Canadian Food Inspection Agency | Agence canadienne d'inspection des aliments

Canada

Animal Biosecurity

Biosecurity in Effect

Pocket Guide for the National Farm–Level Mink Biosecurity Standard

Growing Forward
A federal-provincial-territorial initiative

FFCMA

CMB
Canada Mink Breeders

Dedication

The Standard is dedicated to the late Dr. Bruce Hunter, professor emeritus of the Ontario Veterinary College, who laid the foundation for this document. Dr. Hunter's dedication and significant contributions to the field of veterinary medicine and the fur-bearing industry improved the health and welfare of farmed mink.

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Introduction

The National Farm – Level Mink Biosecurity Standard is a set of outcome based guidelines (target outcomes) to help producers establish a comprehensive biosecurity program to reduce the transmission of microbial pathogens that cause mink diseases. The target outcomes are flexible rather than prescriptive, allowing producers to determine how they can be best achieved on their farm. The target outcomes are meant to be implemented as a suite of measures with some being easily implemented while others will take additional time and planning to achieve. Given the variability in farm layout, building/shed design, resources and staff available, some of the target outcomes may be difficult to implement on certain farms.

It is not the intent of the Standard that producers significantly alter the physical layout, design and construction of current buildings to achieve the target outcomes; rather, producers, working with their veterinarian and other technical specialists, can determine how best to achieve the outcomes on their farm using the biosecurity principles provided. When producers expand operations, redesign facilities or new producers plan a facility, the Standard should be consulted to facilitate the achievement of the biosecurity target outcomes.

The development of the Standard was a collaborative project. It included mink producers, subject matter experts, advisory groups and leaders in industry and government and supported by the auction houses, to reduce the prevalence of current and emerging infectious diseases and to contribute to increased productivity / cost-effectiveness and improved animal welfare.

What the Standard **IS** and **IS NOT**

The Standard Is	The Standard Is Not
voluntary	mandatory
a set of risk-based management guidelines, addressing disease in a broad context, warranting thought and consideration in most mink operations across Canada	a list of "must do(s)," designed for a specific disease, to be achieved regardless of regional and operational differences
based upon principles, each of which can be achieved in a variety of ways	a prescriptive set of practices
specific to mink and biosecurity practices used by the Canadian industry	taken from another sector or country, and re-designed for the Canadian mink farming sector
practical and science-based, developed with consideration for the transmission of infectious pathogens across the range of mink production systems	idealistic, developed without consideration for the feasibility of implementation
a collaborative project, developed by producers, subject matter experts, advisory groups, and leaders in industry and government	the work of one stakeholder
cost effective, focusing upon practices and procedures that impact disease	costly in terms of new equipment or infrastructure, or requiring significantly different ways of doing business

Zoning the farm site

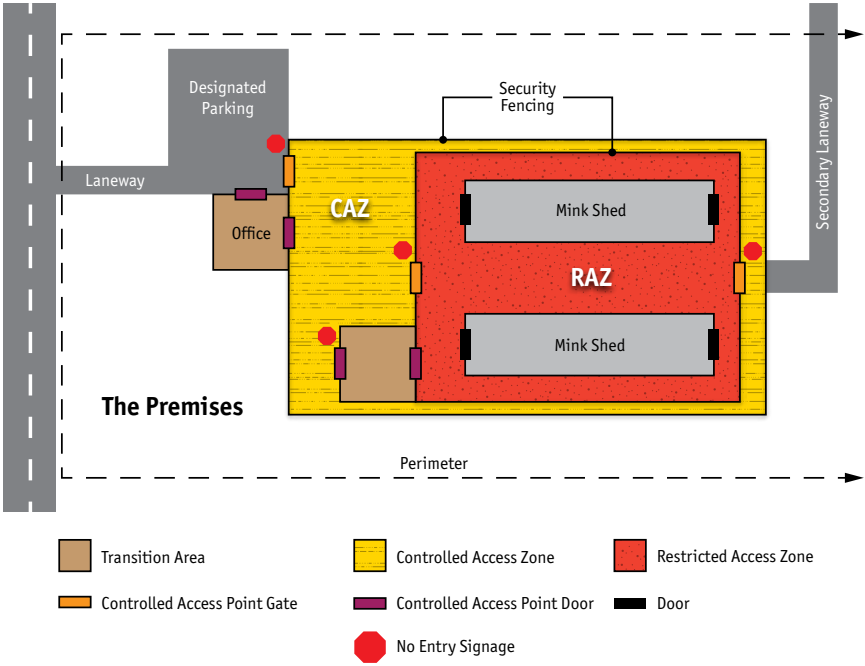
Employ a three-zone concept for the farm premises (refer to Figure 1):

1. **Determine Boundaries of the Site – The Premises:** The "premises" refers to the entire property on which the mink are raised and is interchangeable with the term "farm site."
2. **Establish a Controlled Access Zone:** The "controlled access zone" (CAZ) refers to the area of land and buildings constituting the mink production area

of the premises that is surrounded by a security fence and only accessible through a securable controlled access point. A CAZ restricts the access of visitors, vehicles, equipment, and animals (including wildlife) at the perimeter of the mink production area

3. **Fence the Controlled Access Zone:** A security fence surrounding the CAZ provides greater control over all areas which can impact mink health and is preferred to fencing the Restricted Access Zone (RAZ). If only one fence exists on the premises, then it is preferred that it exists around the CAZ.
4. **Establish Controlled Access Points:** A controlled access point (CAP) regulates access to the CAZ and RAZ. It is a single point / designated entrance to a specific area which enables traffic control and ensures that equipment and procedures are available to effect biosecurity measures.
5. **Establish a Restricted Access Zone:** A restricted access zone (RAZ) controls access to the mink sheds or areas where mink are housed and should include the feed kitchen. For practical purposes, it may also contain the pelting area. Including the feed kitchen in the RAZ minimizes access to and possible contamination of feed ingredients and feed.

FIGURE 1—Biosecurity zones for mink premises, CAZ, and RAZ



The sample site plan (Figure 1) identifies three biosecurity zones: the area outside the Controlled Access Zone (CAZ), the CAZ, and the Restricted Access Zone (RAZ). Key features include

a. primary and secondary access points where the secondary access point or laneway is used for waste removal and mink shipments, while the primary access point is used for everything else;
b. parking for staff and visitors, which is located outside the CAZ;
c. an office where visitors sign in for possible entry to the transition area and the CAZ;
d. security fencing of the CAZ and the RAZ;
e. controlled access points and transition areas that meet biosecurity protocols to enter the CAZ and/or the RAZ; and
f. doors, with signage, used as barriers to the CAZ and the RAZ, for managing access at the controlled access points by staff and visitors.

Access Management

Biosecure Zones and Movement Protocols

Keep mink secure from strangers, visitors, and wildlife by controlling access to the sheds and farm and by establishing protective zones and implementing movement controls:

a. Control entry to the mink housing and other production facilities on the farm site.
b. Use barriers and signage or other readily visible indicators to alert visitors that they require the producer's permission to enter.
c. Use dedicated on-farm clothes (i.e. not worn off the farm) to improve biosecurity.
d. Provide visitors with protective clothing; at a minimum, supply boot covers and clean outerwear for visitors to put on before entering the RAZ and to take off when leaving the RAZ.
e. Provide and require the use of equipment and supplies to wash or sanitize hands at the entrance of sheds.
f. Provide and maintain an area at the entry of the CAZ and RAZ with the necessary equipment and supplies to clean and disinfect boots (i.e. a transition area with a boot wash).
g. Ensure the entrance to the farm site and / or CAZ can be closed in the event the farm needs to be locked down.
h. Locate designated parking for staff and visitors outside the CAZ.

i. Install and maintain a properly constructed security fence that is designed to prevent the escape of mink and access by wildlife, feral animals, and escaped farmed mink.

Animal Health Management

Animal Introduction, Movements, and Removal

BUY CLEAN and STAY CLEAN

a. Ensure new mink are healthy by sourcing from reputable suppliers that apply and document sound medical and biosecurity practices in their herds.
b. Reduce the opportunity for disease introduction by limiting the frequency of mink introductions and movements.
c. Maximize downtime on the site and between mink groups.
d. Practise strict biosecurity when handling, catching, and moving mink.
e. Ensure all sites have a sufficient number of pens to isolate new mink
f. Apply isolation procedures for all new mink arrivals, whether newly purchased or moved between producer-owned farms

Animal Health Monitoring and Response

a. Know the clinical signs of poor health in mink and the appropriate disease response measures.
b. Monitor animal health, and maintain records at least daily.
c. Maintain a daily mortality log, and perform regular monitoring of all mink.
d. Increase animal health monitoring during periods of increased disease risk.
e. Obtain the advice of veterinarians on implementing a herd health program.
f. Do not allow escaped mink to re-enter the farm premises.
g. Implement enhanced biosecurity to prevent the spread of a disease when unusual clinical signs or high mortality is observed.
h. Lockdown the premises by restricting deliveries, shipments, and the movements of animals, equipment, vehicles and people; and by notifying industry suppliers and neighbours.

Operational Management

Mortalities, Manure, Garbage, and Waste

a. Properly handle, store, and dispose of mortalities, garbage, and pelting waste to effectively reduce the risk of transmitting microbial pathogens on and off the premises.

b. Comply with federal, provincial, and municipal government regulations regarding mortality, carcass and manure storage, and disposal.
c. Establish a mortality collection and disposal system on each premises.
d. Promptly collect dead mink in leak-proof containers for subsequent removal to a temporary storage area or disposal location.
e. Ensure mortality, garbage, and pelting waste storage and disposal areas are designed to prevent scavenging by wildlife or pets.
f. Ensure mortality, garbage, and pelting waste storage prevents exposure of mink and other animals to microbial pathogens.
g. Ensure staff wear appropriate biosecurity clothing and follow biosecurity protocols during the pelting process and when handling manure, mortalities, and garbage.
h. Collect, store, and dispose of manure, garbage, and pelting waste in a biosecure manner.

Water

Drinking water for mink should be free of contamination and meet water quality standards for livestock consumption:

a. Use drilled well or municipal water supplies, closed drinking systems, and nipple drinkers where feasible.
b. Treat surface water if used to supply water for drinking and/or misting.
c. Test water quality at least annually.
d. Treat the incoming water, and clean and disinfect the water system, if required.

Feed

Supplying mink with quality feed is the goal of every mink producer. Procedures are in place for feed kitchens and feed delivery personnel to minimize the risk of pathogen transmission between farms:

a. Good manufacturing practices are in place in all feed and feed ingredient storage and processing areas.
b. The feed production area is considered a RAZ, and all biosecurity precautions entering and leaving a RAZ are followed.
c. Feed ingredient and feed storage facilities are well-maintained and functional.
d. Proper feed ingredient and feed-handling practices are in place, which include maintaining and sanitizing feed equipment.
e. Proper timing of handling, storage, processing, and feeding of feed ingredients and mixed feed will reduce potential pathogen growth.
f. A program to monitor the bacterial levels of feed ingredients and finished feed is in place in all feed production areas.

g. Biosecurity procedures are developed for feed delivery to feed kitchens, which include flexible scheduling, use of personal protective equipment and truck sanitation, in the event of an infectious disease event.

Bedding

a. Purchase bedding that is free from contaminants.
b. Store bedding to ensure that it is kept clean and dry.
c. Keep the bedding storage facility doors closed.
d. Include the bedding storage facility in the farm pest-control program.
e. Handle clean bedding material in a biosecure manner.
f. Provide a healthy environment for mink by monitoring bedding condition, and adding or changing bedding routinely, or as required.
g. Remove old or soiled bedding material from the production area to the waste storage area.

Premises and Sanitation

a. Carry out cleaning and disinfection procedures when mink sheds and facilities are empty.
b. Clean facilities first by removing visible organic material, and then use a cleaning solution to wash or foam/rinse remaining organic material and biofilm.
c. Select a proper disinfectant for the problem pathogens that the farm has encountered, and use only on facilities that have been properly cleaned.
d. Follow the manufacturer's recommendations in mixing and applying the disinfectant solution.
e. Recognize that facility and site design should enhance the drainage of water away from the production area.
f. Inspect and maintain facilities, fences, gates, doors, and pens to prevent pest entry and mink escapes

Sanitation and Pest Control

a. Pests, dirty equipment, and vehicles can transmit disease and must be managed appropriately by sanitation and pest control programs.
b. Poorly constructed and maintained buildings can provide access and refuge for pests, resulting in the accumulation of microbial pathogens and pests on-site.
c. Use humane methods of pest exclusion by focusing first on making mink housing, feed, and bedding areas "pest proof."
d. If prevention measures fail, use lethal methods of pest control, in consultation with pest control experts, to ensure the safety of mink, people, pets, and non-target species.

e. A well-designed and constructed security fence is an important biosecurity measure in excluding many pests.

Biosecurity Program and Training

a. Recognize that management and staff are more likely to implement biosecurity when they understand its importance.
b. Facilitate the learning and implementation of biosecurity for staff by developing written procedures for common tasks and ensuring the staff understands them.
c. Provide biosecurity training for farm staff, family, service providers, and visitors.
d. Keep a record of deviations that occur concerning the farm's biosecurity procedures.

National Farm-Level Mink Biosecurity Standard: Advisory and Management Committees

The Standard's development benefited from comment and direction that were provided by the following members of the Advisory and Management Committees:

Mink Biosecurity Advisory Committee

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- Nancy Daigenault, North American Fur Auctions (NAFA)
- Dr. Gord Finley, Veterinary Animal Health Consultant
- Jeff Gunn, Mink research – Nova Scotia Agricultural College
- Gary Hazlewood, Executive Director - Canadian Mink Breeders Association (CMBA)
- Dr. Bruce Hunter, Professor Emeritus, University of Guelph, Ontario Veterinary College (OVC)
- Paul Mauer, American Legend Cooperative (ALC)
- Tom McLellan, mink producer
- Jeff Mitchell, mink producer
- Marianne Patten, mink producer, CMBA provincial representative
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