mixer performance is crucial to ensure that an even dosage of medication is distributed in the batch of feed. Always keep the mixer in good working condition. Replace parts such as paddles, augers and beaters as they wear because that will affect the feed mixing performance and prevent an even mix.

Instructions to Prevent Medicated Feed Going to the Wrong Calf:

- Have pens or lots of calves properly identified. Make sure all calves are individually identified. Record calf numbers in the *Veal Treatment and History Record*.
- When medicated feed with a withdrawal period is mixed and ready to distribute, always identify the correct pen of calves to feed.
- Always have commercial medicated feed stored in a labelled, dedicated bin or, for bags, in an identified area.

Keys to Prevent Residues in the Next Batch of Feed:

Sequencing: If you prepare feed batches for two production stages of calves, for example, calf starter and calf finisher, and the starter ration is medicated, then feed the medicated starter ration last one day and first the next. This is called sequencing and results in the need for fewer flushing and cleaning events. This practice saves time and is an effective way of managing drug residues in equipment.

Flushing: This involves passing a substance (i.e. corn) through the mixer to remove any remaining residues from the previous batch of feed. This reduces the risk of drug residues being passed from one batch of feed to another, thus preventing the wrong group of calves from getting drug residues. The amount of flushing material (corn) depends on the size and kind of mixer. Typically, five to ten percent of the mixer capacity (i.e. 100 kilograms as a

minimum) is sufficient. The last batch made is then top-dressed with the flushing material. This practice greatly reduces the chance of cross-contamination, the wrong calf receiving unwanted medication, and residue build-up.

Cleaning: Always look for hang-ups or pockets of feed remaining in the mixer and delivery equipment. If it was medicated feed, then that may cause cross-contamination. Dead spots in the mixer can also cause a problem. Any medicated feed not moved out should be cleaned out by opening the access doors and sweeping or vacuuming the product out. A completely cleaned mixer poses no hazard of cross-contamination.

Additional elements for your farm:

_____
_____
_____
_____

Medicated Milk Mixing and Distribution Protocol

- Mixer tubs and propellers should be made of material that facilitates cleaning (i.e. stainless steel).
- Follow the milk replacer manufacturer's directions for proper preparation of their product, which should indicate water temperature and mixing time. When necessary, adapt the mixing time according to the mixer manufacturer's directions for use.
- Always make sure employees are properly trained to prepare medicated milk replacer solutions.
- Record the medication given to the group of calves in the *Veal Treatment and History Record*. Be sure to indicate the room number, the start and end date of the treatment and the withdrawal date in the record.
- Record the mixing of milk replacer in the *Medicated Feed Mixing Record.*
- Always check that you are using the desired product and that it has not reached its expiration date.

<u>Instructions to Prevent Using the Wrong Animal Health Product:</u>

- Follow the prescription and/or label directions.
- Have all animal health products clearly labelled and stored according to their label.
- Ensure the animal health product being used is listed in the *Recommended Animal Health Products Record*.

<u>Instructions to Prevent the Wrong Dosage from Being Mixed:</u>

- Follow the prescription and calculate the amount of medication that needs to be added to the batch of milk replacer solution according to the number of calves being fed.
- Ensure your scale for determining the medication amount is calibrated.
- Ensure the scale on the mixer unit is calibrated so you know the total volume of the milk

replacer solution being prepared.

- Follow the milk replacer manufacturer's directions for proper preparation of their product, which should indicate water temperature and mixing time. When necessary, adapt the mixing time according to the mixer manufacturer's directions for use. The medication is added while the cold water is added into the mixer tub and allowed enough mixing time. This should allow for the medication to be evenly distributed throughout the batch of milk replacer solution.
- Mixer performance is crucial to ensure that the dose of medication is evenly distributed in the batch of milk replacer solution. Always keep the mixer in good working condition. Replace parts such as propellers and motors as they wear for optimal mixing performance and to ensure an even mix.

Instructions to Prevent Medicated Milk from Going to the Wrong Calf:

- Have rooms or lots of calves properly identified and ensure all calves are individually identified as well.
- When medicated milk solution with a withdrawal period is prepared and ready to distribute, always identify the correct group of calves to feed. Record calf numbers in the *Veal Treatment and History Record*.
- Always have commercial medicated milk replacer stored in a properly identified area.

Keys to Prevent Residues in the Next Batch of Milk Replacer Solution:

1. **Sequencing:** If you prepare milk batches for two production stages of calves, for example starter feed and finisher feed, and the starter ration is medicated, then feed the medicated starter ration last on one day then first the next during the medicating period. This is sequencing and reduces the number of flushing and cleaning events required. This practice saves time and is an effective way of managing drug residues.
2. **Flushing:** This is passing a substance (i.e. water) through the mixer and pipe line to remove any remaining residues from the previous batch of milk solution. This reduces the risk of drug residues being passed from one batch of milk to another, thus preventing the wrong group of calves from getting drug residues. The amount of flushing material (water) depends on the mixer and the length of the milk line. Run water through the milk line until there is only water coming out.
3. **Cleaning:** There is no specific cleaning procedure after preparing medicated milk replacer solution. The cleaning procedure is the same as the one to clean the system after each feeding time.

Additional elements for your farm:

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_____

_____

_____

_____

_____

_____-

4.2 Highly Recommended Protocols

Biosecurity Protocol

The following elements must be included in the on-farm Biosecurity program:

- Filling in the *Visitors' Register* in which the following visitor information will be recorded:
  - Date
  - Full name
  - Phone number
  - Signature
- The deadstock collector will not enter the veal facility.
- Truck drivers delivering new calves or picking up market calves have only specified limited access as per agreement with the operator.

For the use of all other visitors, the operator will:

- Provide a *Visitors' Register* that documents visitor presence within the facility. This register also lists security and sanitation procedures acceptable to the facility.
- Provide hot and cold water in grain-fed nurseries and in milk-fed barns.
- Provide access to wash water in grain-fed finisher barns.

- Ensure visitors wear waterproof shoe coverings, wash and disinfect their shoes, or use a disinfectant footbath. If a footbath is used, the solution used in the disinfectant footbath will be prepared with an appropriate disinfectant used according to the manufacturer's recommendation (see list of common disinfectants in *Section 2.11*) and replenished as visibly required.

- Ensure that all visitors know to avoid unnecessary physical contact with calves and feeding equipment.

- Ensure that a warning sign restricting entry to the facility is easily readable and in plain view at the entrance to the livestock building.

The following is an example:

DO NOT ENTER WITHOUT PERMISSION

Additional elements for your farm:

Pest Control Protocol

A pest control program will include, as a minimum:

The name of an individual or exterminator company responsible for the farm's pest control program.
Maintain a contractor report if applicable.
The names of chemicals used for pest control and the methods of applying them.
The location of bait stations in the barn and bedding storage area (with a map).
The placement of multiple catch or snap traps and glue boards.
Eliminating refuse and empty feedbags in the barn that could provide shelter for pests.
Plugging potential rodent holes in the walls and floors to deny pests access to the facilities.

Additional elements for your farm:

_____

_____

4.3 Suggested Protocols

Veal Calf Reception Protocol

The quality and health of calves upon arrival at the veal barn is a major factor in their subsequent health, need for treatment, growth performance and carcass quality. The following are points to consider when receiving veal calves:

- When possible, purchase calves from a minimal number of sources.
- Calves should be transported in a clean truck designed to protect them from adverse weather conditions and, when possible, calves should be transported directly from the point of purchase to your farm.
- Whenever possible, newly received calves should be segregated from the general barn population upon arrival.
- It is recommended that compromised calves be identified, separated and treated adequately, but if they are weak, injured, underweight or obviously sick, they should not be transported.
- Calves with wet, swollen navels or warm swollen joints should not be accepted.
- Calves should be at least 10 days old and have a dry navel before leaving the birth farm.
- Calves should be fed an appropriate ration within six hours of arrival.
- Calves, in the first 6 hours of life, should have received adequate amounts of high quality colostrum.
- /colostrum replacer (10% of body weight). Transition to milk is gradualy done in the following 72 hours
- Any injectable medication that calves receive should be injected in the neck unless otherwise recommended by veterinarian.
- When possible, the operator should get the health records regarding medications received or any broken needles from the seller.

Additional elements for your farm:

NOTE: Obviously sick calves include those that are dull, depressed and showing signs of dehydration, scours, respiratory distress and swollen navel or joints.

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Suggested Practices for an Injection Technique

Follow these steps to properly inject veal calves:

Before injecting

1-Always read, understand and follow directions on the veal-approved animal health product medication labels and package inserts.

2-Check the expiration date before each treatment.

3- Do not combine medications in the same syringe. This has the potential to neutralize the activity of one or both of the products. The combination of medications may create a reaction at the injection site.

4- Consult the herd veterinarian whenever a new medication is acquired or if there is any doubt about proper usage.

5- Use "detectable needles" instead of plastic-based needles.

6-Always disinfect the cap of a medicine bottle with alcohol, chlorhexidine or another appropriate disinfectant before putting a needle through it. As well, be sure to use a clean needle, rather than one that has already been used to inject an animal.

7-Use a clean transfer needle, so dirty needles or syringes do not contaminate medications.

To inject the animal properly:

1-Identify the right calf.

2-Prepare and disinfect the injection site.

3-Attempt to minimize the amount of medication administered at any one injection site.

4-Use the proper technique: On an angle using the "tented" method for subcutaneous injections and on a 90-degree angle for intramuscular injections.

5-Where the option exists on labelled directions, give the medication subcutaneously to reduce tissue inflammation.

6-Visually inspect the needles after each injection.

Additional elements for your farm:

_____

_____

_____

_____

_____

Animal Loading Protocol

Prior to loading any animal, it is important to review the Recommended Code of Practice for the Care and Handling of Veal Calves, Section VII, Transportation (NFACC1998) and the Recommended Code of Practice for the Care and Handling of Livestock – Transportation (NFACC 2001).

Producers must work with their transporter and processor to determine what the most appropriate pre-slaughter management practices are. These could include, but are not limited to, transport and resting time and feed withdrawal periods.

Carriers of veal calves must be able to demonstrate compliance with all laws and regulations that relate to the transport of animals through the required permits and certificates.

In terms of the vehicle, the trailer or truck must:

- Be clean.
- Have satisfactory ventilation for the weather conditions.
- Provide animals with good traction (i.e. sand).
- Have a well-built loading ramp, which provides good footing with cleats, solid sides and a gradual slope.
- Be free of sharp objects or corners.
- Have a means to segregate calves from other animals and by size.

When calves are being loaded, the trucker must:

- Load using the least amount of force necessary.
- Use battery operated cattle prods sparingly, if at all.
- Load calves in groups of no more than five and move them at a slow walk to prevent slipping and bruising.
- Load smaller animals last and keep them separate from the rest of the load.
- Provide additional bedding in cold weather (like straw or shavings).
- Follow proper loading densities as per the Recommended Code of Practice for the Care and Handling of Farm Animals – Transport.

Additional elements for your farm:

_____
_____
_____
_____
_____

Section 5: Appendices

5.1 Retail Suppliers' and Transporters' Commitment

Retailers and transporters should be encouraged to do everything possible to provide a clean product to you without contamination of a biological or chemical nature. The following letters are provided in a format that you, the producer, might wish to have your primary suppliers and truckers sign in order to provide a written confirmation that they are doing their very best to provide a clean and uncontaminated product.

Retail suppliers

Mister, madam: _____Veal Producer:

- We___ (Company XYZ) _____ make every effort to maintain and store the products that we sell in a clean and sanitary environment.
- We___ (Company XYZ) _____ will not, to the best of our knowledge, provide your business with any products that have been exposed to biological and/or chemical contamination.
- We___ (Company XYZ) _____ make every effort to maintain and store the animal health products that we sell in a clean and sanitary environment.
- We___ (Company XYZ) _____ make every effort to eliminate the possibility of contamination of feed by prohibited ruminant material.

_____ _____

XXX for company XYZ Date (d / m/ y)

Transporters (calves, feed, other materials like animal health products, medical devices)

Mister, madam: _____ Veal Producer:

We___ (Company XYZ) _____ make every effort to clean and maintain our trucks and/or trailers to prevent possible contamination.

_____ _____

XXX for transporter Date (d / m/ y)

5.2 Recommended Code of Practice for the Care and Handling of Veal Calves

The National Farm Animal Care Council publishes the Recommended Code of Practice for the Care and Handling of Veal Calves. A copy can be obtained online at www.nfacc.ca or by contacting one of the following organizations:

Ontario Veal Association
449 Laird Road, Unit 12
Guelph, Ontario
N1G 4W1
Phone: 519-824-2942
Fax: 519-824-2534

Fédération des producteurs de bovins du Québec
555 boul. Roland Therrien, bureau 305
Longueuil, Québec
Phone: 450-679-0530
Fax: 450-442-9348

5.3 Recommended Code of Practice for the Care and Handling of Farm Animals – Transportation

The National Farm Animal Care Council publishes the Recommended Code of Practice for the Care and Handling of Farm Animals - Transportation. A copy can be obtained online at www.nfacc.ca.

5.4 Compendium of Medicating Ingredient Brochures

The Compendium of Medicating Ingredient Brochures is available at
http://www.inspection.gc.ca/english/anima/feebet/mib/cmibe.shtml

5.5 Drugs Prohibited for Extra Label Use in Food Producing Animals

Under the Veterinary Drug Directorate of Health Canada, certain pharmaceuticals are prohibited for extra label use in food producing animals.

5.6 Other Resources

Manuals

Animal Nutrition Association of Canada Good Manufacturing Practices Manual
Animal Nutrition Association of Canada
150 Metcalfe Street, Suite 1301
Ottawa, Ontario
K2P 1P1
Phone: 613-241-6421
Fax: 613-241-7970
E-mail: info@anac-anac.ca
Website: www.anac-anac.ca

Note: pending Canadian Feed Medication Regulations - contact CFIA

5.7 Useful Internet Links

Canadian On-Farm Food Safety Program: www.onfarmfoodsafety.ca

Canadian Veterinary Medical Association – Guidelines on «The Prudent use of Antimicrobial Drugs in Animals»: www.verifiedbeef.org, 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

Health of Animals Act: http://laws.justice.gc.ca./en/H-3.3/fulltoc.html

Food and Drugs Act: http://laws.justice.gc.ca./en/F-27/index.html

On-Farm Food Safety Recognition:
http://www.inspection.gc.ca/english/fssa/polstrat/reco/recoe.shtml

Ontario Veal Association: www.ontarioveal.on.ca

Fédération des producteurs de bovins du Québec : www.bovin.qc.ca

Section 6 : Producer Checklist

2.1 Premises

□ MP 2.1.1 Deadstock is immediately placed in a designated area separate from animal housing and the calf number is recorded in the *Veal Treatment and History Record.* □MP 2.1.2 Treated wood cannot be used in any instance it can come into contact with calves , unless it is covered (i.e. covering treated lumber with plastic, plywood, or metal). .	□ HR 2.1.3 Rooms and/or pens must be clearly identified to facilitate completion of the *Veal Treatment and History Record's* group treatment section.

2.2 Controlling Access to the Production Facility

□ HR 2.2.1 No food-producing animals other than bovine shall be allowed in the production facility. □ HR 2.2.2 The operator shall have a visitors' register and protocol in place. .	□ HR 2.2.3 The operator shall have a biosecurity program in place.

2.3 Pest Control

□ HR 2.3.1 The operator shall have a pest control program in place.	

2.4 Personnel Evaluation and Training

□ HR 2.4.1 The operator will ensure that all employees are properly trained in the tasks they are responsible for and are knowledgeable about the current Verified Veal Program. If anything goes wrong, the employee should be retrained to prevent recurrence.	

2.5 Purchasing and Receiving

□ HR 2.5.1i) Raw milk should be received from off-farm sources as per regulations. ii) Incoming feed, whether produced on the farm or purchased, is recorded in the *Incoming Feed Record*. □ HR 2.5.2 i) Non-HACCP suppliers of processed feed are required to provide written assurance that steps have been taken to assure product integrity and prevent contamination of feed with disease agents, animal health products, ruminant source feeds or farm chemicals both at source and during transit to the producer each year. This assurance will be filed with the *Incoming Feed Record.* ii)If the feed bags are plastic-lined and come from a HACCP manufacturer, there is no need for a written assurance.	□ HR 2.5.7 When pre-conditioned calves are purchased, they shall come from a source that participates in the Verified Veal Program. When purchasing calves, obtain the *Outgoing Veal Record* and transfer any pertinent information onto your *Veal Treatment and History Record* in the point of purchase column. □ MP 2.5.8 It is essential to establish, maintain and update a record of all medications to be used on the farm with your veterinarian. Only use approved animal health products according to provincial and federal regulations unless under prescription. This will be recorded in the *Recommended Animal Health Products Record*.

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□ MP 2.5.3 i)No food-producing animal feed except for veal calves shall enter the veal production facility.
ii) Calves must never be fed byproduct protein .

□ HR 2.5.4 Bagged or bulk feed purchased from a HACCP manufacturer or supplier need not be sampled, but an invoice or delivery slip with traceability information must be filed or recorded in the *Incoming Feed Record.*

□ HR 2.5.5 If you are buying from a Non-HACCP mill, samples of feed will be taken and the samples will be kept for nine months. This is recorded in the *Incoming Feed Record*.

□ HR 2.5.6 i) The point of purchase for each veal calf must be recorded in the *Veal Treatment and History Record's* point of purchase column. Each calf should arrive at the production site bearing an ear tag that is recognized by federal Health of Animals Regulations.
ii) If management tags are used, they must be cross-referenced to the Canadian Cattle Identification Agency's (CCIA) tag under the Federal Health of Animal Regulations. This identification is recorded in the *Veal Treatment and History Record* or equivalent record.

□ MP 2.5.9 All prescriptions required for medication are filed appropriately.

□ MP 2.5.10 The animal health products received at the production unit should be in properly labelled unopened containers.

□ HR 2.5.11 Only use bedding made of natural materials such as straw, sawdust, or wood shavings. Some processed materials (from recycled sources) could contain unknown chemical contaminants like formaldehyde, glues, adhesives and fiberglass..

2.6 Storage

□MP 2.6.1 Injectable, oral and topical animal health products shall bebe:
- immediately stored according to label directions (i.e. in the refrigerator, protected from light, or at room temperature).
- stored in a clean, dust-free cabinet or fridge.
- . stored in an identified, dedicated area;.
- All products must be clearly identified
- Expiry drugs must be discarded.

□ HR 2.6.2 Feed of all types shall be stored in such a way that it will be protected from the natural elements (i.e. rain or snow), from biological hazards (i.e. manure or pests). Proper storage would include, as an example, a feed bin with a lid or bagged feed placed on a pallet.

□ MP 2.6.3 Where multiple bins exist, they shall be identified to ensure errors cannot occur during delivery of feed or when removing feed from the bin.

□ MP 2.6.4 The area for storage of medicated feed shall be clearly marked with a medicated feed sign. The feed itself will have some obvious indication, on either the tag or container, of the nature of the medicated product and will be stored to prevent contact with non-medicated feed.

□ MP 2.6.5 When bulk medicated feed is used on-farm, one bin is identified as the medicated feed bin. This is recorded in the *Incoming Feed Record*.

□ MP 2.6.6 All farm chemicals/conditioners must be clearly identified and stored so not to contaminate feed.

□ HR 2.6.7 Bedding shall be stored in an area separated from calves (a barrier or fence will suffice) to limit bacterial contamination and to control rodent activity.

□ HR2.6.8 Pails, nipples and milk distribution lines, ear tags, taggers, and clippers that are not used daily must be stored in a clean, dry area to minimize biological contamination. Before this equipment is used it must be visually inspected and sanitized if necessary.

☐ HR 2.6.9 Manure is stored in a separate area to prevent possible contamination of calves, feed, water, and bedding through the direct or indirect contact of manure and its run-off. The manure storage area must be away from barn entrances and ventilation inlets.

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2.7 Equipment

□ MP 2.7.1 Water medicators will be calibrated according to manufacturer's recommendations before each treatment period to ensure accurate dosage. This is recorded in the *Veal Treatment and History Record*.

2.8 Administration of Medication

□ MP 2.8.1 All medications (injectable, oral, topical, medicated water or feed) are recorded in the *Veal Treatment and History Record* at the time that they are given to veal calves on the farm.

□ MP 2.8.2 When medicating calves using water, operators must follow the medicated water protocol. This is recorded in the *Veal Treatment and History Record*.

□ MP 2.8.3 It is legally required that the producer has a prescription or a written, dated, and signed paper from the herd veterinarian when using extra label drugs.

□ MP 2.8.4 A valid veterinary-client-patient relationship (VCPR) shall exist between the farm operator and the herd veterinarian.

.□ MP 2.8.5 An appropriate injection technique will be used as directed by the herd veterinarian's protocol.

□ HR 2.8.6 Never straighten or re-use a bent needle.

□ HR 2.8.7 All expired medication and medical devices are to be disposed of according to current provincial regulations and municipal bylaws.

2.9 Water Quality

□ HR 2.9.1 Water from all sources used for animal production shall be tested annually for the mandatory parameters set out by a provincially certified laboratory. Samples sent for analysis must be taken from the source closest to the end use. This is recorded in the *Water Quality Record*.

□ HR 2.9.2 Copies of the laboratory reports will be kept on file for a minimum of two year. File these laboratory reports with the *Water Quality Record*.

□ HR 2.9.3 If a water treatment system is used it shall be monitored monthly. This procedure could include performing any required maintenance, changing the filters or calibrating the pump. This is recorded in the *Water Quality Record*.

□ HR 2.9.4If water storage is used, it should consist of a closed containers or tanks.

2.10 Feed Mixing

□ MP 2.10.1 Feed mixers and distribution equipment in ruminant operations may not be used for mixing feed for other species.

□ MP 2.10.2 When medicated feed with a withdrawal period is mixed on the farm, the Grain-Fed Medicated Feed Mixing and Distribution Protocol must be followed. The appropriate information is recorded in the *Medicated Feed Mixing Record* and the *Veal Treatment and History Record.*

□ MP 2.10.3 When medicated milk with a withdrawal period is mixed on the farm, the Medicated Milk Mixing and Distribution Protocol must be followed. The appropriate information is recorded in the *Medicated Feed Mixing Record* and the *Veal Treatment and History Record.*

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2.11 Cleaning and Sanitation

□ HR 2.11.1 The area for incoming calves shall be cleaned and disinfected prior to their arrival.

i) In all in–all out operations, animal housing areas shall stand empty for a minimum of five days after they are cleaned and disinfected. This allows time for them to dry before repopulation.

ii) In continuous flow operations, routine cleanouts and application of disinfectants are essential. Drying period is variable.

iii) Calf hutches must be cleaned and disinfected before the arrival of every new calf and fresh bedding must be provided as required.

□ HR 2.11.2 All equipment used in the preparation and distribution of milk with the exception of automated calf feeders will be cleaned after each use. This includes nipple pails, bottles, and nipples. A weekly visual inspection will be done to ensure equipment is free of organic material build-up.

□ HR 2.11.3 Automated calf feeders will be cleaned and disinfected according to manufacturer's recommendations.

□HR 2.11.4 All equipment dedicated to the handling and distribution of feed for grain-fed veal must be visually inspected weekly to ensure equipment is free of organic material build-up.

□ MP 2.11.5 Medical devices must be adequately cleaned and disinfected after each use or sequence of use.

□ HR 2.11.6 i) Veal calves shall be sufficiently clean at all times. This means that 75 per cent of calves have less than 30 per cent of the surface of their abdomen coated with manure.

ii) At shipping, the operator must evaluate calves cleanliness and record the action in the *Outgoing Veal Record*.

2.12 Transportation and Shipping

□ HR 2.12.1 All animals leaving the veal facility shall carry an ear tag recognized by the Federal Health of Animals Regulations and other identification as required by the appropriate provincial veal organization.

□ MP 2.12.2 i) Prior to shipment to the packing plant, each animal's *Veal Treatment and History Record* is reviewed to ensure that the withdrawal times have been respected and that no possible broken needles remain in the calves due to inadequate injection technique (CCP – 1C and CCP – 2P).

ii) Prior to shipment to a barn staffed by a different person or to a new owner, every animal's *Veal Treatment and History Record* is reviewed to ensure that the information regarding withdrawal times and occurrence of possible broken needle is transferred (CCP-1C and CCP – 2P).

□MP 2.12.3 A completed and signed *Outgoing Veal Record* accompanies all veal calves to market, a barn staffed by a different person or to a new owner (CCP-1C and CCP-2P).

Section 7: **Glossary of Terms**

Acronyms:	BVD	Bovine Viral Diarrhoea
	CCAC	CCAC Canadian Council on Animal Care
	CCIA	Canadian Cattle Identification Agency
	CCP	Critical Control Point
	CFIA	Canadian Food Inspection Agency
	CMIB	Compendium of Medicating Ingredient Brochures
	COFFS	Canadian On-Farm Food Safety
	DIN	Drug Identification Number
	ELDU	Extra Label Drug Use
	FPBQ	Fédération des producteurs de bovins du Québec
	GPP	Good Production Practice
	HACCP	Hazard Analysis Critical Control Point
	HR	Highly Recommended Practice
	MP	Mandatory Practice
	NFACC	National Farm Animal Care Council
	OVA	Ontario Veal Association
	SP	Suggested Practice
	VCPR	Veterinary-Client-Patient Relationship

Definitions:

Animal Health Product	Drugs that are obtained by creating, mixing or compounding chemicals.
Antibiotic	An antimicrobial drug made by living organisms (i.e. Penicillin).
Antimicrobials	The term *antimicrobial* refers to both natural and synthetic substances like antibiotics and disinfectants which can kill or inhibit the growth of microorganisms (Health Canada).
Auditor	An independent, third party person who reviews, randomly, the producer's management practices and records.
Bacteria	A single-celled micro-organism (i.e. *E.coli* or *Salmonella*).
Biologic	For the purpose of this project, drugs or medicines obtained from animal tissue or some other organic source.
Biosecurity	Steps taken to prevent introduction of disease on-farm.
Canadian Food Inspection Agency (CFIA)	An Agriculture & Agri-Food Canada agency that monitors agricultural food products for detectable residues.

Compendium of Ingredient Medicating Brochures (CMIB) A resource that lists the medications and the dosages that manufacturers may include and sell in medicated feeds as set out in the Feeds Act and Regulations.

Commercial Grain Any grain that is purchased from off the farm.

Contamination The act of making a product impure.

Disinfectant A germicide (chemical agent that kills organisms) that is applied to objects rather than living animals.

Drug Any substance or mixture of substances that are manufactured and sold for use in:

a) The diagnosis, treatment, or prevention of disease, disorder or abnormal physical state in man or animal.
b) Restoring, correcting or modifying organic functions in man or animal.

Drug Identification the **Number (DIN)** A coded number that identifies the product. This number assures purchaser that the product has been tested and approved for purity, potency, bioavailability and concentration by the Veterinary Drug Directorate of Health Canada and is approved by the Government of Canada for use in the species specified at the dosages listed when the stated withdrawal times are observed.

Efficacy The power to produce the desired or intended result.

Expiry Date A date on a drug or vaccine label established by the Bureau of Veterinary Drugs past which the drug should not be used.

Extra Label Drug Use (ELDU) Occurs when a product is used in a manner other than that recommended by label instructions. Occurs most frequently when a greater quantity of drug is given than the label recommends or a reduced withdrawal time is observed. ELDU requires written veterinary approval since it is the most common cause of drug residue.

Feces Manure.

Feed In the context of this program, feed means milk replacer, whole milk, calf starter, grain corn, protein supplement, mineral supplement, roughage, water or any other product fed to veal calves.

Herbicide A substance intended for killing or controlling weeds.

Intramuscular (IM) Injection An injection given to a calf in the muscle.

Kilogram	1/1000 of a tonne.
Manual (the)	The producer manual of the Canadian On Farm Food Safety (COFFS) Program for Veal.
Manufacturer	A business that manufactures or produces a product.
Medicated Feed	Feed that is prepared when a medication is added.
Medication	See Drug.
Milligram	1/1000 of a gram.
Millilitre (mL)	Same as cubic centimetre (cc) – 1/1000 of a litre.
Mortality	Rate of death in a group.
Non-Medicated Feed	Feed that is prepared without the addition of medication.
On-Farm Grown	Grains and by-products that are grown and harvested on the farm.
Operator	The operator manages the production facility. Also known as a producer, farmer, production unit manager or manager.
Package Insert	A leaflet containing supplementary details to those printed on a medicine label.
Pathogenic	Causing disease or sickness.
Pest	A general term for organisms (rats, insects, etc.) which may cause illness or damage or consume food crops and other materials important to humans. An organism that is considered a nuisance to man, most usually having pathogenic properties.
Pesticide	A substance intended for killing or controlling insects, rodents, fungi or weeds.
Pharmaceutical (Animal Health Product)	Drugs that are obtained by creating, mixing or compounding chemicals.
Potency	The strength and effectiveness of a drug.
Pre-conditioned Calves	Pre-conditioned (pre-con) calves that have been weaned prior to arrival at the veal producer's farm.

Prescription	A written or verbal order for a medication from a licensed veterinarian with whom the owner has a proper veterinarian-client-patient relationship. The order states the amount of drug or mixture of drugs for a specific patient or group of patients.
Probiotics	Substances that act in the alimentary tract to aid in establishing the optimum balance of micro-organisms (i.e. *Lactobacillus*).
Producer Commitment	A written commitment made by the producer to maintain the requirements of the COFFS Program for Veal by adhering to certain components of specific Good Production Practices.
Prohibited Drugs	Are certain drugs that cannot be used to treat food producing animals even under extra label drug use (i.e. Chloramphenicol).
Prohibited Materials	Animal feed and ingredients specified in regulation that cannot be fed to veal calves.
Register	The process used by the Canadian On-Farm Food Safety (COFFS) Program for Veal to recognize veal farms as approved for the program.
Residue	When applied to livestock production, this refers to the drug remaining in meat after a treatment.
Shelf Life	The length of time an unopened product maintains its potency when stored according to manufacturer's recommendations.
Stress	Any physical or psychological discomfort that animals and humans may be subjected to.
Subcutaneous (S/C) injection	An injection given under the skin but not in the muscle.
Supplier	A person or business that can offer a part necessary for the production of a product.
Surface Water	Refers to water collecting on the ground or in a stream, river, lake, wetland, or ocean; it is related to water collecting as groundwater.
Tonne	1000 kilograms (metric) or 2205 lbs.
Vaccine (live or killed)	A medicine that contains live or killed micro-organisms (bacteria or virus) and is administered to stimulate immunity to a specific disease.

Vaccinate	To give a vaccine.
Veal	Milk-Fed Veal refers to calves reared on a milk-based diet throughout the production period. Grain-Fed Veal refers to calves reared on a feed program using milk-based feeds for the first six to eight weeks and then transitioned to a whole grain-corn and protein supplement diet for the remaining portion of the production period.
Vector	A vector means an animal that has the potential to transmit a disease, directly or indirectly, from one animal or its excreta to another animal; (laws.justice.ca)
Verifier	A verifier, also known as a reviewer, performs the task of verification when a corrective action is required. This person is someone other than the operator and should be knowledgeable of the farming operation.
Veterinary Drug Directorate (VDD)	A branch of Health Canada that approves and licenses medications and vaccines used for to promote animal health in Canada.
Veterinary-Client-Patient Relationship (VCPR)	Describes the formal relationship necessary between producer and veterinarian when veterinary prescription drugs are dispensed or directions given for extra label use of drugs.

Visitor
Anyone other than the owner, operator and technician, i.e. someone who does not go to the farm on a regular basis that come to the veal production area (where direct contact with the animals can happen),

Water Treatment System	Components that make up a system that helps to control the level of bacteria in a water system. This may include filtration.
Withdrawal Time	The recommended time between last drug treatment to a food animal and its time of slaughter. This is the time necessary for residues of the particular drug to be reduced in the veal calf below the established tolerance level for safe food.