



Cervid On Farm Food Safety Quality Recognition

# Good Production Practices

## Workbook for Producers

Version 2.6  
Original: 29 November 02  
Revised: 14 March 09

Prepared by:

Canadian Cervid Alliance  
On-Farm-Food Safety Quality Recognition Program

with assistance from:  
VM Technical Services  
and GEOS Consulting

# Table of Contents

## PART I – INTRODUCTION and GOOD PRODUCTION PRACTICE

Statement of Intent by Producer .....	iv
Introduction to Cervids and Cervid Production.....	1
Glossary.....	4
Premises.....	4
Pasture, Water and Facilities Management.....	4
Purchasing / Receiving / Storage of Incoming Materials.....	5
Sanitation and Pest Control.....	5
Sanitation of Animal Facilities.....	5
Rodent and Insect Control.....	5
Diseases and Parasite Control.....	5
Personnel and Training .....	6
Production.....	7
Acquisition of Animals .....	7
Feeding .....	7
Animal health .....	7
Administration of Medications.....	7
Velvet Antler Production.....	7
Antler Removal Procedure .....	8
Antler Handling and Storage .....	8
Shipping and Transportation .....	9
Recall Procedures.....	9
Records.....	10
Operational Checklists .....	10
Additional References.....	11

## ***PART II – BEST MANAGEMENT PRACTICES (BMPs).....12***

- **BMP #1 – Acquisition of Animals, Semen and Embryos**
- **BMP #2 – Receiving, Storage and Use of Medications, Chemicals and other Materials**
- **BMP #3 – Feeding and Feed Storage**
- **BMP #4 – Velvet Antler Harvest**
- **BMP #5 – Cleaning and Maintenance of Equipment and Premises**

## ***Forms provided for your use:..... 13 to 27***

- **Form 1 - Premise Checklist**
- **Form 2 - Individual Animal Treatment Log**
- **Form 3 - Pen Treatment Log**
- **Form 4 - Medication / Drug Use Log**
- **Form 5 - Receiving of Feed, Chemicals or other Materials**
- **Form 6 - Antler Harvest Preparation Checklist**
- **Form 7 - Velvet Antler Report**
- **Form 8 - Freezer Temperature Log**

***PART III – CRITICAL CONTROL POINTS FOR CERVID OPERATIONS.....29,30,31***

- **CCP1- Chemical – Animal Acquisition**
- **CCP1- Physical – Animal Acquisition**
- **CCP2- Physical – Treatment – Post Acquisition**
- **CCP3- Chemical – Animal Selection**
- **CCP4- Physical - Treatment**

## Statement of Intent by Producer

The undersigned agrees to the following:

1. To conform to and comply with the national Cervid OFFS program as presented in the Good Producer Practices manual.
2. To comply with all Federal, Provincial / Territorial and Municipal requirements regarding production of safe food.
3. To provide training to all farm or ranch employees with responsibilities for the on-going delivery of the Cervid OFFS program at the producer's location(s). This training will be updated annually with material as provided by the Canadian Cervid Alliance HACCP coordinator
4. To conduct an annual review and to include updates from the Canadian Cervid Alliance as provided.
5. To maintain the Cervid On Farm Food Safety program material on file.

Farm Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

Position: \_\_\_\_\_ (e.g. owner or operator)

Confirmation by Auditor:

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_

## **INTRODUCTION to Cervids and Cervid Production**

Cervids are members of the deer family and include elk, red deer, white-tailed deer, mule deer, fallow deer, reindeer and other related species. They are ruminants that shed the past year's antlers and grow complete new antlers on an annual basis. While many species are native to North America, some have been imported into Canada from Europe and Asia. Commercial husbandry of cervids has been recorded for over 2000 years (in Rome and China). In North America, the US Department of Agriculture published a guide to raising wapiti (elk) in 1907. The first white-tailed deer farm was established in the early 1940's. In 2006, there were about 90,000 elk, 22,000 red deer, 15,000 white-tailed deer, and 15,000 fallow deer being raised in Canada by 2100 producers.

Regulating the raising of cervids is a combined federal, provincial and territorial responsibility, creating a nation-wide domestic cervid industry. The Canadian Cervid Alliance is the national producer organization that represents the regional and provincial cervid farming organizations.

The primary products of the cervid industry are velvet antler, venison (meat) and live animals for Cervid Harvest Preserves (CHPs, hunting ranches) or breeding stock. Animals are valued differently according to the intended end-market. Animals that excel in antler production are not necessarily well suited for meat production. Factors such as species, velvet antler production, animal size and growth rate, progeny performance, temperament and conformation influence the final appraisal of an animal's worth.

A combination of farm practices and provincial or federal programs contribute towards the health status of animals. Farmed cervids currently must be tested for tuberculosis (TB) every five years. There are a number of surveillance programs operating for Chronic Wasting Disease (CWD), both on farm and in the wild. Animals intended for import or export may be required to have other testing done depending on the origin and destination of the animal.

Many procedures undertaken by cervid producers are performed under veterinary supervision. This requires that producers must establish a valid veterinarian-client-patient relationship and work in cooperation with their veterinarian. That veterinarian must have sufficient knowledge of that specific cervid herd to make informed decisions.

### **Live Animals**

Live animals are sold as breeding stock, trophy animals and for meat and/or velvet production. Semen and embryos are harvested and sold in domestic and international markets for genetic improvement. Depending on the intended market, records outlining the animal's pedigree, health status and production can play an important role when purchasing or selling an animal, especially when exporting outside the province or country.

### **Velvet Antler**

Velvet antler is used widely as a primary ingredient in traditional and holistic medicines and in health tonics. Typically, velvet antler is sold to Asian markets in a "green" or unprocessed state while the North American consumer expects a finished or processed product. Processing facilities in Canada have developed a range of velvet antler products that include capsules, powders, tonics, beverages and pet food or feed supplements.

Cervids are the only animals that grow antlers. They do this annually with the antlers growing up to two inches a day – the fastest growing animal tissue. During this growth or velvet phase, the antlers are cartilaginous and covered in a “fuzzy” layer of skin. The antlers are harvested at this stage when the active ingredients are most concentrated. When the antlers reach a certain stage, they harden, similar to bones, and shed the outer “fuzzy” layer of skin-like tissue. The hardening process involves calcification of the tissues, starting with the antler base and working upwards. Hormones triggered by day-length control the antler growth cycles.

Cervids shed the previous year’s antlers and immediately begin growing a new set. The change in photoperiod sets the bull’s system in motion to drop last year’s antlers (or buttons) and start growing this year’s velvet. Typically, velvet antler is harvested about 55 to 85 days from when the bull dropped last year’s rack or buttons (antler stubs remaining after velvet antler harvest). The antlers harden fully in about 12-14 weeks (85-100) days.

Antler size depends on a combination of genetics, nutrition and health management. Antler size increases with age, reaches a peak at seven to eleven years of age, and then declines.

### **Cervid Meat (Venison)**

Meat from farm-raised cervids is in demand due to its desirable flavour, nutritional quality and tenderness. Some of this growing consumer demand is attributed to health-conscious consumers wanting meats that are lower in fat and calories with mild and distinctive flavour.

Producers planning to export meat across provincial or national borders must pay close attention to the inspections required during slaughter and processing. Each province has different regulations governing the type of inspection necessary to sell meat within the province. Any meat being exported to another jurisdiction must be federally inspected and meet the requirements of the importing country.

### **Program Development**

Since velvet antlers, venison and co-products are consumed, they are all considered as food products. The Canadian Cervid Alliance is promoting the development and implementation of Good Producer Practices that incorporate food safety principles based on the Hazard Analysis and Critical Control Point (HACCP) system. The Food Safety Enhancement Program (FSEP) is the version of HACCP developed by the Canadian Food Inspection Agency (CFIA).

The On-Farm Food Safety Committee of the Canadian Cervid Alliance has compiled this manual with the assistance of VM Technical Services and GEOS Consulting.

### **Other Information Sources**

The provincial and national producer organizations provide an effective communication and lobby tool for new and existing producers. These organizations typically deliver information seminars and conferences that provide producers with opportunities to learn more about the various aspects of commercial cervid production. Provincial departments of agriculture provide economic, production, marketing and regulatory information regarding cervids.

## Glossary

Antlers	The bony structures (usually on males) that grow each year from the head
Brucellosis	Brucellosis is an infectious and contagious bacterial disease of animals and humans caused by <i>Brucella abortus</i> and is passed on by female cattle
Button	The base of the antler left when the antler and velvet is surgically removed.
Cartilaginous	The stage of antler which is immature bone and flexible
Cervid	The zoological classification that includes elk, deer, caribou, moose
Chronic Wasting Disease (CWD)	A progressive, fatal disease of the nervous system of cervids such as deer and elk. It is known as a transmissible spongiform encephalopathy (TSE)
Clean / Sanitize	“Clean” suggests that foreign or undesirable material has been removed as necessary, “sanitize” suggests that a product has been used in an appropriate manner to not only “clean” but to attempt removal of harmful bacteria or pathogens as well.
Communicable / Reportable Disease	“Communicable” disease may be transmitted from one animal to another, “Reportable” disease is specifically identified and listed as such in the Health of Animals Act and pursuant legislation.
Cross-contamination	The transfer of a contaminant from a source of contamination to a non-contaminated item
<b>Good Producer Practices (GPPs) And Best Management Practices (BMPs)</b>	Good Producer Practices and Best Management Practices are broadly recommended steps, measures or procedures that control the operations of a production unit to allow for conditions that are favourable to the production of safe food.
<b>Hazard Analysis &amp; Critical Control Points (HACCP)</b>	A food safety management system that <b>analyzes</b> incoming materials and the process for <b>hazards</b> and then institutes a management system that includes <b>Critical Control Points</b> to minimize or eliminate those hazards
Johne’s disease	A wasting disease in ruminants caused by <i>Mycobacterium paratuberculosis</i> ; also known as paratuberculosis
Listeriosis	A disease caused by a bacteria ( <i>Listeria species</i> ) that can cause death in susceptible individuals and fetuses
Mycotoxin	A chemical poison produced by moulds growing on feed or silage
Ruminant	Animals having a four-chambered stomach
Squeeze	The structure used to immobilize the cervid during treatment or examination (may be hydraulic or manually-operated)
Velvet	The vascular tissue that covers antler during the growing stage
Velvet antler	Antler in the growing stage covered by velvety fur and skin
Veterinary Supervision	Requires that producers must establish a valid veterinarian-client-patient relationship and work in cooperation with their veterinarian. That veterinarian must have sufficient knowledge of the elk herd to make informed decisions.
Yersiniosis	Disease caused by <i>Yersinia pseudotuberculosis</i> – typically causes bloody diarrhea in animals that are stressed

# **GOOD PRODUCTION PRACTICES (GPPs)**

**GPPs considered essential in maximizing food safety and quality on deer and elk farms are labelled “must do”. Other recommended practices are listed as “should” or with other verbs.**

## **1. Premises**

### **1.1. General**

- 1.1.1. Operations on neighbouring properties must be monitored to prevent contamination of animals, water or forage (e.g. spray drift, heavy metals, sour gas wells).
- 1.1.2. Pesticide application must be carried out away from feeding areas and at times when no feed or animals are present in the area. Eliminate overspray in animal areas. Observe label directions for crop chemicals before animals are moved into a sprayed area.
- 1.1.3. Certain diseases and parasites can be transferred from other animal species – you should contact your local veterinarian for more information.

### **1.2. Pasture, Water and Facilities Management**

- 1.2.1. Producers must employ a pasture rotation system in order to minimize transfer of parasites and pathogens.
- 1.2.2. All cervids must have access to a source of clean water. Watering troughs must be checked for debris or contamination regularly and cleaned as necessary. Water must be stored and transported in clean containers.
- 1.2.3. Dugouts and surface water should be restricted from animal contact to minimize pathogen transfer and exposure to parasites.
- 1.2.4. Animals must be protected from lead or heavy metals in paint, batteries, or other sources.
- 1.2.5. If bedding is used, it should be clean, purchased only from reputable sources and be free of contaminants such as wood preservatives and chemicals.
- 1.2.6. Equipment and facilities must be clean and maintained to prevent harmful material from contaminating, injuring or infecting animals.

## **2. Purchasing / Receiving / Storage of Incoming Materials (see BMP #2, 3 in Part II)**

- 2.1. Medications, manufactured feed or feed supplements must be purchased from a reputable supplier (preferably HACCP certified). Banned animal by-products or unlicensed medicated feed must not be used for cervids. All trucks, containers and storage facilities used to transport/store feed must be thoroughly cleaned to ensure that they are free from contaminants prior to their use.
- 2.2. Maintain equipment and facilities to minimize the risk of exposure to biological, chemical and physical hazards. Equipment must not be used to handle feed if it has been previously used for fertilizer, pesticides, manure or other material that could cause contamination of the feed and has not been adequately cleaned. Human and animal visitors must be managed in a similar fashion to minimize any risk of contamination.
- 2.3. Use only drugs and pesticides that are recommended or prescribed by a veterinarian or registered for use with cervids. Use only sanitizers recommended for cervids (or other livestock) and follow the manufacturers' recommendations for rate and dosage.
- 2.4. All incoming material must be purchased and received from a reputable supplier, then inspected and verified upon arrival. Ensure that damaged, punctured or illegibly-labelled containers are rejected and returned / not used. An inventory must be kept of all incoming materials with records must include date received, quantity, supplier and lot code for pharmaceuticals. Fill out Receiving of Feed / Chemicals record or Medication / Drug Use Log when product is received.
- 2.5. Materials, equipment and feed must be stored appropriately. Feed must be stored in clean dry conditions. Packaging materials used for food products must be protected from dust as well as from bird and rodent activity and separate from chemicals and fertilizers. Scrap wire, staples, batteries, petroleum products and hazardous chemicals are dangerous and must be excluded from fenced areas and stored separately from feed.
- 2.6. Chemicals and medications must be secured and stored as recommended by the manufacturer. Pesticides and sanitizers must be kept separate in original containers and held in a cupboard or chest for safety with signs posted. Do not use pharmaceuticals beyond their expiration date. Fertilizers and chemicals must be kept away from the animals so that there is no possibility for chemical contamination of the animal or its meat. If spills occur, they are promptly and properly cleaned up/neutralized when noticed with affected soil dug up and removed from animal areas. Material Safety Data Sheets (MSDS) are available from most chemical suppliers and are convenient for use when incidents occur.

## **3. Sanitation and Pest Control (see BMP #5 in Part II)**

- 3.1. Sanitation of Equipment and Animal Facilities - All equipment must be sanitized before use to reduce the potential of disease or bacterial contamination. Sanitizers must be approved for use with livestock and applied at label recommended rates.
- 3.2. Control of Pests - Populations of pests such as rodents, birds and insects must be controlled since they can carry diseases and parasites and cause cross-contamination. Keeping equipment and facilities clean and sanitized can reduce rodent and insect populations present.

### **3.3. Control of Diseases and Parasites:**

3.3.1. Farming practices must minimize the possibility of transferring diseases, including various *Clostridia* species and Yersiniosis, Salmonella, Brucellosis, as well as the *Mycobacteria* that cause Johne's disease and Tuberculosis. TB and Brucellosis testing are part of mandatory disease control measures. Pathogens are often transferred by fecal material coming in contact with feed or water or by physical handling. Parasites such as liver flukes reduce the vigour of animals and damage the liver. Protozoan diseases such as Cryptosporosis also cause production losses.

#### **3.3.2. Disease control:**

- 3.3.2.1. Introduction and spread of disease must be limited by good management. A beginning herd of healthy animals and minimizing animal stress are critical to disease control.
- 3.3.2.2. Visitors must take precautions and wear clean boots that are not contaminated with soil or manure from other properties. Consider touring human visitors inside farm vehicles.
- 3.3.2.3. Livestock should be fenced out of wetlands to limit *Clostridial* infections and liver flukes. Consult your veterinarian for further assistance.
- 3.3.2.4. Feeding and confinement areas must be well drained and kept clean of spoiled feed and excess manure. Manure from other farms may carry disease. Manure should be applied to pasture areas at least 60 days before placing cervids in the area.

## **4. Personnel and Training**

4.1. Operator Training. Managers, operators and other workers must have sufficient knowledge to appropriately conduct the affairs of the operation. Livestock management includes but is not limited to: nutritional requirements, animal husbandry, antler removal and other animal care practises. Along with understanding the animals, their requirements and their normal behaviour, it is necessary that farm workers be trained in specific techniques such as harvesting of antlers and application of medications or these procedures must be undertaken by veterinarians or qualified technicians. All farm workers need to have a good understanding of the Good Production Practices as outlined in this manual. All individuals involved in the handling of animals must understand the need for proper procedures to minimize risk to both animal and handler. Training programs are available in different locales.

## **5. Production**

5.1. Acquisition of Animals (see BMP #1 in Part II)

- 5.1.1. Animals must only be purchased from suppliers who demonstrate practices to control communicable diseases such as Brucellosis, Tuberculosis, Johne's disease and Chronic Wasting Disease.
- 5.1.2. All mature elk or deer in the herd must conform to the Cervid Health Policy administered by CFIA and provincial authorities.

- 5.1.3. Livestock Inventory Records must be maintained accurately and updated immediately as necessary. These records must include unique animal identification numbers, current and past inventory and details of animal movements. If any health issues subsequently arise, there must be a way to trace the history of these animals. Records of identification tags, movements between herds, and animal treatments must be kept, either by the owner / operator or a regulatory agency.

## **5.2. Feeding (see BMP #3 in Part II)**

- 5.2.1. Formulation - Rations should be properly formulated by a competent nutritionist to provide a balanced diet for different ages of animals. Any feed additives used must be properly recorded. Banned ruminant products must not be used in rations for elk and deer as indicated in CFIA feed policy regulations.
- 5.2.2. Feed storage and feeding - Feed must be stored and fed in a clean area where rodents, birds and other pests are controlled.
- 5.2.3. Feeding of milk replacers - natural source milk replacers (dried, frozen colostrum, goat's milk, etc) must be acquired from safe and reliable suppliers.
- 5.2.4. Producers must observe all current restrictions regarding prohibited feed ingredients.

## **5.3. Animal Health - Administration of Medications (see Medication /Drug Use Log)**

- 5.3.1. Drugs must be administered to a cervid under veterinary supervision by a properly trained individual and recorded on the Medication / Drug Use Log. Drugs must always be checked before using to determine expiry date, and withdrawal time. Unidentified medication must not be used. Remember to check records before administering drugs.
- 5.3.2. Proper hygiene must be practiced. Use disposable needles and syringes to avoid any cross-contamination. A non-sterile needle must never be used to withdraw the solution from the bottle. Needles and syringes must be disposed of carefully to prevent any hazards.
- 5.3.3. Animals must be properly restrained prior to administration of drugs. Injection sites must be clean before injection takes place. Injection sites must be in a non-meat area since there is always a possibility of needles breaking off and remaining in the animal. If broken needles cannot be retrieved from the animal, a record must be made of the mishap since this can create a physical hazard in the meat when slaughtered. This information with individual animal identification must be noted at slaughter.

## **5.4. Velvet Antler Production (see BMP #4 in Part II – CCA Producers' Workbook)**

- 5.4.1. Cervids from which velvet antler will be harvested must not receive any medication within the specified withdrawal period before antler harvest.
- 5.4.2. The harvesting of velvet antler must be done carefully to minimize stress, trauma and injury to the animal. Proper precautions and practices will prevent the introduction of pathogens. Velvet must be frozen as soon as possible after harvest. It is important to remember that velvet antler is a food product and must be handled as such.

- 5.4.3. Tags and records of antler removal dates, etc. must be readily available (see Velvet Antler Report)
- 5.4.4. Antler Harvesting Equipment and Supplies. Tools and facilities must be clean, sanitized and ready to use beforehand. The following equipment must be available before the start of the antler harvest (use Antler Harvest Preparation checklist):
- Container with sanitizing solution (to sanitize saw, tourniquet, and hands before and between uses)
  - Good quality saw (sharp, medium tooth)
  - Surgical tubing or other appropriate elastic tourniquet material
  - Clean cloth for blindfold
  - Sterile needles and syringes (sterile needles for each animal). A secure disposal unit is required for used needles and syringes.
  - Rack to store cut antlers for tagging until freezing as soon as possible (i.e. within 1 hr)
  - Scales (for weighing antlers after freezing)
  - Tags and record book (for identification and tracing of harvested antlers)
  - Freezer (must be brought down to lowest operating temperature (preferably - 10°C ) before harvest begins)
    - Provision must be made in the freezer to allow storage of antlers at a 25-45° angle with tips down to allow for uniform distribution of the blood in the velvet and antler.
  - Frozen velvet antlers may be stored in food grade plastic bags for transport and long term storage to minimize dehydration and contamination.

**5.4.5. Antler Removal Procedure (see BMP #4 [Velvet Antler Harvest](#))**

- 5.4.5.1. Removal of antlers must only be done by a competent individual trained (and certified where required) for velvet antler removal or under veterinary supervision.
- 5.4.5.2. Follow antler removal procedures as specified in BMP #4. There must be no chance of the antler falling when cut since this could cause damage to the base of the antler or to the protective velvet skin, thus creating a potential for contamination. The saw must be sanitized with a food- grade sanitizer before it is used on another animal. Antlers must be removed quickly to reduce stress. Animals must be observed for abnormal bleeding and behaviour after release.

**5.4.6. Antler Handling and Storage**

- 5.4.6.1. Post- Harvest Handling. Antlers must be handled carefully to avoid contamination and kept in a dust and contaminant- free environment. The cut surface is full of blood and provides a good growth medium for bacteria. Care must be taken to prevent contamination of the cut surface. The antlers may be temporarily hung cut-side up on a rack in a clean and dust- free environment. Each antler stick must be immediately tagged with a unique ID.

- 5.4.6.2. Freezing. Freezers used for antler storage must only contain food- grade materials. The antlers should be placed in the freezer at a 25 - 45° angle to minimize any pooling of blood. Variations in freezer temperatures must be avoided with the ideal temperature being -10 °C. Freezers must be placed in a well- ventilated and shady space to minimize temperature fluctuations. Record temperature (see Freezer Temperature Log) with a freezer alarm as backup.
- 5.4.6.3. Frozen storage. To prevent rejection as food, antlers must not thaw and be subsequently refrozen. After complete freezing, the antlers should be sealed in plastic bags for storage over 2 months and to minimize contamination during storage, handling and transport.

## **6. Shipping and Transportation**

- 6.1. Live Animal Transportation. (all persons transporting live animals must follow the requirements of the Recommended Code of Practice for the Care and Handling of Farm Animals: Transportation and other applicable legislation)
- 6.2. Velvet Antler Transportation. Velvet antler must be kept in its frozen state during transport. All applicable legislation regarding the transport and handling of frozen food products must be obeyed including temperature and cleanliness of the transport vehicle.

## **7. Recall Procedures**

- 7.1. A food product recall is carried out when a hazard has been identified in the production of that food product. The purpose of a recall is to remove all potential hazardous animal products from distribution or eventual consumption by consumers. Accurate movement records of the animal and its products are necessary.
- 7.2. Product Identification: Each animal must be identified with a unique Number that allows tracking of the animal and its products. Ear tags are commonly used with secondary tagging. In case of recall all product records must refer to this ID in case a problem is found with the animal or its products which necessitates a recall.
- 7.3. Recall Procedure. If one or more animals or their products have been identified to potentially create a hazard for the consumer, the producer must work with regional and national food inspection agencies to ensure that consumers are protected. The co-operation of processors, distributors, and buyers during this phase is necessary.

## **8. Records:**

### **8.1. Application Records for Drugs and Pesticides**

- 8.1.1. Producers must use all pesticides and pharmaceuticals used on animals under veterinary supervision and observe correct dose and withdrawal period for insecticides, anti-parasite chemicals and medications. An accurate record of date, trade or generic name and amount of application must be kept to provide evidence of proper dosage.
- 8.1.2. Logbooks must record any treatment of either individual animals or herd. An accurate record of date, trade or generic name and dose of injection must be kept for each animal to provide evidence of proper treatment. An inventory must be kept of all drugs purchased (Medication / Drug Use Log)

8.1.3. Antler harvest records must be maintained to allow for traceability of product in the human food chain.

8.2. Operational Checklists. Checklists can be a convenient way of making sure that everything is in place before (or after) an operation. Checklists may include: the tools needed, the supplies (including drugs), proper operation and set-up of equipment (e.g. squeeze, freezer, antler rack). Checklists that are properly dated, signed and verified also provide evidence that GPPs are being applied on farm.

8.3. Individual Animal Records. Production records provide a history of an animal throughout its lifetime. These records may include the following:

- date of birth / dam / sire
- date of weaning / inoculations / health issues
- treatment administered (and any notes)
- date of antler harvest(s)
- velvet antler weights (and any notes) / antler score
- date of calving (and any notes)
- date of sale or death (slaughter or other reasons)
- test results

8.4 Farm Management computer software is available and a useful tool for improving farm management, including record- keeping for food safety verification purposes.

## **Additional References**

*Harvesting Velvet Antler: A Training Manual for Producers* – by Woodbury, Church and Church - Alberta Elk Commission

*CDN Water Quality Guidelines for Livestock* – Task Force on Water Quality Guidelines, 1987

*Elk Farming Handbook* – by Thorleifson, Pearse and Friedel (2000).

*Recommended Code of Practice for the Care and Handling of Farm Animals: Transportation* (1996) – by Canadian Agri-Food Research Council

## **Web Information**

*Deer and Elk Farming Procedures Manual* – Alberta Agriculture  
[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/div11774](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/div11774)

*Elk and Whitetail Deer* – Saskatchewan Agriculture  
<http://www.agr.gov.sk.ca/docs/production/01elkproduction.pdf>

*Recommended Code of Practice for the Care and Handling of Farm Animals: Transportation – Farmed Deer* <http://www.inspection.gc.ca/English/anima/heasan/transport/indexe.shtml>

Canadian Cervid Alliance (includes all Canadian Deer and Elk Associations)  
<http://www.cervid.ca>

## **PART II – BEST MANAGEMENT PRACTICES FOR CERVID OPERATIONS**

A set of general management practices for cervid operations has been developed by the OFFS committee of the Canadian Cervid Alliance. Forms are provided for your use in recording information on specific practices that can have food safety impact for your operation. These specific practices include:

- **BMP #1 – Acquisition of Animals, Semen and Embryos**
- **BMP #2 – Receiving, Storage and Use of Medications, Chemicals and other Materials**
- **BMP #3 – Feeding and Feed Storage**
- **BMP #4 – Velvet Antler Harvest**
- **BMP #5 – Cleaning and Maintenance of Equipment and Premises**

The forms provided for your use include:

- **Form 1 - Premise Checklist**
- **Form 2 - Individual Animal Treatment Log**
- **Form 3 - Pen Treatment Log**
- **Form 4 - Medication / Drug Use Log**
- **Form 5 - Receiving of Feed, Chemicals or other Materials**
- **Form 6 - Antler Harvest Preparation Checklist**
- **Form 7 - Velvet Antler Report**
- **Form 8 - Freezer Temperature Log**

In addition to these forms, Livestock Inventory Records must be maintained accurately and updated as necessary.

Please refer to Part III in this manual for additional details relating to the Critical Control Points developed for Cervid Operations.

# Form 1 - Premise Checklist

**Manager must verify completion of this Checklist at least every six months, and before any significant management events or activities, and ensure that “not OK” situations are rectified.**

Date: \_\_\_\_\_ Inspected by: \_\_\_\_\_ Location: \_\_\_\_\_

*A, B, C....refer to areas of the farm identified on a Premise Map.*

Area checked	A	B	C	D	E	F	G	H	Condition OK / NO	Action needed	Person responsible	Actual date of completion
Pastures (forage / drainage / cover)												
Holding area (projections / drainage / clean)												
Bedding (clean / well drained)												
Water supply (cleanliness)												
Handling area (check before use)												
Feeders (clean / no rodents)												
Fencing / Gates (no damage / tight fit)												
Feed storage area (clean/dry/ no pests)												
Storage of Pesticides / Drugs (secured)												
Treatment equipment (clean)												
Transport vehicle (clean)												

Verified by: \_\_\_\_\_ Date: \_\_\_\_\_

**BMP #1****Acquisition of Animals / Semen / Embryos**

**Person Responsible:** Operator or designate

**Procedure:**

1. Obtain and inspect animal health records of all animals being acquired. The following must be checked:
  - a. Suppliers must demonstrate practices to control communicable diseases. Practices include disease control (e.g. preventing new infections, testing animals and removing infection source) and monitoring programs.
  - b. All mature elk or deer in the herd must conform to the Cervid Health Policy administered by CFIA.
2. Obtain Cervid Movement Permit from CFIA for live animals.
3. Transport animals according to Recommended Code of Practice for the Handling of Farm Animals: Transportation.
4. Observe animals upon arrival before releasing into farm population.
5. Enter previous history of animal into new Animal Health Record.

**Corrective Action:**

1. Animals with communicable disease must not be acquired.
2. Embryos or semen from unhealthy animals must not be accepted.
3. If animals show signs of communicable disease when received at the farm, they must be isolated and treated or returned to seller.
4. Provide additional training for all staff involved in acquisition to recognize hazards.

**Verification Procedure:**

Manager will confirm that animals, embryos or semen are healthy before acquisition and review records.

**Records:**

Animal health records (Individual Animal Treatment Log and Pen Treatment Log Forms)





## **BMP #2 – Receiving, Storage and Use of Medications, Chemicals and other Materials**

*Rationale: Medications, Chemicals and other sensitive Materials are designed, manufactured and prescribed for specific purposes and to be used in specific ways.*

When receiving and using medications, chemicals and other sensitive materials such as packaging for food products, drugs, you must use the **Receiving of Feed, Chemicals and other Materials** form to record information.

The **Premise Checklist** must be completed at least twice each year. The last point on the checklist covers the storage of drugs and chemicals.

**Person Responsible:** Operator or designate

### **Procedure:**

1. Inspect all incoming material and verify to ensure that the material conforms to standards.
  - a. Use only drugs and pesticides that are approved for cervids and / or recommended or prescribed by a veterinarian.
  - b. Do not accept damaged, punctured or illegibly-labeled containers.
  - c. Do not accept feed for non-ruminants since it may contain ruminant by-products. Manufactured feed should come from feed mills that operate under a HACCP system.
  - d. Use only medicated feeds approved for cervids.
2. Record all incoming materials. Records must include date received, quantity, supplier and lot code for pharmaceuticals. Fill out Receiving of Feed / Chemicals Form when product is received and Medication / Drug Use Log when product is used.
3. Secure chemicals and drugs.
4. Store pharmaceuticals as recommended by the manufacturer. Do not use pharmaceuticals beyond their expiry date since effectiveness decreases with time.
5. Keep pesticides and sanitizers separate and in a cupboard or chest for safety.
6. Keep chemicals away from the animals.

### **Corrective Action:**

1. Damaged, punctured, or illegibly-labeled containers must be returned to sender upon receipt.
2. If spills occur, ensure that they are promptly and properly cleaned up when noticed. Material Safety Data Sheets (MSDS) are available from most chemical suppliers and must be convenient for use when incidents occur.
3. Improperly stored materials are moved to the correct storage area.
4. Provide additional training for manager to recognize hazards.



### C. BMP #3 – Feeding and Feed Storage

*Rationale: If contaminated feed is consumed, it may cause an animal to become a food safety hazard. Feed can become contaminated with medications, micro-organisms or pesticides if shipped and stored incorrectly.*

Feeds produced on farm, including fresh water, must be protected from and monitored for any sources of contamination, including farm chemicals, pathogens and parasites.

Feed acquired off- farm must be safe when it comes on to the property and kept safe from any contamination. The carrier must not be carrying anything that could contaminate the feed, e.g. lubricants, pesticides, etc. The truck bed must be clean. The carrier must also be observing bio-safety procedures that include not driving through any farm or facility that could transfer disease to your property. If possible, feed must be unloaded outside of animal holding facilities and pastures from vehicles coming onto the farm. If the driver has been in contact with other animal facilities, he/she must be wearing clean footwear if going into your animal area.

A record must be kept of feed coming onto the property. The following form can be used for that purpose.

You **must** record the following information:

- Date received and transporter information
- Supplier Identification and Food Safety Status of that supplier
- Quantity of feed received
- Condition of feed
- Medication added to feed, if any
- Feed storage location
- Signed by person receiving feed

### **BMP #3 Feeding and Feed Storage**

**Person Responsible:** Operator or designate

**Procedure:**

1. Purchase feed from a reputable supplier, preferably one with a recognized food safety program in place.
2. Properly record any feed additives used.
3. High moisture product is of concern since it may allow mold to grow in the feed.
4. Check to ensure that all trucks, containers and storage facilities are cleaned and free from feed contaminants.
5. Store feed in a clean area that is free of pests, pesticides and chemicals.
6. Do not use the same equipment to handle feed if it has been used for fertilizer, pesticides, manure or other material that could cause contamination of the feed. Caution must be used and equipment must be thoroughly cleaned if separate equipment is not available.
7. Remove twine and wrapping material from bales before feeding forage to animals.
8. Avoid feeding concentrates on the ground to minimize contamination.
  - a. Use feeders that can be cleaned out properly and that will not cause injury to the animals.
  - b. Maintain and clean feeders regularly for sources of contamination and for damage.

**Corrective Action:**

1. Feed with ruminant by-products must not be accepted. If delivered, suspect feed must be kept separate and returned.
2. Remove any moldy feed from storage or feeders and discard.
3. Dirty feeders must be emptied and cleaned properly.
4. Provide additional training for manager to recognize hazards.

**Verification Procedure:**

Manager will review records and confirm that feed is stored and handled correctly every 3 months by inspecting the feed storage and feeding facilities.

**Records:**

- Receiving of Feed / Chemicals
- Premise Checklist



**D. BMP #4 – Velvet Antler Harvest**

*Rationale: Velvet antler must be harvested only from animals that are healthy and have medication withdrawn for the required interval to prevent the transfer of hazards to the harvested antler. The harvest of antlers must be carried out humanely to prevent injury and undue distress to the animal and done under clean conditions to maintain the harvested antler in sanitary condition.*

Velvet antler is a product that may be consumed by persons and animals. It is important that the antlers come from cervids that are healthy and have acceptable drug residues achieved by withdrawing medication for the required interval. Animals must be screened before harvest for signs of disease and injury that may create hazards for the consumer of the harvested antler.

You **must do** the following:

- Check that animals are healthy
- Check that medication is withdrawn for the correct period before harvest and complete the Animal Treatment Log.
- Check that preparations are complete for the antler harvest and complete the Antler Harvest Pre-operation checklist
- Harvest the antlers using accepted humane practices
- Handle the harvested antlers to prevent contamination
- Complete the Antler Harvest record.
- Place antlers in freezer.
- Complete Freezer Temperature log on a daily or at least three times per week basis

**BMP #4  
Velvet Antler Harvest**

**Person Responsible:** Operator or Veterinarian

**Procedure:**

1. Review the Animal Health record to ensure that the proper withdrawal time(s) for all medication has been observed.
2. Complete **Pre-operation Checklist** before harvesting commences for the day.
3. Confine animal correctly in squeeze.
4. Apply tourniquet around base of antler to cut off blood supply to antler.
5. Support antler while cutting with clean hands to prevent dropping or tearing.
6. Cut antler (from outside to center if possible) with sharp, clean/sanitized saw
7. Remove cut antler and place on clean rack in dust-free area temporarily to allow blood on surface to congeal. Tag antler for ID. Repeat with second antler.
8. Apply sanitizer / clotting aid to cut surfaces on animal while protecting eyes.
9. Apply topical insecticide if desired.
10. Remove tourniquet after blood has clotted on the surface to minimize bleeding.
11. Release animal. Animal must be kept under surveillance.
12. Wash and sanitize saw and analgesic equipment after each animal by using a brush with detergent solution (food grade) / rinse with potable water before placing in sanitizer solution (food grade). Solutions must be prepared according to recommendations. Hands or gloves must be sanitized between each animal or disposable gloves used.
13. Weigh and tag each antler with government-supplied tags and record information.
14. Place antler in freezer in a way that distributes the blood evenly along the antler. Do not touch the cut surface or allow antler surfaces to touch the cut area. A sterile film (e.g. Saran wrap) may be used to protect the surface until it is frozen to protect against contamination.
15. When antler is completely frozen, package in sterile bag, remove air and seal to prevent desiccation.
16. Complete records.

**Corrective Action Procedure(s):**

If animal health record shows that the proper withdrawal time has not been observed, the animal will be returned to the herd without the antler being harvested.

If the cut surface of antler is contaminated, ensure that it is re-cut to remove the contaminated surface. Make a note of the corrective action taken on Antler Harvest record.

If needle is broken off during injection and cannot be retrieved, a record must be made of incident on Animal record.

Provide additional training for manager or operator as necessary.

**Verification Procedure:**

The procedures will be verified by someone other than the individual doing the harvesting. The verification procedure will consist of reviewing records (Preparation Checklist and Antler Harvest Records) and visually inspecting the frozen antlers at the end of the harvesting season.

**Records:**

Antler Harvest Preparation Checklist  
Antler Harvest Record

## Form 6 - Antler Harvest Preparation Checklist

Date: \_\_\_\_\_ Location: \_\_\_\_\_

Check the following items (mark NA if not applicable) before harvest begins:

Item	Present	Clean	Comment: Maintained and Operating Properly
Squeeze			
Container with sanitizer solution (food grade)			
Sterile needles and syringes			
Needle disposal container			
Meat saw (sharp, medium tooth, clean)			
Tourniquet material			
Antler storage rack			
Scales			
Antler ID tags			
Record book			
Freezer (temp less than 10°F/-10°C)			
Food Grade Plastic Bags (if used)			

Person completing form: \_\_\_\_\_

---

Verified by \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Comments:





## **E. BMP #5 – Cleaning and Maintenance of Equipment and Premises**

*Rationale: The equipment and premises must be kept clean and well maintained to minimize the possibility of injury or contamination to any animals being treated or handled.*

The condition of the premises and the equipment used to treat and handle the animals has a direct effect on the health and safety of the animal. The premises and transport vehicles must be kept clean and free from things that can cause disease and injury.

You **must do** the following:

- Complete the Premise checklist at least twice each year
- Follow good producer practices for the raising, treatment and shipping of cervids.

## **PART III – CRITICAL CONTROL POINTS FOR CERVID OPERATIONS**

The OFFS committee of the Canadian Cervid Alliance has developed a HACCP (Food Safety) Plan for the production of Live Animals and Velvet Antler as part of the Cervid OFFS program. This Plan has identified two Critical Control Points (CCP) or “must do” items that can have food safety implications for your operation. The procedures for each CCP must be adapted to your farm/ranch operation. These Critical Control Points must be verified by your veterinarian annually.

Critical Control Points are steps in your process where you can

- stop the action,
- make an observation,
- decide if the observation is within the limits previously set,
- continue to next step if within limits
- if not within limits, apply corrective action previously determined
- record your action(s)

**These specific Critical Control Point practices are presented in detail on the following FORM # 10, with associated procedures and records to be kept:**

- **CCP1- Chemical – Animal Acquisition**
- **CCP1- Physical – Animal Acquisition**
- **CCP2- Physical – Treatment – Post Acquisition**
- **CCP3- Chemical – Animal Selection**
- **CCP4- Physical - Treatment**

Canadian Cervid Alliance Producer's Workbook

HACCP PLAN		FORM #10		PRODUCT NAME: Cervid Live Animals / Velvet Antler			
Process Steps	CCP Number	Hazard Description	Critical Limits	Monitoring Procedures	Deviation Procedures	Verification Procedures	HACCP Records
# 3 Animal Acquisition	CCP1-C	Chemical residues in animal tissue resulting from not checking for or observing withdrawal period	Label withdrawal period observed or follow procedure as indicated by veterinarian	Operator or designate reviews Drug record for proper medication as registered or requisitioned by veterinarian and notes withdrawal time before harvest of velvet antler or animal. Withdrawal time is noted on Treatment Log by operator. Operator decides to send animal back to herd or for antler harvest or slaughter  BMP #1 – Acquisition of animals  GPP 5.3 GPP 8.1	If withdrawal time is insufficient, animal is returned to herd by owner for follow-up and not used for food or antler harvest. Operator records deviation on Animal Treatment Log. Operator must acquire additional training if necessary. Operator must review and change monitoring procedures as necessary.	Veterinarian or designate observes operator carrying out duties where possible or interviews operator, annually observes health of animals, and reviews, signs & dates records of drug use to ensure that withdrawal periods have been met before animals are used for food or antler harvest	Medication / Drug Use Log  Individual Animal Treatment Log  Pen Treatment Log  Velvet Antler Report  Records must be kept for the lifetime of the animal(s) involved
# 3 Animal Acquisition	CCP1-P	Presence of broken needles from injection	No unidentified needle present in animal	Operator or designate must visually check needle for damage before and after each animal is injected. Operator or designate must note any problems on Treatment Log  BMP #1 – Acquisition of animals  GPP 4.1 GPP 5.3	If needle is broken and not removed from the tissue, operator must record location of needle on Animal Treatment Log with animal number. Next owner of animal must be notified of hazard(s) present in animal. If needle is damaged, it must be discarded. Operator must acquire additional training in injection procedures if necessary. Review and change monitoring procedures as necessary.	Veterinarian or designate observes operator carrying out duties where possible or interviews operator as to actions taken, reviews animal treatment records and signs/dates records	Medication / Drug Use Log  Individual Animal Treatment Log  Pen Treatment Log  Records must be kept for the lifetime of the animal(s) involved

Canadian Cervid Alliance Producer's Workbook

HACCP PLAN		FORM #10		PRODUCT NAME: Cervid Live Animals / Velvet Antler			
Process Steps	CCP Number	Hazard Description	Critical Limits	Monitoring Procedures	Deviation Procedures	Verification Procedures	HACCP Records
#9 Treatment	CCP2-P	Presence of broken needles from injection	No unidentified needle present in animal	Operator or designate must visually check needle for damage before and after each animal is injected. Operator or designate must note any problems on Treatment Log  BMP #1 – Acquisition of animals GPP 4.1 GPP 5.3	If needle is broken and not removed from the tissue, operator must record location of needle on Animal Treatment Log with animal number. Next owner of animal must be notified of hazard(s) present in animal. If needle is damaged, it must be discarded. Operator must acquire additional training in injection procedures if necessary. Review and change monitoring procedures as necessary.	Veterinarian or designate observes operator carrying out duties where possible or interviews operator as to actions taken, reviews animal treatment records and signs/dates records	Medication / Drug Use Log Individual Animal Treatment Log Pen Treatment Log Records must be kept for the lifetime of the animal(s) involved
# 20 Animal Selection	CCP3-C	Presence of broken needles from injection	No unidentified needle present in animal	Operator or designate must visually check needle for damage before and after each animal is injected. Operator or designate must note any problems on Treatment Log  BMP #1 – Acquisition of animals GPP 4.1 GPP 5.3	If needle is broken and not removed from the tissue, operator must record location of needle on Animal Treatment Log with animal number. Next owner of animal must be notified of hazard(s) present in animal. If needle is damaged, it must be discarded. Operator must acquire additional training in injection procedures if necessary. Review and change monitoring procedures as necessary.	Veterinarian or designate observes operator carrying out duties where possible or interviews operator as to actions taken, reviews animal treatment records and signs/dates records	Medication / Drug Use Log Individual Animal Treatment Log Pen Treatment Log Records must be kept for the lifetime of the animal(s) involved

Canadian Cervid Alliance Producer's Workbook

HACCP PLAN		FORM #10		PRODUCT NAME: Cervid Live Animals / Velvet Antler			
Process Steps	CCP Number	Hazard Description	Critical Limits	Monitoring Procedures	Deviation Procedures	Verification Procedures	HACCP Records
#22 Treatment	CCP4-P	Presence of broken needles from injection	No unidentified needle present in animal	Operator or designate must visually check needle for damage before and after each animal is injected. Operator or designate must note any problems on Treatment Log  BMP #1 – Acquisition of animals  GPP 4.1  GPP 5.3	If needle is broken and not removed from the tissue, operator must record location of needle on Animal Treatment Log with animal number. Next owner of animal must be notified of hazard(s) present in animal. If needle is damaged, it must be discarded. Operator must acquire additional training in injection procedures if necessary. Review and change monitoring procedures as necessary.	Veterinarian or designate observes operator carrying out duties where possible or interviews operator as to actions taken, reviews animal treatment records and signs/dates records	Medication / Drug Use Log  Individual Animal Treatment Log  Pen Treatment Log  Records must be kept for the lifetime of the animal(s) involved