



Canadian Goat On-Farm Food Safety Program

Producer Manual



Why is an On-Farm Food Safety Program Necessary?

Welcome

Welcome to the Canadian Goat On-Farm Food Safety Program. This on-farm food safety program, chaired by the Canadian National Goat Federation, is industry driven and was developed by industry personnel from across Canada. The program is being implemented to meet food safety challenges facing the goat industry now and in the future.

Food safety is now a priority both nationally and internationally for governments and food industries. This is due to several publicized food safety crises around the world and changes in government food inspection systems. Food safety is also a concern for consumers. Many people never get a chance to visit a farm, and know very little about how goats are raised, but they do care about what they eat. Many grocery stores are beginning to talk about their own food safety programs, and are asking about what producers do. Some questions consumers have are:

- Do farmers use too many antibiotics?
- How do I know there aren't any chemicals in the meat or in the milk?
- Are there hormones in my milk or in my meat?

Consequently, consumers are demanding proof that the foods they are consuming are safe. In response to these demands, many food buyers, retailers and restaurants are insisting on new standards for the products they purchase from food processors and producers. These standards will assure consumers that procedures are in place to monitor and minimize food-borne hazards. For agricultural commodities, this means applying approved standards not only to the food-processing sector, but also to farm management practices.

Checks and balances already exist in the goat industry to ensure a safe meat and milk supply to the consumer. However what the Goat On-Farm Food Safety program does is take it one step further by enabling the producer to reduce or eliminate costly meat and milk risks before they happen and not after when the damage is irreversible. Damage such as:

- Antibiotics in the raw milk or meat that cannot be removed
- Milk with high bacteria counts may be pasteurized to reduce the human health risk, but the resulting product is of poorer quality and flavour and will have a shorter shelf life.
- Broken needles in meat damage the meat and pose a human health risk.

Since none of these situations can be 'fixed' once the hazard has occurred the program is intended to:

- Enhance a producer's ability to control and prevent food safety hazards related to milk and meat on the farm;
- Increase awareness and understanding of food safety risks;
- Improve communication on the farm;
- Ensure everyone on the farm implements procedures consistently; and,
- Increase profitability through decreased product losses

What is the program based on?

Like on-farm food safety programs developed by other commodity groups, the Canadian Goat On-Farm Food Safety program is based on an internationally recognized system of food safety. Both the *Codex Alimentarius Commission*, which is part of the *World Health Organization* (WHO) and the *Food and Agriculture Organization* (FAO), endorse this recognized system. The system uses Hazard Analysis Critical Control Point (HACCP) principles, which is a systematic, scientific approach to food safety. It is a preventative approach that focuses on identifying food safety hazards and implementing measures to prevent these hazards from entering the food supply.

What are the food safety hazards?

Food safety hazards are classified as either biological, chemical, or physical. Biological hazards are bacteria, viruses, yeasts, and moulds - basically any human pathogen. Any chemical that is not supposed to be in the meat or milk, such as an animal health product residue, would be considered a chemical hazard. An example of a physical hazard would be a broken needle that remains in the meat. Each of these hazards has the potential to cause human injury or illness. To effectively reduce or eliminate these food safety hazards in production systems, HACCP based programs apply a systematic seven-step approach.

The seven HACCP steps are:

1. Identify potential physical, chemical and biological hazards that occur during livestock production, and reduce food safety.
2. Determine the Critical Control Points (CCPs) – or steps where these hazards can be prevented, eliminated or reduced during production.
3. Establish limits that must be met to ensure that each CCP is under control.
4. Establish regular observations or tests to monitor each CCP
5. Establish corrective actions to take if monitoring indicates a problem.
6. Verify that all procedures regarding CCPs are working correctly.
7. Establish an effective record keeping system that documents the HACCP based plan.

The Goat On-Farm Food Safety Program is based on these seven HACCP principles.

What is Involved in Implementing the Program?

The Goat On-Farm Food Safety program manual provides you with the preventative measures and the documentation you will need to comply with the program. Since it is a generic program and can be applied to all goat farms, you will need to adapt it to suit the unique needs of your farm. Utilizing the preventative good production practices and record keeping system on your farm are the basic steps to implementing the program. You will need to train yourself and your workers about food safety. You will also need to record when mistakes happen and the actions you take to prevent additional problems. Mistakes will happen on the best-run farm, however documenting these incidents further strengthens and verifies that your on-farm food safety program is working effectively.

About this Manual

It is important to note that participating in this program will not increase your liability if problems with food safety arise. Whether you follow this program or not, you are currently responsible for the safety of the food you produce. However, involvement in the program provides you with added security as it shows that you have taken due diligence to prevent food safety hazards. This means that if something goes wrong, you can demonstrate through your records that you have taken all reasonable measures to prevent the problem from happening or getting worse. The key word is 'demonstrate' as written records show that you have taken precautions.

Other benefits that can be derived from implementing the program include:

- Enhanced consumer confidence in the safety, quality and consistency of goat products;
- Potential increased market share for Canadian goat products
- Enhanced detection and prevention of on-farm food safety concerns
- Improved understanding of flock management and potential reduction of animal health product use as a result of consistent record keeping
- Complementing and enhancing of food safety program beyond the farm gate;
- Enhanced opportunity to meet buyer demands by providing a credible audit process for producers who wish to become certified; and
- Minimization of costly product recalls

The first section of this manual identifies when food safety problems are most likely to occur on goat meat and dairy farms. The Good Production Practices (GPPs) found within the first section are practices that you should follow to prevent or reduce the risk of food safety hazards, and what you can do to control the situation should a problem occur. Each of the GPPs is identified as either a **“Must Do”** or a “Recommended” practice. The **“Must Do”** practices are in bold font and are critical to food safety. To comply with the program's requirements you must follow these practices at all times. These are also the practices that would be checked by an auditor should you wish to be certified as fully compliant on the program.

“Recommended” GPPs are practices that are of significant concern to on-farm food safety, but have a lower risk of introducing a food safety hazard than the **“Must Do”** category. Following the recommended points will help contribute to overall program compliance and enhance your management practices.

The second section consists of thirteen record keeping forms. One of the key components of the Canadian Goat On-Farm Food Safety program is maintaining an accurate and verifiable record keeping system. By maintaining these records, you will have a concrete and traceable means to show the precautions and good management practices you are taking to prevent food safety hazards on your farm. It is acceptable if you prefer to create your own record keeping forms, for compliance to the program it is necessary that you record the same information required on the forms within this manual.

Finally, the appendices contained in the last section of this manual provide further information and are a resource for helping you obtain more information if desired.



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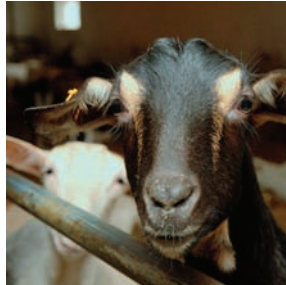
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On-Farm Food Safety Program

Section A



On-Farm Food Safety Practices for Goat Producers

Introduction:

This section of the manual identifies areas of goat meat and milk production where human food safety hazards may be introduced. These include:

- Animals – buying, identification, managing and selling;
- Animal Health Products – selection, storage, use and disposal;
- Feed, Water and Bedding – buying or sourcing, storage, treatment, mixing, medicating, distribution and pasture;
- Milking – sanitation, milking, milk cooling, handling & storage and transportation;
- General Farm Management – the buying, storage and use of farm and industrial chemicals; and
- Personnel – biosecurity and training.

You can take a wide range of practical steps to enhance the safety of food produced on your farm (many of which you already do!); these are called Good Production Practices (GPPs).

The GPPs that **must be followed at all times** in order to comply with the Canadian Goat On-Farm Food Safety Program (GOFFSP) are listed first under each section in this manual, with the sub-title Requirements and are in **bold font**. The “Recommended” GPPs are practices that are of significant concern to on-farm food safety, but have a lower risk of introducing a food safety hazard than the hazards addressed by the “Required” GPPs. Following all of the required and recommended practices will contribute to overall program compliance.

In addition, the GOFFSP identifies four areas of goat meat and milk production that pose sufficient food safety risk that you will be required to take and document special steps to reduce the risk. These are called Critical Control Points (CCPs). There are only four areas of goat production with CCPs:

1. Treating animals with animal health products;
2. Broken needle handling and reporting;
3. On-farm mixing of medicated feed or water; and
4. Milk cooling and handling.

In each of these four cases, the manual outlines what practices you have available to you to reduce the risk to the consumer. Not all of these are Must Do's, as in some cases you will have a choice of actions to take. Throughout the manual, practices associated with CCPs are highlighted with the goat's head logo:



Many of these management practices involve keeping on-farm records. Any record-keeping forms referred to in this manual can be found in Section B – On-Farm Records, and include examples of how to complete them correctly.

Responsibility:

Good production practices typically fall into one of three categories:

- **Monitoring Procedures:** Regular observation of all management procedures is carried out by the producer or a trained employee.
- **Deviation Procedures:** If a problem occurs, corrective actions must be carried out by the producer or a trained employee.
- **Verification Procedures:** Someone other than the producer or person performing the job is responsible for verifying that the procedure is carried out correctly.

Producers must ensure that they (and their families and employees) follow all Federal and Provincial Legislation in relation to their agricultural practices.

1. Facilities & Premises

General cleanliness, equipment maintenance and sanitation will help to reduce the potential of food safety hazards occurring on farm. It is important to clean and sanitize all goat production equipment that can potentially transfer food safety hazards between animals.

The farmyard, buildings, wastewater disposal areas and the manure storage areas should be properly located, designed, and well maintained. This will help decrease the risk of contaminants entering the milk by:

- preventing stagnant water;
- controlling unwanted plant growth;
- controlling rodent and insect populations;
- minimizing bacterial growth; and
- preventing manure runoff, wastewater and odours from entering the barns, dairy or milkhouse.

Food Safety Concerns:

If the farmyard and surrounding areas are not properly located, well designed and maintained, the possibility of the meat or milk being contaminated may increase.

Facilities and equipment that cannot be properly cleaned may contribute to contamination of the meat or milk.

If the milkhouse is not located and constructed of materials that maintain cleanliness, food safety hazards and odours may contaminate the milk.

1.1 Manure Handling and Nutrient Management

Proper design and location of the animal housing area will help to ensure that the does are clean before entering the milkhouse. This will aid in preventing bacteria and physical contaminants from entering the milk. The animal housing area should be clean, dry and comfortable for the goats. Housing your animals in a clean and dry environment may help to decrease the use of animal health products as the animals will be less susceptible to diseases.

Nutrient management involves monitoring the amounts of fertilizers, manure and municipal sludge that is applied to the soil, in order to avoid a build-up of excess nutrients. Excess nutrients in the soil may lead to contamination of crops and/or water sources.

Food Safety Concerns:

Maintaining a clean, healthy dairy herd helps to minimize physical, biological and chemical contaminants in the milk.

Excessive manure on the animal may come in contact with the carcass at slaughter, transferring bacteria to the meat. In goat milk production farms, dirty udders increase the risk of contaminating the milk. Soiled hair coat will be a greater problem if the manure is not managed properly in goat housing areas.

Improperly applying nutrients (manure) to pasture or to the soil used to grow feed for your goats may lead to a build-up of potentially harmful substances that may result in unknown residues in meat or milk.

Requirements:

1.1.1 Maintain the animal housing area in a manner that avoids manure accumulating on the animals, especially does. Use adequate bedding to ensure cleanliness and health of the udder. Holding pens and traffic areas (alleys) must be kept clean and dry with no excessive manure accumulation.

1.1.2 Do not use mouldy or spoiled silage as bedding. Exposing your does to spoiled silage may result in listeria contaminating the milk.

1.1.3 Follow municipal or provincial regulations regarding nutrient management (purchasing, storage sites and the application of manure, commercial fertilizer or municipal sludge to land) as well as composting and disposal of deadstock.

1.1.4 Purchase only commercial fertilizers licensed under the Federal Fertilizer Act.

1.1.5 Dispose of deadstock in accordance with provincial legislation.

In addition, you are encouraged to:

1.1.6 Minimize the amount of manure on animals by providing sufficient bedding and cleaning the housing areas as needed. If a manure pack system is used, add fresh bedding as necessary to keep the surface as dry as possible. Otherwise, regularly remove the manure to reduce a build-up.

1.1.7 Consider establishing a nutrient management plan for your farm. Consult with a nutrient management specialist when developing your plan.

1.2 Ventilation

You are encouraged to:

1.2.1 Maintain adequate air quality in livestock facilities to prevent health problems.

1.2.2 Prevent excessive humidity in the buildings to help reduce germ and mould growth. Ensure the ventilation system is functioning properly. The recommended relative humidity for buildings housing livestock during the winter is between 60-75%.

1.3 Dairy Facilities

The milkhhouse is the final on-farm site for controlling the safety and quality of the milk. Milkhhouse operations such as milk handling, freezing, storage and equipment cleaning have a direct impact on the safety and quality of the milk. The milkhhouse should be used exclusively for:

- collecting, cooling, holding or transferring the milk; and
- cleaning, sanitizing and storing material, and equipment used to handle the milk.

The design and structure of the milkhhouse, including the location of the installed equipment must facilitate milkhhouse activities and allow for:

- equipment maintenance and proper cleaning;
- proper functioning of the equipment used to collect, transfer, store and cool the milk; and
- visual examination of the equipment.

Please see Appendix 1 for full details on the design and structure of the milkhhouse. Producers must follow all provincial legislation in regards to goat dairy management.

2. Animals and Animal Management

2.1 Buying, Receiving and Isolating New Animals

Communication with the seller is necessary to ensure the buyer receives an accurate history of all of the animals being purchased. If direct communication with the former owner is not possible, purchasers must ensure that any animals potentially contaminated with animal health product residues, or other food safety hazards are not sold for slaughter.

Other animals involved in your operation, such as herding dogs, guardian animals, live pest control, semen and embryos are also potential sources of diseases that may pose a food safety risk to humans. Similar care should be exercised when purchasing these animals and products.

Food Safety Concerns:

If a buyer is not made aware that the purchasable animals contain an animal health product residue or a broken needle, they may be at risk of consuming product residues or being injured.

Goats themselves, or other domestic animals that are part of the goat operation, may carry biological food safety hazards.

The process of sourcing new animals may expose the producer to food safety risks that could be brought back to the home herd on the producer's clothing, vehicle or person.

New goats entering the herd, or other domestic animals arriving on the farm, may carry diseases that may spread to the rest of the herd, ultimately affecting food safety.

Requirements:

2.1.1 Maintain clear, easy-to-follow records of receiving dates, sources and tag or tattoo numbers of all animals purchased.

2.1.2 Obtain a signed shipping record (Record 1: Declaration of Shipping or Receiving Status), for each animal or group of animals purchased. If the seller is unable to supply the signed shipping record (Record 1: Declaration of Shipping or Receiving Status), or the equivalent information, you must keep the animal(s) for at least 28 days before re-shipping or as advised by the veterinarian. Follow the procedure outlined in section 10.1 of this manual.

2.1.3 Inspect all animals upon arrival for general condition, evidence of disease and check paperwork for any animal health product withdrawal dates that have not been met. Be sure to note any abnormalities on Record 1: Declaration of Shipping or Receiving Status.

In addition, you are encouraged to:

2.1.4 When possible, purchase stock from other producers involved in the Canadian Goat On-Farm Food Safety Program, that follow an animal health program and recommended biosecurity protocols.

2.1.5 Purchase only semen and embryos that have been collected at an approved collection site (e.g. CFIA accredited facility).

2.1.6 Verify that the animals received are those purchased by checking animal identification (tags, tattoos).

2.1.7 Isolate any new animals from the rest of the herd for a minimum period of two weeks. Consult your veterinarian if any health issues arise during that time.

2.2 Animal Identification

Requirements:



2.2.1 Use a reliable system for identifying and tracking individual animals or groups (pens) of animals that have been treated with an animal health product (e.g. medicated feed and medicated water). A reliable system may include:

- ear tags;
- livestock markers; or
- pen description and/or identification number.

If you use livestock markers, ensure that the mark remains visible until the withdrawal period has been met.

2.3 Routine Management Procedures

It is important to clean and sanitize all equipment used in goat production that can potentially transfer food safety hazards among animals.

Food Safety Concern:

Equipment used in the routine management of goats, such as for disbudding or dehorning, castration, foot-trimming or shearing may transfer food safety hazards between animals.

You are encouraged to:

2.3.1 Purchase animal management equipment that is clean and sanitary, and sanitize it in an appropriate manner before use.

2.3.2 Thoroughly clean and sanitize on a regular basis any equipment used to perform routine management procedures on goats, such as disbudding or dehorning, castration, foot-trimming, assisting kidding or shearing. Consult with your herd veterinarian as to appropriate products for cleaning and sanitizing.

2.4 Selling Animals

Producers must ensure that all animals sold for slaughter, finishing or as breeding stock are free from food safety hazards and that the purchasers are directly informed of any potential problems. These precautions must be taken for all animals sold, as even culled breeding stock will likely end up as human food.

Food Safety Concern:

Meat containing animal health product residues or other hazards such as broken needles presents a food safety risk to consumers.

Requirements:



2.4.1 Check Record 2: Animal Health Product Treatment (dairy producers use Record 3) before shipping any animals to ensure that the withdrawal times for any used animal health products have been met and animals do not have broken needles. Animals sold for slaughter or to an unknown buyer (e.g. public auction), must meet all animal health product withdrawal periods and be free of broken needles.



2.4.2 Have corrective actions in place in the event animal(s) that pose a food safety risk are accidentally sent to slaughter or the public auction and record on Record 4: Problems and Corrective Actions.



2.4.3 Producers may sell goats to known buyers (e.g. private sales) that have not met animal health product withdrawal periods or have broken needles, if a written record identifying the contaminated animal(s) is supplied to the buyer and recorded on Record 1: Declaration of Shipping or Receiving Status. Mark the animal(s) of concern in a highly visible manner using a unique ear tag or crayon mark and note the marking on Record 5: Animal Health Product Inventory.



2.4.4 Contact the packing plant or auction market immediately if any animals have been accidentally shipped to slaughter before meeting all animal health product withdrawal periods or they have undeclared broken needles in them. Record the incident on Record 4: Problems and Corrective Actions.

You are encouraged to:

2.4.5 Keep an up-to-date phone list of relevant contacts (veterinarian, abattoir, auction market, processor etc.) in a place that is accessible to everyone working on your farm.

2.5 Shipping Animals

Food Safety Concerns:

Animals can be exposed to hazardous chemicals when they are shipped, which may be ingested, absorbed and contaminate the meat.

Unsanitary conditions during shipping may increase the risk of bacteria from soiled hair, contaminating the carcass during slaughter and processing.

Requirements:



2.5.1 Maintain a checklist in an accessible location of steps to be taken before shipping or selling any animals. The list should include checking:

- **the animals' identification with Record 2: Animal Health Product Treatment (dairy producers use Record 3) to ensure that all animals being sold for human consumption are free of animal health product residues and needle fragments;**
- **if an animal is being shipped within the withdrawal period as documented on Record 2, you must complete Record 1: Declaration of Shipping or Receiving Status and ensure it accompanies the animal as it leaves your farm;**

- **condition of the animal(s) to ensure they are fit for transport (i.e. relatively free of tag, able to walk and stand properly, not too thin); and**
- **condition of the transport vehicle to ensure it has been thoroughly cleaned, properly maintained and is free of hazardous materials.**

In addition, you are encouraged to:

2.5.2 If you use your own equipment to transport goats, ensure there are no hazardous chemicals present in the vehicle before loading the animals. Hazardous chemicals include, but are not limited to: cleaning agents, fertilizers, pesticides, paints, stains, medicated products and treated seed.

2.5.3 Cover the truck or trailer floor with straw or other bedding material to reduce soiling of the fleece with manure and mud.

2.5.4 If you use trucking companies, ensure there are procedures in place for cleaning and maintaining sanitary conditions in the trucks. If conditions in the truck or trailer are undesirable, take corrective action if possible and record the information on the manifest or bill of lading for future reference.

Note: For more information on shipping animals, refer to the ***Code of Practice for the Care and Handling of Goats*** (<http://www.nfacc.ca/codes-of-practice/goats>) or the ***Code of Practice for the Care and Handling of Farm Animals: Transportation*** (<http://www.nfacc.ca/codes-of-practice/transport>)

3. Biosecurity

A biosecurity plan will protect the health of your animals by preventing disease – and ultimately protect the quality of the food you produce.

Food Safety Concern:

New animals or equipment, employees or visitors to the farm may introduce disease causing organisms into the herd that may ultimately result in a food safety risk to consumers.

For a copy of the National Farm-Level Biosecurity Standard, please contact the Canadian National Goat Federation (CNGF).

Requirements:

3.1 Dispose of deadstock in accordance with provincial legislation.

In addition, you are encouraged to:

3.2 Develop a biosecurity plan for your farm. (See www.inspection.gc.ca or contact the CNGF for more details.)

3.3 Control traffic on and off the farm with gates and signs at access points to identify that biosecurity is in effect on the farm.

3.4 Limit the access of visiting vehicles to the farm; where additional access is required, appropriately sanitize visiting vehicles first.

3.5 Keep a log of visitors to the farm, with contact information and previous and next farm visits.

3.6 Have disposable plastic booties available for visitors to wear over their own footwear.

3.7 Purchase healthy livestock from reputable suppliers of equal or higher health status than your farm. (See Section 2.1 – Buying, Receiving and Isolating New Animals.) Purchase semen and embryos from an accredited facility to decrease the risk of disease transmission that may accompany animal introductions.

3.8 Ensure that workers (regular and casual) are appropriately trained in your farms' biosecurity protocols. (See Section 9: Training Personnel).

3.9 Farm workers who visit other farms or animal facilities (sales barns, etc) should take precautions to prevent introducing pathogenic bacteria or parasites to the home herd, such as wearing alternate clothing and footwear.

3.10 Appropriately clean and disinfect equipment that is new to the farm before arrival, and after any periods of removal from the farm (e.g. after shows).

3.11 Make efforts to control the access of wildlife (wild ungulates, birds) to your animal facilities and pastures through adequate fencing, screening, and prompt removal and disposal of any dead livestock or wildlife.

4. Animal Health

Animal Health Products

Preventing animal health product residues in meat and milk is a serious food safety concern for all livestock industries. Animal health products may include, but are not limited to:

- antibiotics;
- animal health products mixed into the feed and water;
- internal and external parasite control products;
- vaccines;
- insect repellents;
- reproductive hormones;
- medicated milk replacers;
- wound dressings; and
- naturopathic or homeopathic products (consult with your veterinarian).

4.1 Isolation of Sick Animals

Food Safety Concern:

Sick animals may spread diseases to the rest of the herd, with potential consequences for the meat and milk that they produce.

You are encouraged to:

4.1.1 Monitor all animals at least daily to check for signs of ill-health.

4.1.2 Immediately physically separate any animals showing signs of ill-health from the rest of the herd. This will assist in further diagnosis and treatment, as well as limiting potential spread of the illness.

4.1.3 Care for isolated animals after the healthy animals in order to limit spread by caretakers.

4.1.4 Isolation facilities should have their own feed supply and equipment, water pails and other routine equipment.

4.1.5 Caretakers should consider wearing dedicated clothing (such as coveralls) when working with isolated animals.

4.1.6 Caretakers should wash their hands and use a footbath or change their boots after working in the isolation area.

4.2 Purchasing Animal Health Products

Food Safety Concern:

Purchasing the wrong animal health product, or an animal health product that is expired or contaminated, could result in unknown animal health residues in meat or milk.

Requirements:

4.2.1 Producers in Quebec must have a prescription for all animal health products used on their farms.

4.2.2 When purchasing animal health products, ask for the product insert, which contains complete instructions for using and storing the product. Keep the product insert as an additional reference for each animal health product that you use on your farm.

In addition, you are encouraged to:

4.2.3 Producers in Ontario are recommended to successfully complete the Livestock Medicines Course for goats.

4.2.4 Purchase animal health products through a reputable supplier.

4.2.5 Check the expiry date on each animal health product before purchasing.

4.2.6 Buy the smallest amount of a given product that you require to ensure it will be used promptly.

4.3 Receiving Animal Health Products

Food Safety Concern:

Receiving the wrong animal health product may expose your goats to contamination or unintended animal health products, which may result in hazardous materials or unknown residues in the meat or milk.

You are encouraged to:

4.3.1 Refuse to accept any animal health product that does not have a proper label, tag or product description that is in accordance with the Feed and Health of Animals Regulation.

4.3.2 When receiving animal health products ensure that what you received is what you ordered, and acknowledge that you did this by initialing the bill of sale.

4.3.3 Inspect animal health products for possible damage or contaminants before accepting delivery. Do not accept or use materials that show obvious signs of damage or contamination.

4.4 Storing Animal Health Products

Chemical changes may occur in animal health products that are not stored according to the manufacturer's directions for temperature, humidity and light sensitivity, or if the expiry date has passed. These changes may alter the amount of time required for the animal health product to be eliminated from an animal's body. This may result in a residue in the meat even when the withdrawal period stated on the product label or package insert is met.

Food Safety Concerns:

Animal health products that are improperly stored or handled will not be fully effective for their intended purpose and will not have predictable withdrawal periods.

Goats may inadvertently consume animal health products that are not stored in a secure place. This could result in unknown withdrawal periods and/or animals shipped to slaughter containing animal health product residues.

Note: For information on purchasing medicated feeds, see Section 5.

Requirements:

4.4.1 Store animal health products and supplies in secure locations (i.e. inaccessible to goats). Record storage location on Record 5: Animal Health Product Inventory.



4.4.2 Each time you receive an animal health product, update your inventory lists. Use Record 5: Animal Health Product Inventory and Record 6: Feed Inventory if purchasing medicated feeds.



4.4.3 Review your Record 5: Animal Health Product Inventory and Record 6: Feed Inventory for accuracy at least yearly. Upon completion of each review, sign and date the record, and begin a new one.

4.4.4 Discard or return to place of purchase any open containers and improperly labeled products. Record discarded medications on Record 5: Animal Health Product Inventory.

4.4.5 Use only livestock marking products that are clearly labeled for use on animals.

4.4.6 If animal health products are found where they are not supposed to be, immediately move the products to a suitable and secure place. Record incident on Record 4: Problems and Corrective Actions.

4.4.7 Adhere to the storage requirements for temperature, light and humidity as stated on the product label or your veterinarian's instructions. Discard any products that have:

- expired;
- been accidentally frozen;
- been exposed to excess heat; or
- had the tops damaged by repeated use.

In addition, you are encouraged to:

4.4.8 If using multiple doses from a bottle, place a sterile transfer needle in the bottle and leave it there to repeatedly draw the product into the syringe. Use a different needle to inject the animal.

4.4.9 It is recommended that needles be removed from bottles before storage to help prevent contamination of the animal health product.

4.5 Using Animal Health Products

All registered or tested and approved uses of an animal health product will appear on the product label or package insert. Using medications in a manner not outlined on the label or insert, or for the animals specified, is considered extra- or off-label use.

All products, regardless of whether or not they are extra- or off-label use, must be approved animal health products (e.g. must have a valid DIN number).

The Canadian Goat On-Farm Food Safety Program requirements differ depending on the animal health product's classification. Animal health products are classified as:

- **Registered Animal Health Products** – products that are tested and approved for use.
- **Prescription Animal Health Products** – may only be purchased with a prescription from your veterinarian. The symbol 'Rx' will appear on the product label.
- **Over-the-counter (OTC) Animal Health Products** – may be purchased through a veterinary clinic or another registered outlet such as a feed company or pharmacy.

Registered Animal Health Products: Prescription and Over-the-counter Animal Health Products

Requirements:



4.5.1 Follow drug dosages, duration of treatment, withdrawal periods and suggested age or weight of the animal(s) treated exactly as described on the product label or package insert.



4.5.2 Ask for a detailed product insert when you purchase animal health products in case they are not supplied with each bottle. Keep a copy of the product insert with your records for each type of animal health product you use on your farm.



4.5.3 Calibrate and check all automatic syringes to ensure accuracy of the dosages being administered and record in comment section of Record 2: Animal Health Product Treatment (dairy producers use Record 3).

4.6 Off- or Extra-Label Use of Animal Health Products

At times it may be necessary to administer an animal health product at a different dosage or duration than stated on the product label. Furthermore, many commonly-used animal health products are not registered in Canada for goats. To help ensure that withdrawal periods are met, veterinary involvement is required when animal health products are used in a manner other than what is directed on the package label or product insert.

Using animal health products in a manner other than what is directed on the product is called **extra-label** or **off-label use**. Extra-label use includes, but is not limited to situations when a product is:

- administered to species that are not listed on the label;
- used to treat diseases and conditions that are not listed on the label;
- used at a different dosage than those stated on the label;
- administered using a route, frequency, duration or timing of treatment not listed on the label; or
- administered to animals being shipped for slaughter before the stated withdrawal period.

Any person using or prescribing the extra-label or off-label use of an animal health product is subject to regulatory action if product residues are found in human food.

Food Safety Concern:

If an animal health product is not used exactly as instructed on the product information, or is used for a different species, product residues may not be cleared from the animal's tissue within the stated withdrawal period.

Requirements:

4.6.1 Have a valid patient/client/practitioner relationship with a veterinarian prior to the extra-label use of an animal health product. Refer to the Glossary for a description of a patient/client/practitioner relationship.



4.6.2 Have written instructions from a practising veterinarian when using prescription animal health products in an extra-label manner. Retain copies of Record 7: Veterinary Prescription (or the equivalent information) with your records.



4.6.3 In Quebec, you must have a prescription for all animal health products used on your farm.

In addition, you are encouraged to:

4.6.4 Consult your veterinarian before using any over-the-counter animal health product in an extra-label manner.

4.6.5 In Ontario – successfully complete the Livestock Medicines Course for goats.

4.7 Administering Animal Health Products

Although it is extremely rare for needles to break when injecting goats, you must use injection practices that minimize this risk. In the rare case that it occurs, you must also take adequate steps to prevent that needle from entering the food system.

Food Safety Concern:

Broken needles in meat are a significant hazard to consumers.

Requirements:



4.7.1 Ensure your goat is properly restrained during needling. There is a greater chance of breaking needles if animals are able to move excessively.



4.7.2 Do not use bent or dull needles. Do not straighten bent needles, as they are more likely to break.



4.7.3 Discard all used needles into a plastic, puncture-resistant container referred to as a sharps container.



4.7.4 If a needle breaks off in an animal, make every attempt to retrieve the broken fragment. Contact your veterinarian if necessary. If you cannot retrieve the needle, you must record the incident, including the animal's ID and the injection site in the comments section on Record 2: Animal Health Product Treatment (dairy producers use Record 3).

4.7.5 Only sell animals with broken needles to known buyers through private sales. Never sell these animals through public auctions. When selling an animal with a broken needle, make sure the animal is uniquely identified and ensure that the buyer is made aware of the hazard. Complete Record 1: Declaration of Shipping or Receiving Status to ensure the buyer has the relevant information in writing.

4.7.6 Whenever possible, use animal health products that can be administered by alternative routes, such as oral or pour-on applications.

4.7.7 If label instructions allow, use subcutaneous injections to decrease the chances of breaking a needle in the muscle.



4.7.8 Use the proper needle length and gauge. Check with your veterinarian for the correct sizes to use for various types of animal health products, injection routes and weight or age of the goat. Single-use needles are recommended.

In addition, you are encouraged to:

4.7.9 Consider on-farm euthanasia or slaughter of the animal when needle fragments are irretrievable.

4.7.10 Inspect all treatment equipment prior to administering animal health products. Equipment must be visibly clean to avoid accidental contamination of meat or milk with animal health product residues.

4.7.11 If treatment equipment is not visibly clean prior to use, thoroughly clean and sanitize before administering animal health products.

Note: Refer to Section 10.2 of this manual for handling problems related to shipping animals.

4.8 Disposal of Animal Health Products and Supplies

Food Safety Concerns:

Goats may inadvertently consume animal health products that are not properly disposed of. This could result in unknown withdrawal periods and/or animals shipped to slaughter containing animal health product residues.

Goats may become injured by sharps that have been improperly disposed of. This may lead to unknown broken needles or other physical hazards in the meat.

Requirements:

4.8.1 Properly dispose of used, outdated or contaminated animal health products according to the directions on the product label or package insert. Abide by municipal by-laws when disposing of unwanted and/or outdated animal health products, and sharps containers holding used needles and record on Record 5: Animal Health Product Inventory.

4.8.2 If sharps containers, used needles, or used, outdated or contaminated animal health products are found where they could contaminate feed, bedding, water or animals, properly dispose of the item and record incident on Record 4: Problems and Corrective Actions.

Note: Refer to GPP 8.1.7 for handling problems related to hazardous materials or chemical contaminants.

4.9 Animal Health Product Treatment Records

Maintaining records of animal health product use is essential to ensure that:

- withdrawal periods are met;
- animal health products are used properly; and
- treated animals are identified.

Maintaining records may help decrease the overall use of animal health products by increasing your awareness of the amounts used on your farm.

Food Safety Concern:

Inadequately maintained animal health product treatment records may result in product residues in the meat or milk.

Note: For information on on-farm mixing of medications in feed and water, see Sections 5.4 and 6.2, respectively.

Requirements:



4.9.1 Keep records for all animal health products that state a withdrawal period on the product label or package insert. If you use a product in an extra-label or off-label manner, keep the instructions given to you by your veterinarian and record the information on Record 2: Animal Health Product Treatment (dairy producers use Record 3). Record all information regarding the treatment including:

- treatment date(s);
- animal health product used;
- dosage; and
- animal or pen identification.

Animal health product treatment records **must be** kept for **all** animals including breeding stock, slaughter kids, feeder goats, orphan kids and cull goats.

Note: For more information on extra-label (off-label) use of animal health products, see Section 4.6.



4.9.2 Keep written copies of prescriptions and instructions from your veterinarian for one year. For a sample of a Veterinary Prescription form, see Record 7.



4.9.3 Use a reliable system for identifying and tracking individual animals or groups (pens) of animals that have been treated with an animal health product (e.g. medicated feed and medicated water) and record on Record 2: Animal Health Product Treatment (dairy producers use Record 3). A reliable system may include:

- eartags;
- livestock markers; or
- pen description and/or identification number.

If you use livestock markers, ensure that the mark remains visible until the withdrawal period has been met. Refresh markings as necessary.



4.9.4 Review Record 2: Animal Health Product Treatment (dairy producers use Record 3) prior to shipping any animals to confirm that the proper withdrawal periods have been met. If animals are being shipped before withdrawal periods have been met, complete Record 1: Declaration of Shipping or Receiving Status and send to buyer.



4.9.5 Check the individual or group (pen) identification numbers with those on Record 2: Animal Health Product Treatment (dairy producers use Record 3) to ensure that all animals being shipped are free of animal health products.

Do not ship animals that have not met animal health product withdrawal periods to slaughter or to unknown buyers at public auctions. If you ship animals before withdrawal periods have been met, complete Record 1: Declaration of Shipping or Receiving Status and send to buyer.

Note: For more information on buying, selling and shipping animals, see Section 2.



4.9.6 Ensure that you have corrective actions in place for your operation if animals are accidentally treated with the wrong animal health product and record incident on Record 4: Problems and Corrective Actions.



4.9.7 If an animal health product is accidentally administered at a different dose, by a different route or for a longer period of time than stated on the instructions, record the incident on Record 4: Problems and Corrective Actions. Identify the incorrectly treated animal(s), withhold if necessary and consult a veterinarian.

Note: Refer to Section 10.2 for handling problems related to shipping animals.

In addition, you are encouraged to:

4.9.8 Ensure withdrawal periods for topical (pour-on) animal health products are met prior to shearing. Although not directly related to food safety, animal health product residues are a risk to shearers and may contaminate lanolin-based products such as hand cream.

4.10 Herd Health and Diseases of Concern to Dairy Producers

Dairy does can carry disease organisms that may be transmitted via the milk to humans. Proper pasteurization of the milk is sufficient to kill pathogenic organisms; however, maintaining a high flock health status reduces the likelihood that these disease organisms will be present in the milk.

Food Safety Concern:

Raw milk can be a medium through which diseases such as brucellosis, listeriosis, Q Fever, tuberculosis and salmonellosis can be transmitted to humans.

Note: For more information on these and other diseases, see Appendix IV: Diseases.

Requirement:

4.10.1 Contact your veterinarian immediately if you suspect that any of the high-risk diseases (i.e. brucellosis, listeriosis, Q Fever, tuberculosis or salmonellosis) are present in your flock.

5. Feed & Bedding

Hazardous materials may contaminate feed and bedding during production, handling and storage. Hazardous materials may be physical, biological or chemical in nature. Foreign materials such as bale twine or wire are examples of physical contaminants. Hazardous chemicals may include, but are not limited to: external parasite solutions and powders, footbath chemicals, insect control chemicals, engine fuels, lubricants, crop insecticides and herbicides, paint, rodent poisons, car batteries and antifreeze.

Moulds are an example of a biological contaminant. Very few biological hazards will reach the consumer due to bedding or feeds being contaminated during handling and storage. However, cats, birds, rodents, dogs and other animals should be excluded from feed storage areas to prevent fecal contamination of the feed by these animals. This will help to prevent the spread of diseases such as toxoplasmosis to goats and humans.

5.1 Purchasing Feed and Bedding

General:

Being aware of possible contaminants on your farm will minimize this risk of feed and bedding materials being contaminated. If you purchase products off-farm, you cannot control all aspects of their production. However, precautions can be taken to help decrease the risk of feed or bedding being contaminated, and to identify the source of any problems.

Food Safety Concerns:

Exposing your goats to contaminated feed or bedding may result in hazardous materials or unknown residues in the meat or milk.

Purchasing feeds with known ingredients from a reputable supplier will help minimize mistakes in feed content.

Medicated Feeds:

A medicated feed is a mixed feed that contains a medicating ingredient. A medicating ingredient is:

- a substance that is intended for use in the prevention or treatment of disease in livestock; or
- a substance other than a feed that is intended to affect the structure or function of the body of the livestock.

Food Safety Concern:

Medicated feed that is improperly handled or stored may contaminate non-medicated feed and be fed to the wrong animals by mistake. Withdrawal dates for animals unintentionally fed medicated feeds would not be known resulting in possible residues in the meat.

Note: See Section 4.2, 4.3, and 4.4 for information on purchasing, receiving and storing animal health products.

Requirements:

5.1.1 Obtain a bill of sale, feed tag or certificate of verification from your feed supplier ensuring that purchased feed does not contain any prohibited animal by-products (Record 8: Prohibited Feed Certification). Feed that is not manufactured specifically for ruminants may contain prohibited animal by-products. Only purchase feed that is labeled in accordance to the Feed and Health of Animals Regulation.



5.1.2 Keep a record of all medicated feeds and medicated feed ingredients that you purchase. Use Record 5: Animal Health Product Inventory to record this information.



5.1.3 Maintain an inventory for all medicated feeds. Record this information in the comments section on Record 5: Animal Health Product Inventory.

5.1.4 When storing medicated feeds, record the bin identification or number on Record 6: Feed Inventory.

5.1.5 Store your medicated and non-medicated feeds in separate locations to prevent contamination of the non-medicated feeds and ingredients.

5.1.6 Clearly identify each feed bin with regards to its contents.

5.1.7 Do not use bedding material such as pressure treated wood chips that may be contaminated with chemicals.

Note: Refer to Section 10.3 of this manual for handling problems related to Purchasing Feed and Bedding.

In addition, you are encouraged to:

5.1.8 Purchase all processed feeds and feed ingredients (including feed for other domestic species) from a reputable supplier who follows good management practices or from companies enrolled in the HACCP based Canadian Feed Safety Program. Dealing with a feed company that monitors production will help minimize mistakes in feed content.

5.1.9 Consult your forage, grain, raw milk and colostrums, bedding and by-product suppliers to ensure that the products you are purchasing are produced and stored in an acceptable manner that ensures they are safe for use with animals.

5.1.10 Inspect all purchased medicated feed for possible contaminants before accepting delivery. Do not accept or use feeds that appear to be different from previous batches of the same feed (e.g. contains pellets that were not in the last batch of the same feed).

5.2 Receiving Feed and Bedding

Food Safety Concern:

Receiving the wrong feed or bedding may expose your goats to contamination or unintended animal health products, which may result in hazardous materials or unknown residues in the meat or milk.

Requirements:

5.2.1 When handling or transporting feed and bedding, use equipment and vehicles that have been thoroughly cleaned, and properly maintained. This will help to minimize the possibility of contamination from medicated feeds, fertilizers, treated grains, manure, pesticides, fuel, brake fluid, battery contents, etc.

5.2.2 Refuse to accept any bulk or bagged feed that does not have a proper label, tag or product description, that is in accordance to the Feed and Health of Animals Regulation. This is especially important for medicated feeds.

5.2.3 When receiving feed, bedding and other supplies, ensure what you received is what you ordered and acknowledge that you did this by initialing the bill of sale.

5.2.4 Ensure that all medicated feeds and medicated feed additives are received and stored in secure locations to avoid accidental consumption by your goats.

5.2.5 Keep records of all feeds and feed ingredients that are used by or could come in contact with your goat operation on Record 6: Feed Inventory.

Note: Refer to Section 10.3 of this manual for handling problems related to Receiving Feed and Bedding.

In addition, you are encouraged to:

5.2.6 If you employ a feed transporter, ensure the company or individual has good management practices in place for proper cleaning of the transport vehicle between loads.

5.2.7 Inspect feed and bedding for possible contaminants before accepting delivery. Do not accept or use materials that show obvious signs of contamination such as mould, or contain foreign material.

5.2.8 It is recommended that a feed sample from each load of feed you purchase is stored in a cool, dark place. If difficulties concerning the feed arise at a later date, the sample can be analyzed to pinpoint the problem.

5.3 Storing Feed and Bedding

Food Safety Concern:

Improper storage may result in contamination of or unintended animal health products in feed or bedding, which may result in hazardous materials or unknown residues in the meat or milk.

Requirements:

5.3.1 Store purchased feeds, whole grains, by-product feeds, forages, straws, shavings, supplements and milk replacers in a secure location and feed in restricted areas, ensuring that goats do not have access to non-ruminant feed.

5.3.2 Do not store hazardous materials in or near feed or bedding storage areas.

5.3.3 Properly maintain and clean farm equipment that may come in contact with feeds or be stored in the feed storage areas to prevent contamination of the feeds.

5.3.4 All non-ruminant feed storage areas are to be clearly labeled and separate from ruminant feed storage. This includes feeds for dogs and other species.

5.3.5 Store all non-ruminant feed in a secure location(s). Records in relation to non-ruminant feeds are to be maintained for two years.

In addition, you are encouraged to:

5.3.6 Use storage practices that minimize the exposure of feed and bedding to hazardous materials.

5.3.7 Design and maintain feed storage areas to minimize fecal contamination by birds, rodents, cats, dogs or other animals.

5.3.8 Ensure feed storage areas are kept clean and free of excess moisture to minimize growth of mold.

5.4 On-Farm Mixing of Medicated Feed

When mixing medications, including medicated pre-mixes, into the feed on-farm, you are responsible for ensuring that the products are added at the correct concentrations.

Food Safety Concern:

If mixing instructions are not strictly followed, the medication concentration may be ineffective or result in unpredictable withdrawal periods.

Requirements:

5.4.1 Check the expiry dates on all medicated ingredients. Discard any product once the expiry date has passed and record on Record 5: Animal Health Product Inventory. Follow the manufacturer's instructions and municipal by-laws when discarding any medications.



5.4.2 Carefully read the directions and accurately measure the ingredients when mixing medications into feed. Adhere to the dosage levels, treatment period, and type of product and target animals treated as advised by your veterinarian or described on the product label or package insert. Record use of animal health products on Record 2: Animal Health Product Treatment (dairy producers use Record 3).



5.4.3 If any medicated rations are mixed on-farm, you must record the date when each batch of feed is mixed and the sequence in which the batches are mixed for both medicated and non-medicated feeds. Record this information on Record 9: Medicated Feed and Water Mixing.



5.4.4 Post detailed mixing instructions for each type of feed that is mixed in an accessible location. The instructions must describe how to set-up the equipment for mixing in premixes, a listing of the amounts of each ingredient to be added to each ration, and mixing times. Animal health products must be distributed evenly within the batch of feed.

5.4.5 Clean up spills of any medicated product immediately to avoid possibly contaminating non-medicated feed, and the accidental consumption by animals.



5.4.6 Remove residues of medicated feed from mixers and handling equipment before mixing non-medicated feed or feed containing a different type of medication. Post instructions for cleaning the feed mixing equipment and water lines in a location accessible to all workers. Visually inspect mixers and equipment to ensure cleanliness.

5.4.7 Ensure that all medicated feeds mixed on-farm are stored in secure location(s) to avoid accidental consumption by your goats or contamination of non-medicated feeds.



5.4.8 Clearly identify the contents of each feed bin and record the storage location of the feed on Record 9: Medicated Feed and Water Mixing.



5.4.9 Have corrective actions in place in case a batch of medicated feed is mixed incorrectly, a non-medicated feed is mistakenly contaminated with a medication or if non-ruminant feed contaminates feed for ruminants. Take action immediately to correct the problem if possible. Do not distribute the feed until you are certain of the concentration and the proper withdrawal date. Record the error and any corrective actions that you take on Record 4: Problems and Corrective Actions. Consult with a veterinarian if you are uncertain about how to handle the situation.



5.4.10 If you correct a batch of feed, note the corrections that were made on the comments area of Record 9: Medicated Feed and Water Mixing.



5.4.11 Clean mixers and feed handling equipment when changing from medicated feed to non-medicated feed, and from non-ruminant to ruminant feed. The step of cleaning the mixer must be recorded on Record 9: Medicated Feed and Water Mixing on the row below the last batch that was recorded.



5.4.12 At least once per month, the person mixing and weighing the medicated feed is to calibrate the mixing and weighing equipment and record the date in the comment section of Record 9: Medicated Feed and Water Mixing. Calibrate according to manufacturer's instructions. Post calibration instructions in a location that is accessible to all workers preparing medicated feed.



5.4.13 Establish and maintain flushing and/or sequencing procedures that remove medicated and non-ruminant feed residues from feed bins, mixers and handling equipment to avoid contamination of feed with unwanted residues.



5.4.14 If feed is placed in a wrong bin or in a bin that was not properly cleaned and there is a risk of contamination of the goat feed with unintended animal health products or non-ruminant feed, hold the feed and consult with a feed specialist or veterinarian to determine the corrective action. Record the incident on Record 4: Problems and Corrective Actions.



5.4.15 Establish and follow mixing criteria that includes batch mixing time that is specific for each mixer and feed batch. Consult with a feed specialist if necessary. Record batch mixing times on Record 9: Medicated Feed and Water Mixing.

Note: Refer to Section 10.3 of this manual for dealing with problems related to mixing medicated feed.

If you mix your feed on farm and it contains animal derived ingredients (e.g. tallow, Vitamin E), please contact CIFA Feed Division for record requirements.

If you mix medicated feed on farm, you may be required to conduct mixer performance testing. For further information, you may contact CFIA Feed Division.

5.5 Feeding, Watering and Bedding Animals

Food Safety Concern:

Medicated feed must be administered to the correct animals at the correct levels to ensure that product withdrawal periods are met.

Note: See Section 4 for more information on animal health product use.

Requirements:

5.5.1 Maintain all equipment used to hand-feed in good working order.

5.5.2 For short-term treatment of animals using medicated feed, record the treatment dates and other relevant information on Record 2: Animal Health Product Treatment (dairy producers use Record 3).

5.5.3 For long-term feeding of medicated rations, note the required information in the first line of each new sheet. Use Record 2: Animal Health Product Treatment (dairy producers use Record 3) to record this information.



5.5.4 Regularly maintain equipment used to distribute medicated feed and water to ensure that medicated products are evenly distributed to the target animals.



5.5.5 Remove traces of medicated feed from feeders, feed handling equipment and water lines to avoid contamination of non-medicated feed or water. Post instructions for cleaning the equipment and water lines in a location that is accessible to all workers.



5.5.6 Have corrective actions in place in case changes or mistakes occur when feeding medicated feed or water. Record as much information as you can about the incident on Record 4: Problems and Corrective Actions. Record how long the problem occurred, the number of animals and the identification of all the animals affected. If any of the affected animals were due to be shipped, be sure to comply with the withdrawal period for the medication. Consult with your veterinarian if the withdrawal period is not known.

5.5.7 If you are feeding recycled food products, please contact the Animal Feed Division of the CFIA for information and requirements.

5.6 Pastures

Food Safety Concern:

Pastured goats may come into contact with chemical residues from pesticide use or waste materials, or with biological hazards from wildlife or deadstock.

Requirements:

5.6.1 Follow the manufacturer's instructions for application methods, amounts and grazing restrictions when applying pesticides to grazing land. Also, follow the instructions for the storage and the disposal of any unused product and containers. If you have doubts regarding the proper use and disposal of these materials, consult with the chemical company or your local agrologist.

5.6.2 Maintain a record of all pesticides applied to grazing land. Use only pesticides approved for use on pasture. Do not put animals back on pasture to graze before the stipulated withdrawal date (Record 10: Pesticide Use in Grazing Areas).

5.6.3 Make sure your pastures are free from old garbage sites that may contain chemical containers, batteries and other contaminants or hazardous materials. Prevent access of the goats to these areas if all potentially hazardous materials cannot be removed. Dispose of all herbicide and pesticide containers according to regulatory requirements and/or label instructions.

5.6.4 Dispose of deadstock in accordance with provincial legislation.

Note: Refer to GPP 8.1.7 for handling problems related to pasturing animals.

In addition, you are encouraged to:

5.6.5 Collaborate with your neighbours to ensure that if pesticides are being sprayed in adjacent fields that they are not adversely affecting your goats.

5.6.6 Remove all dead animals (domestic or wild) from your pastures immediately.

6. Water

6.1 Water Quality

Food Safety Concern:

Water contaminated by hazardous materials that may be absorbed into animal tissue resulting in a food safety hazard.

Requirements:

6.1.1 Carry out annual water analyses to test for bacterial contamination of potable water sources (or more frequently if necessary) for parlour and milkhhouse use. This is important even with municipal water, as broken water lines can affect water quality. The general guidelines for water testing are:

- test all existing and new wells before use;
- test an existing well if it has been repaired or if it has not been in regular use;
- if the first test indicates that disinfection is required, treat water according to recommendations; and
- re-sample the water once the disinfecting is complete. Retest the water 1-3 weeks after the first test to confirm acceptable results.

6.1.2 If you suspect chemical contamination of a water source, have the water tested.

Note: See Appendix II: Canadian Water Quality Guidelines for Livestock.

6.1.3 If your goats are exposed to contaminants in the water, record the incident on Record 4: Problems and Corrective Actions.

In addition, you are encouraged to:

6.1.4 Provide your goats with water that is suitable for livestock production. Do not allow livestock to use potentially contaminated water sources such as septic tank pump-outs.

6.1.5 Secure any water-holding tanks on your farm to prevent access by wildlife, rodents and vermin. Droppings and/or decaying bodies of drowned animals will contaminate water sources.

6.1.6 Check and clean watering bowls regularly to prevent the build-up of algae. If you use a dugout or pond as a water source, pay attention to the growth of blue-green algae as it is potentially toxic to animals and humans.

6.1.7 Have a back-up plan for supplying water to your flock in the event your water source becomes contaminated or unusable due to floods, droughts, power outages and other disasters.

6.2 Medicating Water

Water is sometimes further handled to protect livestock from potential contaminants, to promote health, or to prevent disease.

- Water treatment involves the addition of substances (such as chlorine) to kill potentially harmful bacteria and render water potable; and/or
- Water processing involves the addition of non-medicinal ingredients (such as probiotics) in order to promote health or growth, or animal health products (such as antibiotics) to prevent or combat specific diseases.

Food Safety Concern:

Improper treatment, processing or medication of water may result in unknown residues in meat or milk.

Requirements:



6.2.1 Check the expiry dates on all medicated ingredients. Discard any product once the expiry date has passed and record on Record 5: Animal Health Product Inventory. Follow the manufacturer's instructions and municipal by-laws when discarding any medications.



6.2.2 Carefully read the directions and accurately measure the ingredients when mixing medications into water. Adhere to the dosage levels, treatment period, and type of product and target animals treated as advised by your veterinarian or described on the product label or package insert. Record use of animal health products on Record 2: Animal Health Product Treatment (dairy producers use Record 3).



6.2.3 When medicated water is mixed on farm, you must also record it on Record 9: Medicated Feed and Water Mixing, and retain records for one year.



6.2.4 Maintain records when mixing medications into the water. Record the date(s) treated, product name, pen number or animal Id and the withdrawal period on Record 2: Record 2: Animal Health Product Treatment (dairy producers use Record 3).



6.2.5 Post detailed mixing instructions for medicating water in an accessible location. The instructions must describe how to set-up the equipment for mixing in premixes and a listing of the amounts of each ingredient to be added. Medications must be evenly distributed in the water batch.

6.2.6 Clean up spills of any medicated product immediately to avoid the accidental consumption by animals.

6.2.7 Flush water lines thoroughly after ensuring that medication has been fully distributed to goats (i.e. by monitoring that all of the stock solution has gone through).



6.2.8 Have corrective actions in place in case a batch of medicated water is mixed incorrectly or if non-medicated water is mistakenly contaminated with a medication. Take action immediately to correct the problem if possible. Do not distribute the water until you are certain of the concentration and the proper withdrawal date. Record the error and any corrective actions that you take on Record 4: Problems and Corrective Actions. Consult with a veterinarian if you are uncertain about how to handle the situation.



6.2.9 If you correct a batch of water, note the corrections that were made on the comments area of Record 9: Medicated Feed and Water Mixing.



6.2.10 Clean water systems by flushing lines after treatment with medicated water and record on Record 9: Medicated Feed and Water Mixing. Record on the row below the last batch that was recorded.



6.2.11 At least monthly, the person mixing the medicated water must calibrate the mixing equipment and record the calibration in the comment section of Record 9: Medicated Feed and Water Mixing. Post calibration instructions in a location that is accessible to all workers preparing to medicate water.

6.3 Water Storage

Food Safety Concern:

Improper storage of water may result in contamination or unknown residues in meat or milk.

Requirements:

6.3.1 Ensure that potable water is stored in a manner that prevents contamination by pathogenic bacteria and/or parasites.

6.3.2 Ensure that all medicated water is stored in labeled, secure location(s) to avoid accidental consumption by your goats or contamination of non-medicated water sources.

6.4 Water Quality for Dairy Operations

Milk safety can be adversely affected by the quality of water used to clean milking equipment and the milkhouse.

Food Safety Concern:

If the water used to clean milking equipment or the milkhouse contains biological or chemical contaminants, milk safety and quality may suffer.

Requirements:

6.4.1 Only use potable water or water that was analyzed by a reputable lab as fit for human consumption for cleaning the milkhouse and milking parlour.

6.4.2 Water used for cleaning must be tested yearly for total bacteria and fecal coliforms. Have a copy of the test results available for the auditor/validator.

6.4.3 If water contamination problems are found, consult a water supply and treatment specialist for the best course of action and record incident on Record 4: Problems and Corrective Actions.

6.4.4 Test the water for dairy operations:

- on an annual basis;
- when a new water source is used; and/or
- when changes or events occur (e.g. flood) to the existing water supply.

Test according to provincial guidelines for bacteria in drinking water and Appendix II: Canadian Water Quality Guidelines for Livestock. If using municipal water, the municipality may be able to supply the results.

6.4.5 If water does not meet required bacteria levels, then consult with the local authority responsible for water safety (e.g. Department of Health).

6.4.6 If treating water, verify the water treatment chemical concentration at least yearly, and maintain a record of your activities.

6.4.7 Correct the concentration of the water if test results indicate that the concentration of the water treatment chemicals is not correct.

In addition, you are encouraged to:

6.4.8 Follow the instructions provided by the laboratory for collecting water for testing. Water test bottles can be obtained from a local public health unit or laboratory that performs testing.

7. Goat Dairy Management

Provincial governments regulate dairy production in Canada. These regulations set:

- criteria for the design, construction and operation of a dairy operation; and
- quality criteria and safety standards for raw milk production, handling storage and hauling.

In addition, provincial legislation requires that milk meet strict standards for animal health product residues. A regulatory agency and/or the processor may monitor the milk on a regular basis for animal health product residues, bacteria levels, added water and depending on the processor, protein and fat levels.

Food Safety Concerns:

If the provincial regulations for the design, construction and cleaning of the dairy facility are not followed, the milk produced may contain foreign and/or toxic substances.

The quality and safety of the milk may be affected (i.e. contain high levels of bacteria, somatic cells, inhibitors, animal health product residues and added water), if the provincial regulations for milk production, handling, storage and transportation are not adhered to.

Animal health product residues may contaminate the milk if withdrawal times and product use specifications are not followed.

7.1 General

Requirements:

7.1.1 Consult with the Provincial Agriculture and Food Department or Health Department before building or changing the design of a dairy facility to ensure that provincial regulations are met.

7.1.2 If provincial regulations require, ensure your farm is a registered/licensed dairy farm prior to selling raw milk.

7.1.3 According to provincial regulations, maintain a copy of your last farm inspection form with your records.

7.1.4 Ensure you comply with the standards and testing criteria for raw milk, consult with your Provincial Agriculture or Health Department.

7.1.5 If your province has a milk testing program in place, maintain a copy of your last milk test results with your records.

7.1.6 Make certain that the light fixtures have shatterproof covers and are not located directly above the bulk tank or utensil areas.

7.1.7 Producers must comply with all Federal and Provincial Legislation in relation to dairy production.

Note: Please refer to Appendix I: Dairy Facility Design for further information.

7.2 Dairy Equipment

All equipment that comes in contact with the milk must be properly cleaned and maintained in working order, and only used for collecting, cooling, holding or transferring the milk. In addition, the cooling units must have adequate capabilities for maintaining stored milk at the appropriate temperatures.

Food Safety Concerns:

Equipment that is not properly cleaned and maintained can result in chemical, physical or bacterial contamination of the milk.

Equipment that comes in contact with the milk must be constructed of smooth, non-corrodible and non-toxic materials to prevent milk contamination.

If the equipment used to cool and store the milk is not working properly, the quality and safety of the milk will be affected.

Requirements:

7.2.1 Use only proper milking equipment designed for the specific task and suited for dairy goats.

7.2.2 Make certain that milk contact surfaces are made of impervious material such as stainless steel. If plastic or rubber-like materials are used, they should be relatively inert, resistant to scoring, chipping and decomposition.

7.2.3 Ensure that all utensils or materials that come in contact with the milk are non-toxic and easily cleaned. Make sure containers and utensils are free from breaks, corrosion and the joints are free of pits or cracks.

7.2.4 Inspect equipment that can be visually checked, on a daily basis to ensure it is in working order.



7.2.5 At least twice per year, thoroughly check milking equipment settings and make any corrections as needed. If possible, have a qualified technician perform the inspection.

7.2.6 Check that the bulk tank is installed with free space at each side, in front, behind, above and below to allow for cleaning.



7.2.7 Calibrate thermometers on the bulk tank twice per year to ensure they are accurate to at least $\pm 1^{\circ}\text{C}$. Record the date(s) of the calibrations on Record 11: Daily Bulk Tank Temperature and Cleaning.

In addition, you are encouraged to:

7.2.8 In bucket milking operations, milk must be filtered before storage using either inline filters of similar design to pipeline filters or by filtering after collection.

7.2.9 Replace inflations and other rubber and plastic parts regularly according to the manufacturer's guidelines. Replace broken or cracked inflations and short milk tubes immediately.

7.2.10 Ensure milk lines are installed to allow for proper drainage.

7.2.11 Install check valves on detergents and sanitizers to prevent contamination of the water sources.

7.2.12 Ensure hot water heaters or hot water supply systems have sufficient capacity for the manual washing of equipment and/or automatic clean-in-place systems (i.e. milk line).

7.2.13 Store single service articles (liners, towels, filters, plastic bags) in a sanitary manner in their original containers and situated above detergents or other contaminants. Single service articles are not to be reused.

Requirement:

7.2.14 If fluid milk is shipped, the following are required:

- **A hose port to allow milk to be transferred from the bulk tank to the transport vehicle. The port must be in close proximity to the bulk tank outlet and be equipped with a self-closing cover.**
- **A concrete or crushed stone apron directly below the exterior hose port, connected to the main entrance of the facility by a sidewalk, constructed of hard material. The sidewalk must be large enough to keep the hose from the transport vehicle clean.**

In addition, you are encouraged to:

7.2.15 Install a back-up power source for the bulk tank unit in case there is a power failure.

7.3 Dairy Sanitation

Regular cleaning of the parlour and milkhous e will help to prevent dust and other extraneous materials from contaminating the raw milk. Proper cleaning will also help to prevent the growth of bacteria in these facilities.

There are two types of equipment cleaning methods used in dairy facilities: clean in place (CIP) and clean out of place (COP). CIP cleaning or automatic cleaning is used to clean equipment such as the milk lines. This type of cleaning does not require dismantling of the equipment. COP is used to clean milk pails, utensils, bucket milkers and other smaller milking items. Washing by hand in the sink is used to clean these items.

Food Safety Concerns:

Food safety hazards may contaminate the milk if the milkhous e and milking parlour are not properly cleaned.

Physical, biological or chemical hazards may contaminate the milk if the milking equipment is unclean or improperly sanitized.

Chemical residues may occur in the milk if cleaning detergents are improperly used.

Requirements:

7.3.1 Clean the milking parlour and milkhouse after each milking or between milking different species. Cleaning the parlour includes removing manure, feed, straw and other extraneous material, and if necessary, hosing the floor. Cleaning the milkhouse includes sweeping the floor and if necessary, hosing, wiping the counters, cleaning the sinks, and properly storing the milking equipment for drying.

7.3.2 Establish procedures for washing all of the equipment used for milking and milk storage. Consider consulting with service personnel or a dairy specialist when establishing the cleaning program.

7.3.3 Post the instructions for washing equipment in the milkhouse for all employees to use. In the posted instructions, specify the wash water temperature, cleaning time, and sanitizer/detergent concentration. The person completing the equipment cleaning procedures must record this on Record 11: Dairy Bulk Tank Temperature and Cleaning.

7.3.4 Ensure that all employees are properly trained and follow the procedures for washing equipment. Record training on Record 13: Record of Worker Training for Dairy Operations.

7.3.5 Read and follow the label directions and warnings when using detergents.

7.3.6 Properly clean all surfaces that come in contact with the milk. This includes a pre-rinse, alkaline wash and acid wash rinse. The alkaline wash will remove organic soils like fats and proteins. The acid wash will remove mineral soils (e.g. iron or milk stone). Record completion of cleaning procedure on Record 11: Dairy Bulk Tank Temperature and Cleaning.

7.3.7 Apply a sanitizer to the milking equipment immediately before milking, in accordance with manufacturer's instructions.

7.3.8 Clean all of the equipment used for milking immediately after use. Record completion of cleaning procedure on Record 11: Dairy Bulk Tank Temperature and Cleaning.

7.3.9 Store portable milking equipment such as milkers and buckets, so that it will properly drain and dry.

7.3.10 Ensure that non-portable equipment (e.g. receiver jar, pipeline, hoses) is installed in a manner that allows it to drain completely after use.

7.3.11 Replace milk filters according to the manufacturer's instructions.

7.3.12 Clean and sanitize freezers at least once per year, and maintain them in a sanitary condition throughout the year.

7.3.13 Clean and sanitize bulk tanks after every shipment of milk. Record milk shipment and bulk tank cleaning on Record 11: Dairy Bulk Tank Temperature and Cleaning.

7.3.14 Milking equipment is to be inspected before milking and any equipment found to be contaminated is to be cleaned immediately. If after following cleaning procedures, equipment or area is not adequately clean, re-clean the effected areas or pieces of equipment and record findings on Record 4: Problems and Corrective Actions. Review cleaning and storage practices if problem continues.

In addition, you are encouraged to:

7.3.15 Ensure that bulk tanks are used exclusively for the storage of goat milk.

7.3.16 Annually verify that your cleaning procedures are effective (e.g. check for milk stones, clots in the lines) and items are stored properly.

7.3.17 Store all milking equipment and milk handling equipment off the floor.

7.3.18 Clean the walls, ceilings, windowsills and outside of the pipes to remove dust, cobwebs and other materials, as required, or at least once per year.

7.4 Milking

Milking is an important step in controlling the safety and quality of the raw milk. Developing consistent pre-milking and post-milking procedures will help achieve milking efficiency and decrease the likelihood of errors. This will help to ensure the quality and cleanliness of the milk. Employees should be trained and evaluated on a regular basis to ensure consistency of milking procedures.

Food Safety Concerns:

Unsanitary conditions and poor milking techniques may cause high levels of bacteria, somatic cells, inhibitors, foreign particles, added water and/or unacceptable levels of animal health products to be present in the milk.

Animal health product residues may be detected in the milk, if milk from treated does is not kept separate from milk from untreated does and properly disposed of.

Requirements:

7.4.1 Ensure that employees with communicable diseases that may be transmitted to the milk do not work in the facility.

7.4.2 Ensure workers wear clean outer garments while milking and handling milk.

7.4.3 Workers must use waterproof dressings to cover open cuts when milking and handling milk.

7.4.4 Workers should wash and then dry their hands with an individual, disposable towel immediately before milking, and/or performing any milkhouse function. Hand washing should be repeated after returning to milking from an interruption.

7.4.5 Allow only one species of dairy animal into the parlour during each milking session to prevent milk from different species being mixed. Ensure that milk lines are cleaned between milking different species and that there are separate storage areas for different species.

7.4.6 Prevent the milk from being contaminated with dust or other particles by not disturbing hay, bedding or silage for one hour prior to milking and during milking.

7.4.7 Make sure the flanks, sides and belly of the does are free of dirt and manure prior to milking to prevent impurities in the milk.

7.4.8 Ensure the teats and udders are clean prior to milking. If necessary wash soiled udders with a pre-milking udder wash solution and dry with a single-service paper towel. Follow label directions when preparing an udder wash solution and use the recommended wash water temperature.

7.4.9 Clean the teats and udders prior to milking. Ask your provincial dairy inspector or other specialist to demonstrate proper cleaning techniques. Improper washing and especially improper drying can be more harmful than no washing at all. Humans can easily spread bacteria during this process unless care is taken. If a problem occurs due to improper use of teat dip, record on Record 4: Problems and Corrective Actions.

7.4.10 Discard milk collected in strip cups for the diagnosis of mastitis.

7.4.11 Sanitize the teat immediately after milking, with an approved dairy teat dip solution, covering the part of the teat that came in contact with the milking machine. The teat dip (dairy-approved sanitizer and emollient) seals the end of the teat and helps to kill micro-organisms.

7.4.12 Ensure all pre- and post-milking teat disinfectants used on your operation are approved for use in dairies.

7.4.13 Clean the teat dip cup at the end of every milking. To avoid contaminating the test dip, never pour used dip back into the original container.

7.4.14 Change teat cup liners at the intervals recommended by the manufacturer.

7.4.15 Milk medicated does separately from the rest of the flock.

Note: For more information on handling milk from medicated does, see Section 7.5.

7.4.16 Dispose of any milk that contains blood, chemical residues (i.e. animal health products), coagulation, other foreign particles or substances, or is watery. If contaminated milk is due to the error of an employee, re-clean teats and re-train worker on proper cleaning procedures. Record on Record 4: Problems and Corrective Actions.

7.4.17 Wash and sanitize milking equipment used for handling abnormal milk before using it to handle milk from another animal. Wash your hands after handling this equipment, and the teats, and the udders of does producing abnormal milk.

Note: Refer to Section 10.5 of this manual for handling problems related to milking.

7.5 Handling Milk from Medicated Does

When lactating does are treated with animal health products, residues from these products may be transmitted to the milk, if proper withdrawal times are not observed.

Note: For more information on animal health products, see Section 4.

Food Safety Concern:

Milk may contain animal health product residues if withdrawal periods are not met and treated animals are not identified, milked separately, and their milk properly disposed of.

Requirements:

7.5.1 Maintain records of all animals treated with animal health products that state a withdrawal period on the product label or package insert. Maintain this information on Record 3: Animal Health Product Treatment for Dairy Operations.

7.5.2 Milk from treated animals must be kept separate from milk being used for human consumption.

7.5.3 Milk does treated with an animal health product last or use separate milking equipment. If you have a pipeline system, milk into a bucket or trap pail to prevent animal health product residues from entering the line.

7.5.4 Wash and sanitize milking equipment used to handle milk from treated does before re-using it to collect milk for human consumption. Workers must wash their hands after handling this equipment and handling the teats, and udders of treated does.

7.5.5 Identify all does treated with animal health products and ensure all staff are aware of the identification system.

7.5.6 Post information relating to treated does (i.e. animal identification, date of treatment and withdrawal date) in a place that is accessible to all workers.

7.5.7 Consult with your veterinarian or use testing kits to screen the milk if you are uncertain of the animal health product withdrawal time. Check with your Department of Health or Agriculture for appropriate screening tests.

7.5.8 Ask for information on past animal health product treatments for any new milking does that you purchase. If the seller is unable to supply a signed shipping record (Record 1: Declaration of Shipping or Receiving Status) or similar information, do not re-sell the animal(s) for 28 days. Consider the milk from these does unfit for human consumption for at least 28 days after their purchase date.

Note: For more information on buying, selling and shipping animals, see Section 2.

7.5.9 Have an action plan in place in the event that you know or suspect that the milk may contain a contaminant (e.g. animal health product).

7.5.10 Take action immediately if you know or suspect that the milk may be contaminated by:

- segregating the milk from uncontaminated milk and label it as tainted;
- holding the milk until you are sure the milk is free of animal health product residues or other contaminants;
- calling your Department of Health or Agriculture; and/or
- record incident on Record 4: Problems and Corrective Actions.

7.5.11 Contact the processor immediately if you suspect or know that contaminated milk has been accidentally transported.

7.5.12 Dispose of milk that is not fit for human consumption in a manner that does not contaminate viable milk, feed, animals or the environment. Record on Record 4: Problems and Corrective Actions.

Note: Refer to Section 10.5 of this manual for dealing with problems related to handling milk from medicated does.

In addition, you are encouraged to:

7.5.13 Whenever possible, treated does should be dried off and removed from the milking flock as soon as possible.

7.5.14 Consult with your veterinarian before feeding contaminated milk to kids. Feeding milk with animal health product residues to kids designated for slaughter may cause residues in the meat.

7.6 Cooling, Storing and Loading Raw Milk

Proper procedures and equipment are required for cooling milk to ensure the quality and safety of the final products.

Milk that is not cooled, stored or loaded properly will spoil.



7.6.1 Ensure that equipment used to cool fluid milk can meet the following:

- The first milk placed in the bulk tank must be cooled to 10°C or less within one hour and between 1°C and 4°C within two hours after milking.
- When milk from subsequent milkings is added to the bulk tank, the blend temperature must not rise above 10°C, and must be cooled to between 1°C and 4°C within one hour after milking.

Food Safety Concern:

Requirements:



7.6.2 Monitor after each milking that the bulk tank is cooling milk according to the criteria in 7.6.1. Have detailed written instructions describing your method of verifying cooling rates for your particular bulk tank. Record the temperature of the milk at least twice daily on Record 11: Bulk Tank Temperature and Cleaning.



7.6.3 Make certain the fluid milk stored in a bulk tank is maintained between 1°C and 4°C within two hours after any new milk has been added.



7.6.4 Have an action plan in place (e.g. contacting the processor) in the event that the bulk tank temperature is ever found to be above 4°C and no new milk had been added within the last 4 hours. Record on Record 4: Problems and Corrective Actions.

7.6.5 Keep bulk tanks clean and sanitized.



7.6.6 Unless stated otherwise in provincial regulations, fluid milk should be transported to processing plant at least once every seven days, and record on Record 11: Bulk Tank Temperature and Cleaning. If fluid milk is not picked up at least every seven days, contact processing plant to pick-up milk as soon as possible. Check the bulk tank temperature to ensure that milk has been maintained below 4°C, and record incident on Record 4: Problems and Corrective Actions.



7.6.7 If a refrigeration unit is unable to cool milk as per 7.6.1 or to maintain the milk at less than 4°C, contact a refrigeration repair person to correct the problem immediately. Record the incident on Record 4: Problems and Corrective Actions.

7.6.8 Ensure the milk is loaded for transport in a sanitary fashion.

8. Farm Chemicals

8.1 General

Potential sources of contamination include:

- pesticides used on grazing lands;
- exposure of animal housing and grazing areas, or feed/water supplies to farm chemicals (e.g. oil, hydraulic fluid); or
- the use of unapproved livestock markers.

Goats may be exposed to various types of chemical contaminants in their environment. These contaminants may be absorbed into the tissue resulting in food safety hazards for consumers.

Food Safety Concern:

Requirement:

8.1.1 Only purchase and receive farm chemicals that are licensed for use in Canada and are from a reputable dealer.

In addition, you are encouraged to:

8.1.2 Producers in Ontario that are purchasing and/or using pesticides have to be licensed. Licensing requires the successful completion of the Grower Pesticide Safety Course. For producers in other provinces, ensure that you follow any applicable regulations.

8.1.3 Ensure that all equipment to be received is clean and in good working order.

8.1.4 When handling or transporting farm chemicals, use equipment and vehicles that have been thoroughly cleaned, and properly maintained. This will help to minimize the possibility of contamination of animals or feed by farm chemicals.

Requirement:

8.1.5 Store all hazardous products and chemicals in a physically separate location from feed, water supplies and areas where your goat are penned or housed. Hazardous chemicals include, but are not limited to: external parasite solutions and powders, foot bath chemicals, insect control chemicals, engine fuels, lubricants, crop insecticides and herbicides, paint, rodent poisons, car batteries and antifreeze.

In addition, you are encouraged to:

8.1.6 Store machinery so that chemicals such as fuel, oil or hydraulic fluid, are prevented from contaminating the animals or animal housing.

Requirements:

8.1.7 If your goats are exposed to chemical contaminants, hazardous materials such as pesticides, excessive amounts of animal health products or prohibited animal material such as dog food, isolate and identify the animal(s). Consult your veterinarian for the appropriate action to take to protect public safety and treat the affected animals. Record the incident on Record 4: Problems and Corrective Actions.

8.1.8 Agricultural and industrial chemicals are to be disposed of according to provincial guidelines. In the absence of provincial guidelines, producers are to take chemicals to a designated hazardous waste facility for disposal. Empty containers are to be rinsed three times and disposed of in the same manner as the chemicals themselves.

8.2 Dairy Chemical Use and Storage

Food Safety Concern:

Improper storage and/or use of chemical agents can contaminate the raw milk with toxic residues.

Requirements:

8.2.1 Ensure that all detergents, sanitizers, lubricants, pesticides and other pest control products used in the dairy comply with the requirements prescribed by the Canadian Food Inspection Agency and the Pest Control Act, and any applicable provincial legislation. Check with your regulatory agency in your province for advice.

8.2.2 Read and follow label instruction when using detergents and sanitizers.

8.2.3 Store all cleaning materials, detergents and sanitizers used to produce or handle milk in the milkhouse in a location, and manner that will not contaminate the milk.

8.2.4 Store all sanitizers and detergents in containers with label instructions.

8.2.5 Do not store pesticides or other toxic products in the milkhouse except for those that are directly related to milkhouse operations.

9. Training Personnel

9.1 Training Full-time, Part-time and Seasonal Workers (including Family Members)

Maintaining an effective communication system will help ensure all workers (full-time, part-time and seasonal workers including family members) are aware of changes in management areas important for food safety (i.e. animals receiving medication, moving animals between pens, changes in the location of medicated feed).

Providing proper training will help ensure that all workers understand and are aware of the good production practices used on your farm to ensure food safety (e.g. the types and purpose of the records used, administering animal health products, checking records before shipping animals).

Food Safety Concern:

Food safety risks may be introduced if the workers are not properly trained and don't understand the importance of using good production practices or aren't aware of changes in management areas important for food safety.

Requirements:

9.1.1 Direct supervision is required for all employees for all “Must Do” production practices outlined in this manual until all employees are fully trained and have reviewed the relevant material in the manual. Employee training will be updated on an ongoing basis.

9.1.2 Maintain a record of training on Record 12: Worker Training (Record 13 for dairy producers), for each person working on your farm including family members.

9.1.3 On Record 12: Worker Training (Record 13 for dairy producers) note the areas that each worker is trained in and the dates the training occurs. Training is only required for tasks that each worker will be expected to perform. For example, if a particular worker is not required to mix medicated feed, he/she does not need to be trained or read the manual sections regarding feed mixing.



9.1.4 The farm manager/supervisor is to review records and procedures with staff, including observation of employees at work at least yearly. This will ensure that the appropriate records are being maintained to be signed and dated upon review and new record sheets started. Observations of the farm manager/supervisor are to be recorded on Record 12: Worker Training (Record 13 for dairy producers).

9.1.5 Ensure all workers are aware of the location of relevant on-farm food safety records.

9.1.6 Establish a communication system to ensure that all workers are aware of changes in important management areas such as the location of medicated animals, medicated feed etc. This may be done using a morning information session or a white board in barn.

9.2 Training Casual Workers

Casual workers are individuals who work on the farm infrequently and for only a few days at a time (e.g. may fill in when the owners are away).

Food Safety Concern:

Even casual workers who are familiar with goat production are probably not aware of important practices particular to your farm for ensuring food safety such as your record keeping system or method for identifying animals treated with animal health products.

Requirements:

9.2.1 Update casual workers every time they are employed regarding current management practices that may affect food safety. For example, identify any animals that have not met animal health product withdrawal periods or pens of animals that are receiving medicated rations.

9.2.2 Employers must supervise casual workers when they perform duties outlined in this program as “Must Do” such as administering animal health products, shipping animals, mixing medicated feed or water etc.



9.2.3 Maintain a record of the dates when casual employees work on your farm. Use Record 12: Worker Training (Record 13 for dairy producers) to record this information.

10. Handling Problems

Problems and errors will inevitably occur, and the GOFFS does not expect producers to be perfect. However, the program does require that problems be appropriately handled and documented in order to minimize the risk being passed on to the consumer, and reduce the likelihood of the error occurring again.

This section reviews some common problems that may occur, and describes how they should be handled. In general, the recipe for dealing with problems involves the following steps:

- Isolate – the affected animal, feed, equipment or milk;
- Assess – the extent of the problem;
- Notify – those down the food supply chain of food safety risks that may have left the farm;
- Retrain – the personnel involved in order to reduce the likelihood of the problem occurring again; and
- Document – both the problem and how it was handled, and the retraining.

Problems Related to Animals and Animal Management (Section 2)

Problem:

1. You have received animals without obtaining a Record 1: Declaration of Shipping or Receiving Status (or equivalent information) from the seller.

Therefore, it is possible that the animals contain residues from prior animal health treatments. Shipping the animal for slaughter (or its milk for consumption) risks passing these residues on to the consumer.

Actions:

- Isolate the animal(s) from the rest of the herd;
- Assess the animal(s). Get veterinary advice where warranted;
- Contact the seller and ask him/her to provide a signed, completed Record 1: Declaration of Shipping or Receiving Status;
- If no information on the status of the animal(s) is available, isolate them for 28 days. Contact your veterinarian for advice before shipping the animal(s) to slaughter, shipping their milk, or mixing them with the rest of the herd;
- Retrain the personnel involved in purchasing and receiving animals on the importance of obtaining a Record 1: Declaration of Shipping or Receiving Status with all incoming animals. Document the retraining on Record 12: Worker Training (dairy producers use Record 13); and
- Complete Record 4: Problems and Corrective Actions.

Problem: 2. You inadvertently ship animals without an accompanying Record 1: Declaration of Shipping or Receiving Status.

- Actions:**
- Immediately notify buyer of the oversight;
 - Send a Record 1: Declaration of Shipping or Receiving Status;
 - Retrain the personnel involved in animal shipping as to the requirements for an accompanying Record 1: Declaration of Shipping or Receiving Status. Document this retraining on Record 12: Worker Training (dairy producers use Record 13); and
 - Complete Record 4: Problems and Corrective Actions.

Problems Related to Feeds and Bedding (Section 5)

Problem: 3. You inadvertently receive the wrong feed into storage, mix ruminant and non-ruminant feedstuffs, mix medicated and non-medicated feeds, or feed medicated feed to the wrong animals.

- Actions:**
- Immediately isolate the affected feed(s);
 - Assess whether or not the affected feed has been fed to goats. If yes, contact your veterinarian;
 - If the feed is purchased and incorrectly labeled or not labeled, contact your feed supplier to remind them of your need for properly-labeled feed;
 - If the feed was improperly stored, fed or mixed on-farm, determine the cause of the error;
 - Retrain the personnel involved in the activity and document the retraining on Record 12: Worker Training (dairy producers use Record 13); and
 - Complete Record 4: Problems and Corrective Actions.

Problems Related to Water Quality (Section 6)

Problem: 4. Your livestock or dairy water becomes contaminated due to improper water treatment, environmental factors or personnel errors in mixing or storage.

As a result, your water may contain unknown quantities of water treatment, processing or medicating substances, or be contaminated by unknown residues.

- Actions:**
- Immediately restrict use of the affected water;
 - Assess the extent to which the affected water has been used or consumed, and the animal(s) or product(s) involved;
 - Assess the food safety risk as a result of the above animal(s) or product(s) being involved. Contact your veterinarian for advice where appropriate;
 - Determine the cause of the error or contamination;
 - Fix the problem that resulted in the error or contamination;

- Re-test the water to ensure that corrective measures have been effective;
- Retrain any personnel involved in the problem and document retraining on Record 12: Worker Training (dairy producers use Record 13); and
- Complete Record 4: Problems and Corrective Actions.

Problems Related to Milking (Section 7)

Problem:

5. Milk from fresh or treated does is inadvertently mixed with the milk intended for human consumption, (e.g. in the bulk tank).

Actions:

- Immediately cease milking in order to prevent to the potential contamination of incoming good milk;
- Isolate the potentially contaminated milk until its status can be confirmed;
- Consult your veterinarian;
- Assess the contamination risk with milk residue tests for the specific animal health products involved;
- If the contamination is confirmed, the milk may not be sold for human consumption, and must be removed from the premises (for other uses) or disposed of in accordance with local regulations;
- Review the process for identifying treated and fresh does and for separating their milk, making corrections or improvements as needed;
- Retrain any personnel involved in kidding, treating animals, and milking and document the retraining on Record 13: Worker Training for Dairy Operations; and
- Complete Record 4: Problems and Corrective Actions.



On-Farm Records

Section B



Record 1: Declaration of Shipping or Receiving Status

Must Do

(Use when shipping animals with a potential food safety hazard or when receiving animals that will not be held for 28 days before reselling)

Owner's Name (person/company): _____

Address: _____

Total Number of Animals Sold/Received: _____

Number of Animals Flagged or Specifically Identified: _____ (specify animal identification number(s) below).

I, _____, the seller of these animals declare to the best of my knowledge that, unless specified, the animals listed below have passed all withdrawal dates for animal health products and are free of any foreign objects such as needles at time of shipping.

Producers are to review each record before signing.

Signature of Seller

Date Animals Shipped/Received

Animal Identification Number(s)	Animal Health Product(s) Please indicate if any animal(s) have been administered animal health products that still require a withdrawal period as of the sale date. If so, include the drug name and the date safe to slaughter.		Physical Residues Please indicate if any animals are known to have physical residues such as needles. Indicate “yes” or “no”. If “yes” describe in detail.	Seller (Initials)
	Product Name	Date Safe to Slaughter (d/m/y)		
Example 2,102	Drug A	31/05/03	No	JD

I, the transporter, _____ agree to give this form to the purchaser of these animals.

I, the transporter and purchaser, _____ have read and understand the form.

Signature of Transporter or Purchaser/Transporter: _____

Date: _____

Signature of Buyer (upon receipt of animals): _____

Date: _____

Auditor's Initials: _____ Audit Date: _____

Record 2: Animal Health Product Treatment

Must Do

Dairy producers please use Record 3: Animal Health Product Treatment for Dairy Operations

Treatment Date (d/m/y)	Animal or Pen Identification	Condition Treated	Product Name	Prescription (P) or Non-prescription (NP)	Dose	Estimated Animal Weight/Number of Animals Treated	* Route (See abbreviation codes below)	Withdrawal (Date safe to ship to slaughter or auction)	Treated by (Initials)
05/02/03	Pen #2	Pneumonia	Drug A	NP	700	170 lbs (8 does)	IM	19/05/03 (d/m/y)	JD

*Route Codes: IW – In the water IF – In the feed TT – Topical treatment (pour-on) OR – Oral
 SQ – Subcutaneous IM – Intramuscular IV – Intravenous

Note: If a needle breaks in an animal during an injection, record the animal's identification number, location of the needle and date it occurred in the comments section.

Comments: _____

Producer's Signature: _____ Date: _____

Producers are to review each record before signing.

Auditor's Initials: _____ Audit Date: _____

Record 3: Animal Health Product Treatment for Dairy Operations

Must Do

Treatment Date (d/m/y)	Animal or Pen Identification	Condition Treated *(for Mastitis Treatments, use the codes below)	Product Name	Prescription (P) or Non-prescription (NP)	Dose	Estimated Animal Weight/Number of Animals Treated	**Route (See abbreviation codes below)	Withdrawal Date		Treated by (Initials)
								Milk (d/m/y)	Meat (d/m/y)	
05/05/2005	ID# 1400	Pneumonia	Product A	NP	200	170 lbs.	SQ	06/05/2005	08/05/2005	JD

* Mastitis Culture Codes: 1 = Staph. aureus (coagulase neg.) 2 = Pasteurella spp. 3 = Coliforms 4 = Environmental Strep. 5 = Other

** Route Codes: IW – In the water IF – In the feed TT – Topical Treatment (pour-on) OR – Oral
SQ – Subcutaneous IM – Intramuscular IV – Intravenous

Note: If a needle breaks in an animal during an injection, record the animal's identification number, location of the needle and date it occurred in the comments section.

Comments: _____

Producer's Signature: _____ Date: _____

Producers are to review each record before signing.

Auditor's Initials: _____ Audit Date: _____

Record 4: Problems and Corrective Actions

Must Do

Date (d/m/y)	What was the problem?	How was the problem controlled? (Your actions, people contacted, etc.)	What can be done to prevent the problem from occurring in the future? (Your Prevention Plan)	Completed by (Initials)
05/06/2003	Medicated feed was accepted without a proper label.	Feed company was contacted and a copy of the label was requested.	Inform feed company that medicated feed will not be accepted without a label. Re-train personnel responsible for receiving feed.	JD

Use this record to note any potential food safety problems (e.g. mistakes when administering animal health products, mixing medicated feed or using pesticides; exposure of goats to chemical contaminants; shipping animals not meeting animal health product withdrawal periods). Mistakes will happen on even the best-run farm. Keeping a record of how you deal with problems clearly shows that due diligence is being practiced on your farm to minimize food safety risks.

Producer's Signature: _____ Date: _____

Producers are to review each record before signing.

Auditor's Initials: _____ Audit Date: _____

Record 5: Animal Health Product Inventory

Must Do

Use this form to record all animal health products, including medicated ingredients for on-farm feed mixing.

Date Received (d/m/y)	Purchased From	Product Name	Amount Purchased	DIN# or Batch Numbers	Expiry Date (d/m/y)	Storage Location	Quantity Remaining at Time of Review and Date of Review (d/m/y)	Disposal Comments and Date (d/m/y)	Initials
02/05/01	Co-op	Drug A	(1) 500 mL bottle	000345	05/03	Fridge in barn office	1/2 bottle (250 mL) on 05/05/03	05/05/03 set aside for vet pick-up	JD

Comments: _____

Producer's Signature: _____ Date: _____
Producers are to review each record before signing.

Auditor's Initials: _____ Audit Date: _____

Record 6: Feed Inventory

Must Do

All feed (including non-ruminant and medicated feed) purchased for, grown on, or mixed for your goat operation must be noted in this record.

Date Received (d/m/y)	Supplier's Name	Product Name	Amount Purchased	DIN# or Batch Numbers	Expiry Date (d/m/y)	Storage Location	Sampled (Y/N)	Quantity Remaining at Time of Review and Date of Review	Disposal Comments and Date	Initials
01/05/03	Company A	Feed A	2 tonnes	000456	05/05/05	Bin #3 (inside main door)	Y	3/4 tonne 05/05/03 (d/m/y)	(d/m/y)	JD
05/01/03	Company A	Dog Food	20 kg	N/A	11/02/05	Secure, labelled bin	N	N/A	N/A	JD

(Note: Record the date(s) of your inventory review in the comments section)

Comments: _____

Producer's Signature: _____ Date: _____

Producers are to review each record before signing.

Auditor's Initials: _____ Audit Date: _____

Record 7: Sample Veterinary Prescription

Must Do

Clinic: _____	
Veterinarian: _____	
Phone: _____	Fax: _____
Address: _____ _____	
Animal ID: _____	
Treatment: _____	
DIN: _____	
Instructions for Use: _____	
Prescription Expiry Date: _____	
Withdrawal Recommendations: _____ _____	
Milk: _____	Withdrawal Date: _____
Meat: _____	Withdrawal Date: _____
Veterinarian's Signature: _____	
Owner or Agent's Signature: _____	
Date: _____	

Record 8: Prohibited Feed Certification

Recommended

It is recommended that your feed supplier provide you with an affidavit on an annual basis, ensuring that no ruminant by-products are present in the feed you purchase.

An affidavit is required annually from each supplier for all protein supplements, including those used in total mixed rations, or added to protein supplement blocks, cubes, pellets, or in dry or liquid form. Not necessary for grain and forage (e.g. hay, grass, straw) that has not been further processed and contains no additives.

I, _____ , hereby certify that
(name of seller)

_____, that is being purchased by:
(name of feed being purchased)

_____, does not contain any prohibited animal by-products.
(name of producer/operation)

Signature of Seller: _____ Date: _____

Record 9: Medicated Feed and Water Mixing

Must Do

If you mix any medicated feed on-farm, note both the medicated and non-medicated rations, and sequence of mixing the rations on this record.
Once medicated feed is mixed, it must be recorded on Record 6: Feed Inventory.

Date Mixed (d/m/y)	Type of Feed/Water	Name of Medication	Medication Withdrawl Period (days)	Amount of Medication Added	Total Amount of Feed/Water Mixed	Batch Number & Mixing Time	Lines Flushed/ Equipment Cleaned	Mixed by (Initials)
05/02/03	Market Kid ration	Drug A	14	0.20 kg/tonne or 200 g/tonne	2 tonnes	Batch 12		JD

Note: Keep a copy of the Veterinary Prescription for each type of medicated feed additive used.

Comments: _____

Date equipment last calibrated (if necessary): _____

Producer's Signature: _____ Date: _____

Producers are to review each record before signing.

Auditor's Initials: _____ Audit Date: _____

Record 10: Pesticide Use In Grazing Areas

Must Do

Date of Initial Application (d/m/y)	Pasture or Field Location	*Pesticide (Brand Name)	Size of Pasture Treated	Application		Withholding Period (from label)	Date Safe to Graze/Harvest/Use (d/m/y)	Treated by (Initials)
				Rate	Method			
20/04/03	North pasture	Brand X	1 acre	20 gallons per acre	Spray	14 d	05/05/03	JD

* Pesticide means any insecticide, herbicide, fungicide or rodenticide.

Comments: _____

Producer's Signature: _____ Date: _____

Producers are to review each record before signing.

Auditor's Initials: _____ Audit Date: _____

Record 11: Daily Bulk Tank Temperature and Cleaning Record

Must Do

Month:		Year:					
Date	AM Temperature (°C)	Cleaning Procedures Completed (pre & post milking)	Initials	PM Temperature (°C)	Cleaning Procedures Completed (pre & post milking)	Initials	Milk Shipment & Bulk Tank Cleaning
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							

Thermometer Calibration Date(s): _____

Producer's Signature: _____

Auditor's Initials: _____

Audit Date: _____

Record 12: Worker Training (Dairy Producers please use Record 13)**Must Do**

For full-time, part-time, seasonal workers and family members who will be performing duties related to “**Must Do**” practices in any of the areas listed below. Use one page for each worker.

Worker's Name:		Start Date:			
Area	Reviewed Applicable Section of Manual (Date: d/m/y)	Shown How to Do Task (Date: d/m/y)	Trainee (Initials)	Date (d/m/y) of Verification by Producer/Trainer	Producer/ Trainer (Initials)
	05/01/10	05/01/10	JH	05/01/10	JD
1.1 Manure Handling and Nutrient Management					
2. Animals and Animal Management					
3. Biosecurity					
4. Animal Health					
5. Feed and Bedding – General Sub-sections 5.1-5.3 and 5.5-5.6					
5.4 On-Farm Mixing of Medicated Feed					
6. Water					
8. Farm Chemicals					
10. Handling Problems					

Comments: _____

Producer's Signature: _____

Date: _____

Producers are to review each record before signing.

Auditor's Initials: _____

Audit Date: _____

Record 13: Record of Worker Training FOR DAIRY OPERATIONS**Must Do**

For full-time, part-time, seasonal workers and family members. Training is only required if workers will be performing duties related to **“Must Do”** practices in any of the areas listed below.

Worker's Name:		Start Date:			
Area	Reviewed Applicable Section of Manual (Date: d/m/y)	Shown How to Do Task (Date: d/m/y)	Trainee (Initials)	Date (d/m/y) of Verification by Producer/Trainer	Producer/Trainer (Initials)
	03/03/2003	03/03/2003	JD	04/03/2003	KD
1.1 Manure Handling & Nutrient Management					
2. Animals & Animal Management					
3. Biosecurity					
4. Animal Health					
5. Feed & Bedding – General: Sub-sections 5.1-5.3 and 5.5-5.6					
5.4 On-Farm Mixing of Medicated Feed					
6. Water					
7.1 Goat Dairy Management - General					
7.2 Dairy Equipment					
7.3 Dairy Sanitation					
7.4 Milking					
7.5 Handling Milk from Medicated Does					
7.6 Cooling, Storing, and Loading Raw Milk					
8. Farm Chemicals					
10. Handling Problems					

Comments: _____

Producer's Signature: _____

Date: _____

Producers are to review each record before signing.

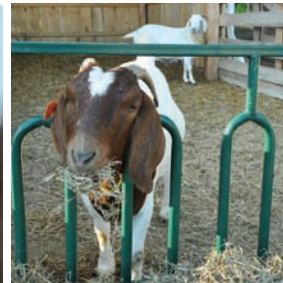
Auditor's Initials: _____

Audit Date: _____



On-Farm Assessment Forms

Section C



Section C – On-Farm Assessment Forms

Section C is to be completed by you prior to the on-farm audit and will be reviewed by the auditor during the farm visit. Section C – On-Farm Assessment Forms is divided into two parts: checklists and written descriptions.

Part 1: Checklists

Part 1 consists of the following checklists:

- Facilities and Premises
- Animals and Animal Management
- Animal Health
- Feed and Bedding
- Water
- Goat Dairy Management
- Farm Chemicals
- Training Personnel

The checklists are designed to help you identify how compliant you are with the Canadian Goat On-Farm Food Safety program's requirements. The numbering on the heading of each checklist corresponds to the numbering of the headings in this manual. The numbers in parenthesis behind each question on the checklist identify which good production practices correspond to each question.

If there are any questions on the checklists that do not apply to your farm, answer with "Not Applicable" (N/A). If you answer "no" to any of the questions, provide a brief explanation at the bottom of the page. Some of the questions on the checklist require more detailed information and/or you will need to go to the relevant question in Part 2 and provide further information. If the checklist indicates that a record is required, you will need to make sure the appropriate or equivalent record has been completed.

Part 2: Written Descriptions

Part 2 involves answering questions pertinent to management practices on your operation in order to help you develop a food safety plan specific to your farm. The number(s) in parenthesis behind each question corresponds to the number of the good production practice addressed by each question.

1. Facilities and Premises	Yes	No	*NA	Details Required Part 2		Record Required	
1.1 Manure Handling and Nutrient Management							
1. Do you follow municipal or provincial regulations regarding nutrient management? (1.1.3)							
2. Do you only purchase commercial fertilizers licensed under the Federal Fertilizer Act? (1.1.4)							
3. Do you dispose of deadstock in accordance with provincial legislation? (1.1.5, 3.1)							

*NA = Not Applicable

2. Animals and Animal Management	Yes	No	*NA	Details Required Part 2	Record Required
2.1 Buying, Receiving and Isolating New Animals 1. Do you maintain clear records of receiving dates, sources and tag or tattoo numbers of all animals purchased? (2.1.1)					Y Shipping/ Receiving Dates and Animal ID
2. Do you keep a new animal for 28 days before reshipping if there is no accompanying information regarding animal health product residues or broken needles? (2.1.2)					
3. Do you inspect all animals upon arrival, note any abnormalities and check paperwork for any animal health products that have not met withdrawal dates? (2.1.3)					Y Record 1
2.2 Animal Identification 1. Do you use a reliable system for identifying and tracking individual animals or groups (pens) of animals that have been treated with an animal health product? (2.2.1, 4.9.3, 7.5.1)				Y Part 2 Questions 1 and 2	
2. Do you use only livestock markers that are clearly labelled for use on livestock? (4.4.5)					Y Record 1
2.4 Selling Animals 1. Do you have corrective actions in place in the event that animal(s) that pose a food safety risk are accidentally sent to slaughter or the public auction? (2.4.2, 2.4.4)				Y Part 2 Question 3	
2. Do you mark an animal in a highly visible manner and only sell it privately to a known buyer if it has not met withdrawal dates or has a broken needle? (2.4.3, 4.7.5)					Y Record 1

*NA = Not Applicable

2. Animals and Animal Management	Yes	No	*NA	Details Required Part 2		Record Required	
2.5 Shipping Animals							
1. Before shipping or selling animals, do you:							
i) Check to ensure that there are no broken needles and that animal health product withdrawal times have been met? (2.4.1, 2.5.1, 4.9.4, 4.9.5)						Y	Record 2 or 3
ii) Complete Record 1 if an animal has not met withdrawal periods before shipping?						Y	Record 1
iii) Check the condition of the animal to ensure they are fit for transport?							
iv) Check the condition of the transport vehicle for cleanliness, proper maintenance and no hazardous chemicals?							

*NA = Not Applicable

4. Animal Health	Yes	No	*NA	Details Required Part 2	Record Required
4.2 Purchasing Animal Health Products 1. Do you initial the bill of sale and keep the product insert for all animal health products used on farm? (4.2.2, 4.3.2, 4.5.2)					
4.4 Storing Animal Health Products 1. Are all animal health products stored in a secure location that is inaccessible to goats? (4.4.1, 4.4.6)					
2. Do you keep an up-to-date inventory list of all animal health products stored on farm? (4.4.1, 4.4.2, 4.4.3)					Y Record 5
3. Do you discard or return any open containers or improperly labelled products and record on Record 5? (4.4.4)					Y Record 5
4. Do you store animal health products according to manufacturer's instructions for light, temperature and humidity? (4.4.7)					
4.5 Using Animal Health Products 1. Do you follow drug dosages, duration of treatment, withdrawal periods and suggested age or weight of the animal exactly as described on the product label or package insert? (4.5.1, 5.4.2, 6.2.2)					
2. Do you check and calibrate all automatic syringes to ensure accuracy of the dosages being given? (4.5.3)					Y Record 2 or 3
4.6 Off- or Extra-label Use of Animal Health Products 1. If you use prescription animal health products in an extra-label (off-label) fashion, do you have a written prescription from your veterinarian? (4.6.1)					Y Veterinary Prescription
2. If you are in Quebec, do you have a prescription for all animal health products used on your farm? (4.6.3)					Y Veterinary Prescription

*NA = Not Applicable

4. Animal Health	Yes	No	*NA	Details Required Part 2		Record Required	
4.7 Administering Animal Health Products							
1. Do you ensure your goats are properly restrained during needling? (4.7.1)				Y	Question 4		
2. Do you replace all needles before they become dull and check the needles before use to ensure they are not bent? (4.7.2)							
3. Do you dispose of used needles in a sharps container? (4.7.3)							
4. What corrective actions would you take in the event that a needle breaks off in an animal? (4.7.4, 4.7.9)				Y	Question 5	Y	Record 2 or 3 Record 4
5. Do you use proper needle length and gauge when injecting animals? (4.7.8)							
4.8 Disposal of Animal Health Products and Supplies							
1. Do you dispose of used, expired or contaminated animal health products according to directions on the product label or package insert and abide by municipal by-laws? (4.8.1, 5.4.1, 6.2.1)						Y	Record 5
4.9 Animal Health Product Treatment Records							
1. Do you keep records for all animal health products that state a withdrawal period and keep a copy of your veterinarian's instructions when using products in an extra-label manner? (4.9.1, 7.5.1)						Y	Record 2 or 3
2. Do you keep written copies of your prescriptions and veterinary instructions for one year? (4.9.2)							
3. Do you ensure that any animals shipped have met animal health product withdrawal dates, or provide notification in writing to the buyer? (4.9.4, 4.9.5)							
4. Do you have corrective actions in place if an animal is accidentally treated with the wrong animal health product, or administered other than as stated on the instructions? (4.9.6, 4.9.7)				Y	Question 6	Y	Record 4

*NA = Not Applicable

4. Animal Health	Yes	No	*NA	Details Required Part 2		Record Required	
4.10 Herd Health and Diseases of Concern to Dairy Producers 1. Do you contact your veterinarian immediately if you suspect that any of the high-risk diseases are present in your flock? (4.10.1)							

*NA = Not Applicable

5. Feed and Bedding	Yes	No	*NA	Details Required Part 2	Record Required
5.1 Purchasing Feed and Bedding 1. Do you have documentation verifying that purchased feed does not contain any prohibited animal by-products? (5.1.1)					
2. Do you keep an inventory record of all medicated feeds and medicated feed ingredients that you purchase? (5.1.2, 5.1.3, 5.2.5)					Y Record 5
3. Are your medicated feeds stored in a secure, separate location from non-medicated feeds and each bin clearly identified and recorded? (5.1.4, 5.1.5, 5.1.6, 5.2.4, 5.4.8)					Y Record 6
4. Do you avoid using bedding material such as pressure treated wood chips that may be contaminated with chemicals? (5.1.7)					
5.2 Receiving Feed and Bedding 1. When handling or transporting feed and bedding, do you use equipment and vehicles that have been thoroughly cleaned and properly maintained? (5.2.1)					
2. Do you refuse to accept any bulk or bagged feed that does not have a proper label, tag or product description, especially medicated feeds, and initial the bill of sale to ensure that what you ordered is what you received? (5.2.2, 5.2.3)					
3. Do you keep records of all feeds and feed ingredients related to your goat operation? (5.2.5)					Y Record 6
5.3 Storing Feed and Bedding 1. Do you clearly label and store non-ruminant and medicated feeds and feed additives in a secure location so that goats cannot access them? (5.2.4, 5.3.1, 5.3.2, 5.3.4)					
2. Do you properly clean and maintain farm equipment that may come into contact with feeds or be stored in the feed storage areas? (5.3.3)					

*NA = Not Applicable

5. Feed and Bedding	Yes	No	*NA	Details Required Part 2	Record Required
3. Do you keep records related to non-ruminant feeds for 2 years? (5.3.5)					
5.4 On-Farm Mixing Of Medicated Feed If you Do Not mix medicated feed on-farm, go on to Checklist 5.5					
1. Do you check the expiry date on all medicated ingredients and follow the manufacturer's instructions and municipal by-laws when discarding medications? (5.4.1)					Y Record 5
2. Do you carefully read the directions and accurately measure the ingredients when mixing medications into the feed or water? (5.4.2)					
3. If medicated rations are mixed on farm, do you record when each batch of feed is mixed and the sequence the batches are mixed for both medicated and non-medicated rations? (5.4.3)					Y Record 6
4. Are mixing instructions posted in a place that is accessible to all persons mixing medicated feed? (5.4.4)				Y Question 7	
5. Do you clean up spills of any medicated product immediately to avoid possibly contaminating non-medicated feed or consumption by your goats? (5.4.5)					
6. Are instructions for calibrating, weighing and feed mixing equipment in a location that is accessible to all workers? (5.4.6, 5.4.12)				Y Question 8	Y Record 6
7. Are instructions for cleaning equipment between medicated and non-medicated feeds posted in an accessible location?				Y Question 9	
8. Do you remove all residues of medicated feed from equipment before mixing non-medicated feed (i.e. flushing and sequencing procedures)? (5.4.11, 5.4.13)				Y Question 9	Y Record 9
9. Is medicated feed stored away from non-medicated feed and animals to avoid accidental consumption or contamination of the non-medicated feed? (5.4.7)					

*NA = Not Applicable

5. Feed and Bedding	Yes	No	*NA	Details Required Part 2		Record Required	
10. Are the contents of each feed bin clearly identified and a record kept in the storage location? (5.4.8)						Y	Record 9
11. Do you have an action plan in place in the event that a batch of medicated feed is mixed incorrectly or a medication is accidentally added to a batch of feed? (5.4.9)				Y	Question 10	Y	Record 4
12. Do you record when corrections are made to a batch of feed that is mixed on farm? (5.4.11)						Y	Record 9
13. Do you regularly clean your mixers and feed handling equipment? (5.4.11)						Y	Record 9
5.5 Feeding, Watering and Bedding Animals							
1. Do you maintain all equipment used to hand-feed in good working order? (5.5.1)							
2. For short-term treatment of animals using medicated feed, do you record treatment dates and other relevant information on Record 2: Animal Health Product Treatment (Dairy producers use Record 3)? (5.5.2)						Y	Record 2 or 3
3. For long-term feeding of medicated rations, do you note the required information in the first line of each new record sheet? (5.5.3)						Y	Record 2 or 3
4. Is equipment used to distribute medicated feed and water regularly maintained to ensure that medications are evenly distributed? (5.5.4)				Y	Question 11		
5. Do you remove traces of medicated feed from feeders, feed handling equipment and water lines to avoid contamination of non-medicated feed or water, and post instructions for cleaning equipment and waterlines in a location that is accessible to all workers? (5.5.5)							
6. Do you have corrective actions in place in case changes or mistakes occur when feeding medicated feed or water? (5.5.6)				Y	Question 12	Y	Record 4

*NA = Not Applicable

5. Feed and Bedding	Yes	No	*NA	Details Required Part 2		Record Required	
5.6 Pastures 1. Do you follow the manufacturer's instructions for application methods, amounts and grazing restrictions when applying pesticides to grazing land, as well as for the disposal of any unused product and containers? (5.6.1)							
2. Do you maintain a record of all pesticides applied to grazing land and ensure that animals are not put back on pasture before the withdrawal date? (5.6.2)						Y	Record 10
3. Do you make sure your pastures are free from old garbage sites that may contain chemical containers, batteries and other contaminants or hazardous materials? (5.6.3)							

*NA = Not Applicable

6. Water	Yes	No	*NA	Details Required Part 2		Record Required	
6.2 Medicating Water If you do not medicate water on farm, go to Section 6.4.							
1. When medicated water is mixed on farm, do you record it on Record 9: Medicated Feed and Water Mixing and retain for one year? (6.2.3)						Y	Record 9
2. Do you maintain animal health product records when mixing medications into the water? (6.2.2, 6.2.4)						Y	Record 2
3. Do you have detailed mixing instructions posted for medicating water that describe how to set-up the equipment for mixing in premises and a listing of the amounts of each ingredient to be added? (6.2.5)							
4. Do you clean up spills of any medicated product immediately to avoid the accidental consumption by animals? (6.2.6)							
5. Do you flush water lines and systems thoroughly after adding a medication and ensure that all the medication has been fully distributed? (6.2.7, 6.2.10)						Y	Record 9
6. Do you have corrective actions in place in case a batch of medicated water is mixed incorrectly or if non-medicated water is mistakenly contaminated with a medication? (6.2.8, 6.2.9)				Y	Question 12	Y	Record 4 Record 8
7. Do you calibrate the mixing equipment at least monthly and record in the comment section of Record 9: Medicated Feed and Water Mixing? (6.2.11)						Y	Record 9

*NA = Not Applicable

6. Water	Yes	No	*NA	Details Required Part 2	Record Required
6.3 Water Storage 1. Do you store potable water in a manner that prevents contamination by pathogenic bacteria or parasites? (6.3.1)					
2. Do you ensure that all medicated water is stored in labelled, secure locations to avoid accidental consumption by goats or contamination of non-medicated water sources? (6.3.2)					
6.4 Water Quality for Dairy Operations 1. Do you use only potable water fit for human consumption for cleaning the milkhhouse and milking parlour? (6.4.1)					Y Copy of water test
2. Do you test water used for cleaning at least yearly for total bacteria and fecal coliforms? (6.4.2, 6.4.4)					Y Record 4
3. If treating water, do you verify the chemical concentration of the water treatment at least yearly and keep a record of this? (6.4.6, 6.4.7)					

*NA = Not Applicable

7. Goat Dairy Management	Yes	No	*NA	Details Required Part 2	Record Required
If you do not have a goat dairy operation, go to Section 8.					
7.1 General					
1. Is your farm licensed/registered as per provincial regulations (if required)? (7.1.1, 7.1.2)					
2. Do you have a copy of your last farm inspection form with your records? (7.1.3)					Y Inspection Form
3. Do you comply with all Federal and Provincial legislation relating to dairy production as well as the standards and testing criteria for raw milk through your Provincial Agriculture or Health Department? (7.1.4, 7.1.7)					
4. Do you have a copy of your last milk test results with your records (if applicable)? (7.1.5)					Y Milk Test Results
7.2 Dairy Equipment					
1. Do you use only proper milking equipment designed for the specific task and suited for dairy goats? (7.2.1)					
2. Are all milk contact surfaces made of impervious material such as stainless steel or materials that are resistant to scoring, chipping and decomposition? (7.2.2)					
3. Are all utensils or materials that come in contact with the milk non-toxic and easily cleaned, and are containers and utensils free from breaks, corrosion and joints free of pits or cracks? (7.2.3)					
4. Do you visually inspect equipment on a daily basis to ensure that they are in working order? (7.2.4)					
5. Do you thoroughly check milking equipment settings and make any corrections as needed at least twice per year? (7.2.5)					
6. Is the bulk tank installed with free space at each side, in front, behind, above and below to allow for cleaning? (7.2.6)					

*NA = Not Applicable

7. Goat Dairy Management	Yes	No	*NA	Details Required Part 2		Record Required	
7. Do you calibrate thermometers on the bulk tank twice per year to ensure they are accurate to at least 1°C? (7.2.7)				Y	Question 14	Y	Record 11
8. If you ship fluid milk, do you have:							
i) a hose port with a self-closing cover to allow milk to be transferred from the bulk tank to the transport vehicle?							
ii) a concrete or crushed stone apron directly below the exterior hose port, connected to the main entrance of the facility by a sidewalk, constructed of hard material? (7.2.14, 7.6.8)							
7.3 Dairy Sanitation							
1. Do you thoroughly clean the milking parlour and milkhouse after each milking and between milking different species? (7.3.1, 7.3.8) Please describe what you do.				Y	Question 15		
2. Do you have posted instructions for washing the equipment in the milkhouse that specify wash water temperature, cleaning time, and sanitizer/detergent concentration? (7.3.2, 7.3.3)				Y	Question 15		
3. Are sanitation activities for the milkhouse recorded? (7.3.3)						Y	Record 11
4. Are all employees/workers properly trained and do they follow the procedures for washing equipment? (7.3.4)						Y	Record 13
5. Are label directions followed when using detergents? (7.3.5)							
6. Do you properly clean all surfaces that come into contact with the milk, using a pre-rinse, alkaline wash, and acid wash rinse and record this activity (can be just a check mark on Record 11: Daily Bulk Temperature and Cleaning Record)? (7.3.6)						Y	Record 11
7. Do you apply a sanitizer to the milking equipment immediately before milking? (7.3.7)							
8. Are portable and non-portable milking equipment such as buckets and hoses stored so that they can properly drain and dry? (7.3.9, 7.3.10)							

*NA = Not Applicable

7. Goat Dairy Management	Yes	No	*NA	Details Required Part 2		Record Required	
9. Do you replace milk filters according to the manufacturer's instructions? (7.3.11)							
10. Do you clean and sanitize freezers at least once per year and maintain them in a sanitary condition throughout the year? (7.3.12)							
11. Do you clean and sanitize bulk tanks after every shipment of milk and record this activity (e.g. check mark on Record 11: Daily Bulk Temperature and Cleaning Record)? (7.3.13, 7.6.5)						Y	Record 11
7.4 Milking							
1. Do you ensure that employees with a communicable disease, that may be transmitted to the milk, do not work in the facility? (7.4.1)							
2. Do workers wear clean outer garments during milking and milk handling? (7.4.2)							
3. Do workers cover open cuts with waterproof dressings when milking and handling milk? (7.4.3)							
4. Do workers wash and dry their hands with paper towels immediately before milking or performing any milkhous function, and repeat handwashing if returning to milking after an interruption? (7.4.4)							
5. a) Do you allow only one species of dairy animal into the parlour during each milking session to prevent milk from different species being mixed and ensure that lines are cleaned between species? (7.4.5)							
b) Do you have separate storage areas for milk from different species? (7.4.5)							
6. Do you prevent the milk from being contaminated with dust or other particles by not disturbing the hay, bedding or silage for one hour prior to milking and during milking? (7.4.6)							

*NA = Not Applicable

7. Goat Dairy Management	Yes	No	*NA	Details Required Part 2	Record Required
7. Do you make sure that the flanks, sides and belly of the does are free of dirt and manure prior to milking? (7.4.7)					
8. Do you clean teats and udders prior to milking using proper washing and drying techniques? (7.4.8, 7.4.9)					
9. Is all milk in strip cups collected for the diagnosis of mastitis discarded? (7.4.10)					
10. Do you sanitize the teat immediately after milking with an approved dairy teat dip? (7.4.11)					
11. Are all pre- and post-milking teat disinfectants used on your operation approved for use in dairies? (7.4.12)					
12. Do you clean the teat dip cup at the end of every milking and change cup liners as recommended by the manufacturer? (7.4.13, 7.4.14)					
13. Do you wash and sanitize all milking equipment used for handling abnormal milk before using it to milk another animal? (7.4.17)					
7.5 Handling Milk from Medicated Does					
1. Do you keep milk from treated animals separate from milk being used for human consumption? (7.5.2)					
2. Do you milk does treated with an animal health product last or use separate milking equipment? (7.4.15, 7.5.3)					
3. Do you wash and sanitize milking equipment used to handle milk from treated does before re-using it to collect milk for human consumption? (7.5.4)					
4. Do you identify all does treated with animal health products and post information relating to treated does (animal ID, date of treatment and withdrawal date) in a place that is accessible to all workers? (7.5.5, 7.5.6)				Y Question 16	Y Record 3

*NA = Not Applicable

7. Goat Dairy Management	Yes	No	*NA	Details Required Part 2	Record Required
5. Do you consult with your veterinarian or use testing kits to screen the milk if you are uncertain of an animal health product withdrawal time? (7.5.7)					
6. Do you ask for information on past animal health product use for any new does that you purchase? If this information is unavailable, do you consider the milk from these does unfit for human consumption? (7.5.8)					Y Record 1 or equivalent
7. What corrective actions would you take in the event that you know or suspect the milk may contain a contaminant? (7.5.9, 7.5.10, 7.5.11)				Y Question 17	
7.6 Cooling, Storing and Loading Raw Milk					
1. Do you ensure that equipment used to cool fluid milk can:					
a) Cool milk to 10°C within one hour and to between 1°C and 4°C within two hours after milking? (7.6.1, 7.6.3)					
b) Cool milk from subsequent milkings so that the blend temperature does not rise above 10°C and cooled to between 1°C and 4°C within one hour after milking?					
2. Do you monitor the bulk tank after each milking to ensure that it is meeting the above criteria and record the bulk tank temperature twice daily on Record 11: Daily Bulk Tank Temperature and Cleaning Record? (7.6.2)					Y Record 11
3. Do you have an action plan in place in the event that the bulk tank temperature is ever found to be above 4°C and no new milk has been added within the last 4 hours and record on Record 4: Problems and Corrective Actions? (7.6.4)				Y Question 18	
4. Is fluid milk transported to the processor within seven days of milking, unless stated otherwise in your province's regulations? (7.6.6)					

*NA = Not Applicable

8. Farm Chemicals	Yes	No	*NA	Details Required Part 2		Record Required	
8.1 General							
1. Do you purchase farm chemicals from a reputable dealer(s) that is licensed for use in Canada? (8.1.1)							
2. Do you store all hazardous products and chemicals in a physically separate location from feed, water supplies and areas where your goats are penned or housed? (8.1.5)							
3. Do you store machinery away from the animals and animal housing area to prevent contamination from chemicals such as fuel, oil or hydraulic fluid (8.1.6)							
4. What corrective actions would you take if your goats are exposed to chemical contaminants or hazardous materials (e.g. dog food or pesticides)? (8.1.7)				Y	Question 19	Y	Record 4
5. Do you dispose of agricultural and industrial chemicals in accordance with provincial guidelines or take to a hazardous waste facility for disposal? (8.1.8)							
8.2 Dairy Chemical Use and Storage							
1. Do all detergents, lubricants, sanitizers, pesticides and other pest control products used in the dairy comply with the requirements of CFIA and the Pest Control Act, as well as any provincial legislation? (8.2.1)							
2. Do you follow label instructions when using detergents and sanitizers? (8.2.2)							
3. Do you store all cleaning materials, detergents and sanitizers used to produce or handle milk in the milkhouse in containers with label instructions and in a location and manner that will not contaminate the milk? (8.2.3, 8.2.4)							
4. Are only products related to milkhouse operations stored in the milkhouse? (8.2.5)							

*NA = Not Applicable

9. Training Personnel	Yes	No	*NA	Details Required Part 2		Record Required	
9.1 Training Full-time, Part-time and Seasonal Workers (including Family Members) 1. Do you directly supervise all employees on all MUST DO GPPS until they are fully trained? (9.1.1)							
2. Do you maintain a record of training noting each area the person is trained in for all workers on your farm including family members? (9.1.2, 9.1.3)						Y	Record 12 or 13
3. Do you review procedures and records with staff at least yearly and sign and date upon review? (9.1.4)						Y	Record 12 or 13
4. Are all workers aware of the location of relevant on-farm food safety records? (9.1.5)							
5. How do you ensure workers are aware of changes in management areas/procedures (e.g. location of medicated animals) that are important to food safety? (9.1.6)				Y	Question 20		
9.2 Training Casual Workers 1. Do you update casual workers on current management practices every time they are employed? (9.2.1)							
2. Do you supervise casual workers when they perform duties outlined as MUST DO GPPs (such as administering animal health products)? (9.2.2)							
3. Do you maintain a record of dates when casual workers have been employed on your farm? (9.2.3)						Y	Record 12 or 13

*NA = Not Applicable

Part 2: Written Descriptions

1. Explain how you identify and track animals that have been individually treated with animal health products on your operation. (2.2.1, 7.5.1)

2. Explain how you identify and track groups of animals that have been treated with animal health products. (i.e. through medicated feed or water) (4.9.3)

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13. How do you ensure that the bulk tank is capable of meeting the following cooling criteria:

a) Cool milk to 10°C within one hour and to between 1°C and 4°C within two hours after milking?

b) Cool milk from subsequent milkings so that the blend temperature does not rise above 10°C? (7.2.7, 7.6.1)

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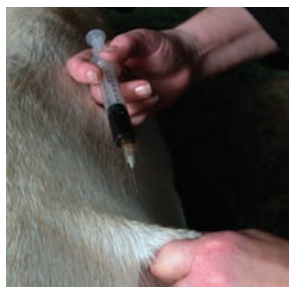
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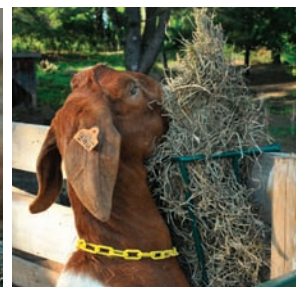
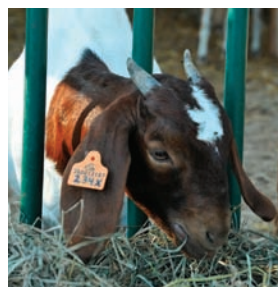
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Glossary



Glossary

Auditor	A qualified person who is responsible for assessing the compliance of an operation with the requirements of a recognized national on-farm food safety program.
Biological Hazard	Viruses, bacteria and the toxins produced by some bacteria and parasites that can cause disease in humans. Examples are <i>E.coli</i> , <i>Salmonella spp.</i> and <i>Sarcosporidian parasite</i> .
Biosecurity	A set of practices used to minimize the transmission of disease-causing organisms in animal populations including their introduction, spread within the population, and release. Biosecurity is proactive and focuses on routine, day-to-day on-farm activities to protect the health of the herd.
Chemical Hazard	Chemicals including heavy metals, pesticides, insecticides, fungicides, fertilizers and animal health products that can cause harm to humans through the consumption of contaminated meat or milk.
Chronic Disease	A disease that persists over an extended period. If a chronic condition is not successfully treated, performance will be negatively affected and the condition of the animal may deteriorate.
Codex Alimentarius Commission	A food standards Commission established by the Food and Agriculture Organization (FAO) of the United Nations, and the World Health Organization (WHO). Since 1962, Codex has developed international food standards to protect consumer health and facilitate fair trade. There are 165 member countries. Canada's participation is coordinated by the Health Protection Branch of Health Canada.
Corrective Action	Any action taken in an attempt to correct a problem, mistake or deviation from a "MUST DO" good production practice.
Critical Control Point (CCP)	Any point or procedure where control can be applied and a food safety hazard can be prevented eliminated or reduced to an acceptable level. For example, an on-farm CPP would be to properly restrain your goat prior to giving an injection to prevent the chances of a needle breaking off inside the animal.
 Cull Goats	A goat that is removed from the herd for any reason (e.g. disease, advancing age, loss of productivity or milk producing ability).
Dead Stock	Carcass or any part thereof that has died from any cause other than slaughter.
Dead Stock Disposal	Animals that die from any cause other than slaughter must be disposed of in accordance with provincial legislation.
Drug Identification Number (DIN#)	An eight digit number assigned by Health Canada to a drug product prior to being marketed in Canada, which uniquely identifies all drugs sold in a dosage form. The DIN is located on the label of prescription and over-the-counter animal health products that have been evaluated and authorized for sale in Canada.
Drug Residue	A drug level that can be detected in meat, organs or milk at specified times after the drug is administered.
Extra-label or Off-label Use	The use of an animal health product such as an antibiotic, in a manner other than what is specified on the label. It includes using a product for a different species, weight or age of animal, and for diseases or other conditions not listed on the label; administering a product at a different dosage, route, frequency, duration or timing of treatment or failing to observe the stated withdrawal period.

Euthanize	To destroy an animal that is unable to recover from an ailment or is unfit for human consumption, in a humane manner.
Good Production Practices (GPPs)	General steps, measures or procedures that control the operational conditions within a production unit, allowing for environmental conditions that are favourable to the production of safe food. These include, but are not limited to: facilities, handling, storage and equipment, inputs, personnel training, sanitation, maintenance of equipment and facilities, feeding, animal handling and management, animal pest control, water management, animal health, biosecurity, drugs and medications, recall of livestock or products, record keeping, or transportation. (General practices commonly described by a HACCP-based program).
Hazard Analysis Critical Control Point (HACCP)	HACCP (pronounced “haa-sip”) is a systematic approach used to assure food safety. The approach was originally developed by Pillsbury during the USA's aeronautical space-missions in the 1960s.
Hazard	Any biological, chemical or physical agent or factor that has the potential to cause human illness or injury.
Intramuscular Injection	An injection given into the muscle of the body.
Intravenous Injection	An injection given into a vein.
Medicated Feed	A mixed feed that contains a medicating ingredient.
Medicated Ingredient	A substance that is i) intended for use in the prevention or treatment of disease in livestock, or ii) a substance other than feed, that is intended to affect the structure or function of the body of the livestock.
“Must Do” Good Production Practice	Management practices identified by the Canadian Goat On-Farm Food Safety (GOFFS) Program as being critical to food safety. These practices must be followed at all times by producers interested in being accredited by this program.
Over-the-Counter (OTC) Medications	Animal health products that can be purchased without a veterinary prescription from veterinarians or any store selling livestock supplies. Producers assume the responsibility of following label directions and withdrawal times. OTC medications are not available in all provinces.
Physical Hazard	Foreign objects such as a broken needle that may be found in meat and milk products, and cause possible injury to anyone consuming the product.
Potable Water	Suitable for human consumption, according to Health Canada's Guidelines for Canadian Drinking Water Quality.
Prescription	Written or verbal instructions from a licensed veterinarian, given to a specific client with whom the veterinarian has a proper veterinarian/client/patient relationship. The instructions state the amount of drug(s) to be administered and length of treatment.
Prescription Drugs	Drugs restricted in their sale and use by, or on the order of, a licensed veterinarian. They require a proper diagnosis of the case and full and recent knowledge of the health of the particular animal(s). They are not available “on demand” and cannot be sold over-the-counter by non-professional staff. They must be adequately labelled with specific instructions for use.
Processed Feed	A feed that has been either physically, chemically, thermally or bacterially (or a combination of the above) altered prior to feeding it to the animal.

Reportable Diseases	Those diseases which are outlined in the Health of Animals Act and Reportable Diseases Regulations and are usually of significant importance to human or animal health or to the Canadian economy. Animal owners, veterinarians and laboratories are required to immediately report the presence of an animal that is contaminated or suspected of being contaminated with one of these diseases to a CFIA district veterinarian. Control or eradication measures will be applied immediately. Some provinces also have a list of reportable diseases and required response actions.
Sanitize	Procedures used during post-washing and pre-milking to ensure milking equipment is free of pathogens and other materials that may contaminate the milk.
Sequencing	This is a predetermined schedule of mixing and feeding that may start with the higher levels of medications first and ending with low levels, flushing, then followed by non-medicated feed. Feed records must be detailed enough to denote the last batch/ration and where in the sequence the medicated feed was processed and fed.
Sharps Container	A watertight, puncture resistant container for disposing used needles. Empty Javex bottles or other plastic containers are often used.
Somatic Cell Count (SCC)	Count of the mixture of dead epithelial cells (covering of the internal surfaces of the body) and leukocytes (white blood cells) that are transferred from the udder into the milk.
Subcutaneous (SQ) Injection	The injection of an animal health product just under the skin of an animal.
Tag (on hides/fleeces)	Dirt and manure on the fleece and hide of an animal.
Therapeutic Treatment	The treatment of an animal, usually with a drug, as a means of providing relief or cure from a disease or debilitating condition.
Veterinarian/Client/Patient Relationship	A relationship that exists when: i) the veterinarian has (VCPR) assumed the responsibility for making medical judgments regarding the health of the animals and the need for medical treatment, and the client (owner/caretaker) has agreed to follow the instructions of the veterinarian; ii) there is sufficient knowledge of the animal(s) by the veterinarian to initiate at least a general or preliminary diagnosis of the medical condition of the animal(s) by virtue of an examination of the animal(s) and/or by medically appropriate and timely visits to the premises where the animal(s) are kept; and, iii) the practising veterinarian is readily available for follow-up in case of adverse reactions or failure of the regimen of therapy.
Veterinary Prescription Feeds	Medicated feeds manufactured according to a written prescription supplied by a licensed veterinarian.
Withdrawal Period	The number of days required after the last treatment with a drug or vaccine before the animal may be slaughtered or milked to ensure that minimal chemical residues are present in meat or dairy products.
Zoonosis	Diseases that can be transferred from animals to humans such as ringworm and some contagious abortion causing organisms. Some "Reportable" diseases are also in this category.



Appendices



Appendix I: Dairy Facility Design

- Design the dairy facility for adequate drainage around buildings, especially in the milk loading and transfer areas. This will eliminate stagnant water, which is a breeding ground for bacteria and insects, and help to minimize the transfer of contaminants from one location to another on the farm.
- Ensure that all unused equipment, debris and unwanted plant growth are removed from around the buildings to minimize bacterial, insect and rodent populations.
- Ensure that the outside manure storage area and waste disposal discharge area are located at least the recommended distance of 30 m from the milkhouse or as specified by provincial regulations.
- Do not house any animals that are prohibited by regulations with the milking herd, including poultry and swine.

Milking Parlour

- Build the floor of the milking parlour of an impervious material that can be kept clean and in good repair.
- Ensure the milking parlour floor is sloped towards a floor drain to facilitate cleaning.
- Make certain the interior surfaces of the milking parlour are smooth, properly finished and well maintained.
- Ensure ceilings are dust-tight and that feed chutes located in the loft are closed during milking.
- Prevent condensation on the walls and ceilings, and minimize odours, by providing a sufficient amount of air circulation or ventilation in the buildings.
- Install adequate lighting in the parlour to ensure proper milking procedures can be followed and to allow for visual examination of the facility for cleanliness. In some provinces the inspector may monitor the intensity of the light.
- When constructing a milking parlour as a part of a dairy housing barn, locate it so that stable odours can not affect milk quality.
- Ensure all material used to construct the milking parlour can be kept clean and is not composed of material(s) that could contaminate or cause undesirable odours in the milk.
- Place a barrier between the milking parlour and the goat housing area to prevent the goats from entering the parlour between milkings, and to facilitate parlour cleanliness.
- Keep the milk parlour free of animals other than dairy species kept for the purpose of milking. Dogs may be used to move goats to the parlour for milking, but should not be allowed access to the area.
- If dairy equipment or milk contact surfaces are cleaned in the milking parlour, supply a source of hot and cold pressurized potable water, equipped with backflow prevention.

Milkhouse

- Only use the milkhouse to handle, store and cool the milk.
- Use impervious materials that can be easily cleaned to construct the milkhouse floor.

- Ensure the milkhouse floor is in good repair (i.e. free of breaks, depressions, cracks and surface peeling).
- Construct the walls and ceilings of the milkhouse with smooth, properly finished materials that can be maintained and cleaned.
- Ensure the joints between the floor and the walls are curved and waterproof. This will allow for easy cleaning and drainage.
- Confirm that the milkhouse contains a sink that meets provincial regulatory requirements and is large enough to clean the largest utensil or container used for milking or milk handling.
- Ensure all doors leading from the milkhouse to the outside, milking parlour or animal holding area are solid, tight fitting and self closing. This will minimize the entry of dust, insects, animals and unacceptable odours.
- Screen or otherwise protect all windows and other openings.
- Prevent condensation on the walls and ceilings, and minimize odours, by providing a sufficient amount of air circulation or ventilation in the milkhouse.
- Install sufficient lighting near the sink, to allow workers to see that the equipment is being washed thoroughly. In some provinces, inspectors will monitor the intensity of the light.
- Make certain that the light fixtures have shatterproof covers and are not located directly above the bulk tank or utensil areas.
- Ensure floor drains are clear so they can handle the wash water from the milking equipment and, if applicable, the bulk tank. For proper cleaning and maintenance, it is recommended floor drains not be placed under the tank or freezer.
- Dispose of liquid wastes in compliance with local Health or Agriculture Department regulations and in a sanitary manner that prevents contamination of surface or groundwater. Keep disposal areas enclosed to control insect populations and to minimize unwanted odours in the milking parlour or milkhouse.
- Store items off the floor in order to allow proper cleaning of the floor.
- Supply the milkhouse with pressurized, hot and cold, potable water (i.e. fit for human consumption). There must be a sufficient supply of hot water and of adequate temperature to allow for daily cleaning of the facility, and equipment.
- If the refrigeration compressor, vacuum pump for the milking system, water heater and water pump are located in the milkhouse, they must be installed and operated in a manner that does not contaminate the milk. The recommended practice is to install this equipment in a separate room.
- Hand washing facilities must be present in the milkhouse. This includes soap or detergent, hot and cold running water plumbed to a sink, individual sanitary towels, and a proper lavatory fixture or basin. Locate the sink in an area in the milkhouse that is also convenient to the milking parlour.
- Properly insulate and heat the milkhouse to prevent it from freezing.
- All chemicals, including animal health products that are kept in the milkhouse must be stored in a secure location to prevent contamination of the milk.
- Keep all animals out of the milkhouse.
- Have a heating system in the milking parlour to prevent it from freezing.

Appendix II: Canadian Water Quality Guidelines for Livestock

ITEM	MAXIMUM RECOMMENDED LIMIT (mg/L)
Major Ions	
Calcium	1,000.0
Nitrate and nitrite	100.0
Nitrite alone	10.0
Sulphate	1,000.0
Total Dissolved Solids (TDS)	3,000.0
Heavy Metals and Trace Ions	
Aluminum	5.0
Arsenic	0.5*
Beryllium	0.1**
Boron	5.0
Cadmium	0.02
Chromium	1.0
Cobalt	1.0
Copper	0.3
Fluoride	2.0***
Iron	no guideline
Lead	0.1
Manganese	no guideline
Mercury	0.003
Molybdenum	0.5
Nickel	1.0
Selenium	0.05
Uranium	0.2
Vanadium	0.1
Zinc	50.0

Source: Task Force on Water Quality Guidelines, 1987

* 5.0 if not added to feed

** Tentative guideline

*** 1.0 if fluoride present in feed

Appendix III: Provincial Regulations for the Handling and Disposal of Deadstock

British Columbia

The disposal of dead animals is specified in the Code of Practice, Part 8, Sections 23 and 24 of the Agricultural Practice for Waste Management. The disposal of animals on farm is allowed if producers practice burial, incineration or composting. (www.agf.gov.bc.ca).

Alberta

The handling and disposal of dead animals is legislated under the Livestock Diseases Act Regulations which require that dead animals be properly handled, stored and/or disposed of within 48 hours. (www.agric.gov.ab.ca)

Saskatchewan

Saskatchewan regulations state that all dead animals must be disposed of in 48 hours with the five commonly acceptable methods of storage and disposal being rendering, burial, incineration, refrigeration and composting. (www.agr.gov.sk.ca)

Manitoba

The handling of dead stock in Manitoba is covered under the Livestock Manure and Mortalities Regulation under the Environment Act. All mortalities must be stored and kept either refrigerated or frozen if they cannot be disposed of in 48 hours. Acceptable disposal methods include rendering, composting, burial or incineration. (www.gov.mb.ca)

Ontario

The disposal of dead stock is regulated through the Dead Animal Disposal Act, under which producers have three legal options for disposing of dead stock; rendering, burial or composting. (www.omaf.gov.on.ca)

Quebec

In Quebec, according to the Agricultural Products, Marine Products and Food Act, there are only two options for non-renderable meat; rendering or incineration. A producer, however, may bury dead animals if the land is exclusively under his own production.

New Brunswick

In New Brunswick animal disposal procedures are specified by the Health Act. Carcasses must be disposed of within 24 hours by burial, incineration or any other method approved by a district medical health officer. (www.gov.nb.ca)

Prince Edward Island

Under the Environmental Protection Act, dead stock in Prince Edward Island can be disposed of by rendering, composting or on-farm burial. (www.gov.pe.ca)

Nova Scotia

There are no specific regulations for the handling of dead stock.

Newfoundland

There are no specific regulations for the handling of dead stock.

Appendix IV: Reportable and Other Contagious Diseases

Reportable Diseases Affecting Goats – Diseases Occurring in Canada

DISEASE/CAUSE	SIGNS	COMMENTS
Anaplasmosis <i>Anaplasma spp.</i> Rickettsial parasite found in red blood cells. Transmitted by ticks, biting insects, needles, dehorning, castration and ear tagging equipment.	May not show signs until stressed. Depression, emaciation, anemia and death.	Blood test and destroy affected animals.
Anthrax (Z) <i>Bacillus anthracis.</i> Found in contaminated soil; contaminated hide may also be a source.	Progresses so rapidly that clinical signs are generally not seen. Death, with black tarry blood around body openings.	Deep burial of intact carcass. Vaccination where outbreaks have occurred.
Bluetongue <i>Reoviruses.</i> Transmitted by insect vector <i>Culicoides varipennis</i> in fly season.	Fever, reddening of oral and nasal cavities, swelling of lips, tongue and gums. Ulcers on tongue; latter may become swollen and purple. Swallowing and breathing difficult, nasal discharge and drooling with blood. Dark purple skin/hoof junction and death.	Test and slaughter affected animals. Restricted at present to sound central British Columbia.
Brucellosis (Z) <i>Brucella abortus</i> is reportable. <i>Brucella melitensis</i> and <i>Brucella ovis</i> are not reportable.	Reportable organism causes: abortions, stillborn or weak kids.	Reportable Brucellosis is found on post mortem examination of aborted or nonviable lambs or by blood testing older animals. Affected herds undergo supervised slaughter and testing by CFIA. Federal compensation for destroyed animals.
Rabies (Z) <i>Rhabdovirus.</i>	Change in behavior, which can vary from irritation, excitability and aggression to depression. Often drooling and staggering with eventual paralysis.	Destroy suspected animals and test brain tissue. May require quarantine of other animals depending on circumstances.

Reportable Diseases Affecting Goats – Diseases Occurring in Canada continued

DISEASE/CAUSE	SIGNS	COMMENTS
Scrapie Abnormal prion protein carries or is the infectious agent. Occurs naturally. Transmitted from doe to kid or goat to goat via oral route (birthing fluids and tissues).	Behavioural changes (apprehension, teeth grinding, biting and aggression). Altered sensory functions (itching, licking, inflammation of skin, nibble reflex). Tremor, abnormal posture and gait (staggering, bunny hopping, lying down). Loss of hair and weight. May only see a few of the above signs, which can be confused with other diseases. Clinical signs slow to develop (usually more than 18 months). Animals infected for life. Majority of clinical cases in animals ages 2-5 years. Eventually fatal.	Member of the family of diseases known as Transmissible Spongiform Encephalopathies (TSEs). Requires diagnostic procedures on brain tissue. Flocks or herds affected undergo supervised slaughter and testing by CFIA. Federal compensation program for destroyed animals. Policy to assure no infected material enters the human or animal food chain. Also restrictions on rendering of all goats and other ruminants to prevent ruminant-to-ruminant feeding of rendered product.

Reportable Diseases Affecting Goats – Diseases Currently Not in Canada

DISEASE/CAUSE	SIGNS	COMMENTS
Foot and Mouth <i>Picornavirus</i> . Highly contagious	Occasionally have marked signs similar to cattle which includes: salivation, depression, anorexia, lameness and painful blisters on lips, tongue, gums, nostrils, skin/hoof junction, inter-digital spaces and teats. Fever and decreased milk production usually precede the blisters.	Detection and immediate eradication. Quarantine and destroy animals under CFIA supervision. Avoid carrying meat, dairy or other animal products from countries that have it. If travelling to countries with outbreaks, stay away from Canadian farms for 14 days. Wash and disinfect all personal effects, equipment, especially footwear. Implement a biosecurity plan that prevents anyone who was in a country in the past 14 days that has this disease, from visiting your farm.
Lumpy Skin Disease <i>Capripoxvirus</i> .	Fever, swellings, depression and painful nodules in skin, lameness.	Found in Africa, Egypt and possibly the Middle East.

Reportable Diseases Affecting Goats – Diseases Currently Not in Canada continued

DISEASE/CAUSE	SIGNS	COMMENTS
Peste des Petits Ruminants <i>Morbillivirus</i> . Similar to Rinderpest virus.	Sudden fever, nasal discharge, coughing, abortion, dehydration, emaciation and death.	Found in Africa, Arab peninsula, Middle East and India. Rinderpest vaccine commonly used.
Rift Valley Fever (z) <i>Phlebovirus</i> .	Fever, anorexia, weakness, nasal discharge, vomiting, abortion and death.	Presently not in Canada, but found in Africa.
Sheep and Goat Pox <i>Capripoxvirus</i> .	Mild to severe fever and depression. There may be a few to many nodules on the skin which may extend to the digestive and respiratory tract. The skin nodules progress to scabs and hairless scars.	Endemic in Africa, Middle East and Asia.

Other Contagious Diseases

Remember to handle aborted material (stillborn lambs and afterbirth) with care, using gloves and disposing by burning or other appropriate methods as they may carry an agent that is infectious to people (marked “z” for zoonotic disease).

DISEASE/CAUSE	SIGNS	COMMENTS
Tuberculosis (Z) <i>Mycobacterium bovis</i> .	Tumour-like masses or firm abscesses called tubercles in lungs and lymph nodes; may be involvement of other sites including the intestines.	Found by testing suspect lesions in live animals, at slaughter and post-mortem or by using live animal tuberculin skin test.
Enzootic abortion (Z) <i>Chlamydia psittaci (ovine)</i> . Rickettsial organism.	Most does show no clinical signs before aborting. Kids can also be born 2-3 weeks early. Placenta (afterbirth) is often thickened and discoloured with an abnormal discharge.	Does resistant (immune) after aborting may shed the organism and should be culled. Results inconsistent after injecting long-acting tetracycline. Better vaccines now but hard to obtain in Canada. Can cause abortions in women. Extreme care should be taken.

Other Contagious Diseases continued

Toxoplasmosis (Z) <i>Toxoplasma gondii</i> . Protozoan parasite. Source is from infected cat feces or from the placenta of infected goats.	Early embryonic deaths causing abortion, mummified fetuses, and weak kids. Buttons of placenta (afterbirth) may have pinpoint white spots.	Aborted does immune. As young cats are primary source try to have stable population of older neutered cats if needed for rodent control. Cat feces and placental tissues from infected does can cause abortions in women. Extreme care should be taken.
Border Disease <i>Pestivirus</i> . Caused by a number of strains. Some are the same as Bovine Viral Diarrhea (BVD) virus in cattle. Others are found only in sheep and goats. Carrier goats or cattle can be sources.	Abortions, stillborn kids may have tremors or other congenital abnormalities. Persistently infected kids have shortened life span due to decreased immune function.	To prevent, purchase animals from free herds, quarantine and/or test before introduction into the herd. Cattle should not be housed or pastured with pregnant does. Cattle vaccine for BVD virus may work if of the same strain.
Salmonellosis (Z) <i>Salmonella spp.</i>	Abortions, early loss of kids. Does often ill before or after aborting. Survives a long time in dry manure.	Treatment, control and prevention should be discussed with veterinarian. Disease uncommon but devastating.
Q Fever (Z) <i>Coxiella burnetii</i> . Rickettsial organism (found in many animals)	Late abortions, kids may be rotten. Placenta is thickened and discharge is abnormal. Infection in humans causes flu-like signs.	An uncommon cause of abortion in goats. May be related to stress. Organism shed in placenta, birthing fluids, urine, feces and milk.
Listeriosis (Z) <i>Listeria monocytogenes</i> . Widespread in environment.	Abortion, rotten fetus. Doe sick with metritis. If organism attacks the brain, will see nervous signs (in-coordination, circling, depression, awkward movement). Avoid feed contamination.	Don't feed mouldy silage or haylage to goats. May overgrow in poorly preserved silage or other moist feeds.
Brucellosis (Z) <i>Brucella melitensis and Brucella ovis</i> . Also caused by <i>Brucella abortus</i> , which is reportable.	Non-reportable organisms cause epididymitis in rams. Sexual transmission. Can cause infertility and abortion in does.	Non-reportable Brucellosis. Aborted materials highly contagious so handle with extreme caution. Try to use only virgin bucks and don't mix with suspected bucks.

Other Contagious Diseases continued

Ovine Progressive Pneumonia <i>Maedi visna virus.</i>	<p>Appear healthy but may see low growth rates in kids due to decreased milk production. Most show no signs; some may have labored breathing, coughing, hard udders, staggering.</p>	<p>No known treatment. Eradication by blood tests and culling. Infected goats are lifetime carriers.</p>
Caseous lymphadenitis <i>Corynebacterium pseudotuberculosis.</i>	<p>Abcessed lymph nodes on head and neck. Also abscesses in lungs, liver and internal lymph nodes. Major cause of carcass condemnation/trim at slaughterhouses.</p>	<p>Abcess material is extremely contagious and persistent in wood, manure, straw, soil and tap water. Blood test and vaccine available. For valuable animals can try treatment; consult your veterinarian.</p>
Foot Rot <i>Dichelobacter nodosus.</i> Usually with <i>Fusobacterium necrophorum.</i>	<p>Infected area between toes and skin/hoof junction. Lameness and deformed feet. Eventually separation of hoof from underlying structures and foul smell.</p>	<p>Thoroughly foot trim and disinfect shears between animals. Separate out infected animals and cull. Use footbath (1 hour 20% Zn SO) or other recommended treatments, turn goats onto dry ground. Vaccine does not eliminate the disease.</p>
Johne's Disease <i>Mycobacterium avium: var. paratuberculosis.</i> Can become infected from carrier cattle.	<p>Chronic weight loss and occasionally terminal diarrhea. Lower milk production. Can take 2-7 years for clinical signs to appear.</p>	<p>Watch for rapid weight loss while continuing to eat well. Diagnosis by post mortem. Some labs can test feces and blood but may be undetectable at early stage. Culling and manure management program. Suggested link to Crohn's disease in humans but not proven.</p>
Malignant Catarrhal Fever <i>OHV- 2 virus.</i> Affects cattle, bison, deer and elk. Spread by the placenta and direct contact.	<p>Goats carry virus but not affected. Dead goats do not transmit the disease. Goats can transmit the virus to bison, cattle, elk, deer.</p>	<p>Avoid directly pasturing goats with cattle, bison, deer, and elk or ensure a distance separates them, particularly at birthing time.</p>

Other Contagious Diseases continued

Contagious Ecthyma (orf or sore-mouth) (Z) <i>Parapoxvirus</i> . Also affects deer and goats.	Scabby lesions around mouth teats, and occasionally along skin/hoof junction. Immunity is short-lived.	May need to help kids nurse. Always wear gloves when treating or handling suspect animals. Antiviral disinfectants may help; watch for secondary bacterial infections. Vaccination can be considered in affected herds; consult your veterinarian.
Sarcosporidiosis <i>Sarcosporidia spp.</i> A protozoan parasite in carnivore host (dogs or cats).	Muscle cysts usually not associated with clinical signs. Occasional cause of abortion and nervous signs.	Carcass condemnation. Prevent contact with carnivore (dog/cat) feces properly.
Mange <i>Psoroptes and Choroptes spp.</i> Mite parasite.	May be intense itching, scratching, or hair loss with small vesicles that break/crust.	Treatment or infestation depends on type or mite and risk of spread.
Coccidiosis <i>Eimeria spp.</i> Protozoan.	Most live on or under the skin; some may adapt to ears.	External sprays, dips and baths may be advised.
Leptospirosis (Z) <i>Leptospira Pomona and other serotypes</i> . Spread by urine and urine in water.	Affects 4-8 week old kids. Kids have diarrhea, dehydration and weight loss.	Dry, clean environment helps reduce. Prevent feed contamination.
Cryptosporidiosis (Z) <i>Cryptosporidium parvum</i> . Can live in water.	Spiral-shaped organism found in animals and humans. Very few clinical signs and can vary from high fever, depression and appetite loss, possibly abortion. Diarrhea at 5-10 days of age, milder than coccidiosis.	May see no signs at all. Occurs less frequently in goats than cattle or swine. Self-limiting. Found in intestines of many animals and humans. Supportive care.

Other Contagious Diseases continued

<p>Giardiasis (Z)</p> <p><i>Giardia duodenalis</i>. Can live in water. Found in intestines of infected people (with or without symptoms), wild and domestic animals.</p>	<p>Recognized as one of the most common causes of waterborne illness. Found in every region of the world. Can cause diarrhea, abdominal cramps, nausea in humans.</p>	<p>Also known as “beaver fever”. Parasite shed in feces of animals and people. Important preventive measures include washing hands thoroughly after toilet visits or handling manure, carefully disposing of sewage/manure, so as not to contaminate surface water or groundwater, and avoid consuming improperly treated drinking water.</p>
<p>E. coli 0157:H7 (Z)</p> <p><i>E. coli 0157:H7</i>. Can live in water. Has been found in goats, cattle, sheep, horses, deer, dogs, poultry, zoo animals, seagulls, houseflies, fruit flies and humans.</p>	<p>Does not appear to make animals sick but a percentage will carry and shed the bacteria in feces.</p>	<p>Destroyed by heat. Important preventive measures include washing hands thoroughly after toilet visits or handling manure, carefully disposing of sewage/manure so as not to contaminate surface water or groundwater, and avoid consuming improperly treated drinking water.</p>



For more information about the GOFFS Program,
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