Developed by Fur Commission USA in consultation with qualified Veterinarians, Animal Scientists, Farmers and Animal Welfare Professionals

STANDARD GUIDELINES FOR THE OPERATION OF MINK FARMS IN THE UNITED STATES

2019 Edition

Book 1:

Standard Guidelines for the Operation of Mink Farms in the United States

FURMARK
THE INTERNATIONAL MARK
OF RESPONSIBLE FUR

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The following humane certification standards for mink farms in the United States comply with all internationally recognized animal welfare criteria, and qualify all mink raised under the *Standard Guidelines for the Operation of Mink Farms in The United States* to receive the FurMark® label.

FurMark® is a program developed by the International Fur Federation, and constitutes a world-class, comprehensive certification and traceability program that covers animal welfare, sustainability, and the dressing and dyeing of fur. In order to be FurMark® certified, farm management standards are required to adhere to the following principles.

1. Certification programs must meet recognized country regulations including; Truthfulness, Transparency, Sustainability, Relevance, Accessibility, Efficiency, Engagement, Impartiality, Improvement, Rigor

2. Certification programs and their individual protocols must be; science based, peer-reviewed by independent experts, and publicly available

3. Verification systems must be impartial and conducted by qualified third parties

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PREFACE

Domestication and artificial selection of livestock have made farm animals dependent on humans. This dependence has made it incumbent upon humans to practice responsible stewardship in the treatment of animals under our care. The American Veterinary Medical Association (AVMA) has defined animal welfare as "*... a human responsibility that encompasses all aspects of animal well-being, including proper housing, management, nutrition, disease prevention and treatment, responsible care, humane handling, and when necessary humane euthanasia.*" These animal care Guidelines represent an important step toward fulfilling that stewardship. These Guidelines, also referred to as "best management practices," or "approved management practices," are intended to be used by the mink farmers and veterinarians in the field, scientists, and animal welfare organizations as an educational tool in the promotion of sound animal husbandry and responsible animal welfare practices. The recommendations do not claim to be comprehensive for all circumstances but attempt to define high standards of mink production and well-being in commercial, research, educational and other farm operations. They can also serve as a benchmark by which farm operators can compare and improve their own managerial practices. It should be understood that new scientific discoveries, improved technologies and new management techniques may lead to revision of these Guidelines.

DEFINITION

In its wild state, the American mink (Neovison vison) is a small, brown, semi-aquatic, fur-bearing animal, a member of the weasel family, rarely exceeding 1,350 grams (3 pounds) of body weight. Wild mink are fierce, solitary carnivores with an average life span in the wild of less than 2 years, with most failing to survive the first six months. American mink are native only to North America and vary in size, fur quality and appearance in different geographical locations, giving rise to a number of subspecies. In the United States, mink have been raised on farms since 1866, with the first farms being in upstate New York. The three main subspecies that contributed their gene pool to farmed mink were Neovison vison vison (Quebec, Eastern Labrador and Nova Scotia), Neovison vison ingens (Alaska), and Neovison vison melampeplus (Kenai). Today, it is impossible to differentiate the farmed mink according to the original wild subspecies, so they are generally called descendants of Neovison vison and commonly known as domesticated or farm-raised mink. Several desirable subspecies have been combined and bred selectively for desirable traits such as docility, size, coat specialty and color, fecundity, mothering ability and best growth and survival of offspring. This, combined with good nutrition and comfortable housing, has resulted in a much larger animal and of a much quieter temperament. In the course of more than a hundred generations, many natural color phases have occurred, and the desirable ones have been established as separate and genetically stable color types. On the farm, mink are protected from disease, predation, starvation, and they thrive under the farmers care. In this document, "mink" strictly refer to the farm-raised variety and not its wild counterpart.

INTRODUCTION

In 1985, the Fur Farm Animal Welfare Coalition published the nation's first set of operating Guidelines for the benefit of farm raised mink and fox in the United States. The Guidelines were designed to assist farmers in assuring a humane environment for the animals under their care. The Guidelines were prepared by leaders in the U.S. fur farming industry, including professionals in the fields of veterinary medicine and animal nutrition, and the farmers themselves. The Guidelines were then peer reviewed by outside professionals. The Humane Care Merit Award Program was established as the assessment program for the newly established Guidelines and this program has won wide acceptance in the U.S. farm-raised mink industry. By 1990, the vast major ty of American mink production came from farms which met these standards and passed inspection by an independent veterinarian. This high level of voluntary participation reflects the commitment of American fur farmers to standards of humane care. In 1994, fur farming leaders undertook a comprehensive update and revision of the industry's humane care Guidelines, creating separate Guidelines for mink and fox. The results of that process are presented in this booklet which focuses on mink and is published by the Animal Welfare Committee of Fur Commission USA. Since 1994, the mink Guidelines have been reviewed and modified numerous times and it is a document that is continuously under review, reflecting changes in animal science. We are proud to submit these Guidelines to U.S. mink farmers, and commend you for your continued commitment to excellence in farm management and dedication to the principles of responsible animal stewardship.

The Board of Directors
Fur Commission USA

GLOSSARY

Abnormal behavior - Behavior that is not consistent with stage of growth, contentment, or state of good health.

Adult mink - Classified as all mink after February 1st of their first year and anytime thereafter.

Aleutian Disease (AD) – Caused by a number of different strains of a parvovirus that have variable pathogenicity. The infection in mink may be subclinical and of variable duration without adversely impacting animal health/welfare or a chronic, progressive, non-treatable disease that results in death.

Biosecurity – Measures to reduce the risk of transmission of infectious diseases and parasites.

Body Condition Score (BCS) – A numerical system from 1 to 5 indicating the nutritional status and amount of fat an animal has.

Breeder – Term for a mature mink used for breeding purposes.

Circadian rhythm – Characterized by or occurring in approximately 24-hour periods or cycles (i.e. biological activity or function).

Conditioning – Changing feeding or management practices to get mink in optimal body condition for breeding.

Confidence – Measures the minks' degree of comfort with humans; a confident mink will respond more positively to humans.

Controlled Access Point (CAP) – A single point/designated entrance, which enables traffic control and ensures that equipment and procedures are available to implement biosecurity measures (e.g. wheel sprays, etc.).

Controlled Access Zone (CAZ) – A zone around the mink production area that restricts access to visitors, vehicles equipment, and other animals (including wild). A CAZ should be easily identifiable; perimeter fencing of the CAZ improves control. A CAZ may include sheds/housing areas, kitchen areas, supply storage and waste storage.

Enrichment – Efforts aimed at improving the mink's physical and psychological health by including novel objects such as golf balls, plastic chains, plastic tube, hammocks or shelves, or making other pen-related alterations that may increase the complexity of the pen.

False bottom (false floor) – A solid insert (a board or piece of plastic) that is put in a pen at whelping until kits are big enough to move around the pen safely and prevent small kits from falling through the wire.

Fur Chewing/Clipping - The damaging of hair from the point the mink can reach just behind the shoulders to the tip of tail.

Furring - The time of season triggered by shortened daylight hours causing the winter coat to grow

Hospital – A designated area for injured or sick mink.

Juvenile mink – Classified from September 1st of the year they were born until February 1st of the following year.

Kit – Term for a mink from birth to weaning.

Manipulable enrichment – An item such as tubes, balls, chains and other 'toys' to chase, carry or chew.

Minimum floor space – The area of a mink pen which can be used by the mink; it includes shelf/ platform/hammock, but does not include the area of nest box (regardless of type of next box).

Minimum living area – The minimum living area mink have access to, which includes both the pen's minimum floor space and nest box area.

Non-littermates – Juvenile mink from different females (mothers).

Pushing fur - The act of furring when the summer hair is shed as the new winter hair emerges

Quarantine – An area or facility separated from the housing area on a farm that is used to house incoming stock for a period of time to help reduce the risk of introducing new pathogens; may also be used to isolate or segregate animals on farm that are known or suspected to be infected with a transmissible disease.

Restricted Area Zone (RAZ) – An area inside the CAZ that controls access to the mink sheds or areas where mink are housed and where personnel and equipment access is more restricted than it is for the CAZ. The RAZ, an inner biosecurity zone, is sometimes referred to as the production area or restricted area (RA).

Stereotypic behaviour – Repetitive actions that are invariable in form and serve no obvious function.

Stockpeople – All people looking after mink on a farm.

Unconsumed – Feed that remains on the wire after feeding and is not spoiled.

Veterinarian-client-patient relationship (VCPR) – A VCPR exists when all of the following conditions have been met:

- The veterinarian has assumed the responsibility for making professional judgments regarding the health of the animal(s) and the need for medical treatment, and the client has agreed to follow the veterinarian's instructions.
- The veterinarian has sufficient knowledge of the animal(s) to initiate at least a general or preliminary diagnosis of the medical condition of the animal(s). This means that the veterinarian has recently seen and is personally acquainted with the keeping and care of the animal(s) by virtue of an examination of the animal(s) or by medically appropriate and timely visits to the premises where the animal(s) are kept.
- The veterinarian is readily available for follow-up evaluation, or has arranged for emergency coverage, in the event of adverse reactions or failure of the treatment regimen.

Waste feed – Uneaten feed on wire that has spoiled and must be collected and disposed of.

Whelping – The process of giving birth in mink.

SECTION 1: MANAGEMENT

The humane raising of mink is dependent upon the skills, training and integrity of the mink farmer. Prior to placing mink on a commercial mink farm, the farmer:

1.1. Has acquired a thorough understanding/training of the natural life cycle of domestic mink and has knowledge of normal mink behavior, including breeding cycles, whelping and lactation behavior, weaning and separation procedures, growing and furring periods.

1.2. Has a working knowledge or access to the nutritional needs of mink.

1.3. Has facilities to supply and maintain proper housing, a reliable supply of clean drinking water and storage capabilities for quality feed.

1.4. Has protocols in place for the daily recording and treatment of sick or injured mink, the monitoring of death losses, extreme heat, manure management, pest control and euthanasia.

1.5. Assure the welfare of their mink, which includes developing the skills of observation and the management knowledge/training to properly insure quality welfare for the mink, as well as ensuring that employees on the farm are competent, proper trained individuals who have a good understanding of all the farm management protocols.

1.6. Has a copy of the *Standard Guidelines for the Operation of Mink Farms in the United States* present on the farm and the owners have a working knowledge of the document.

1.7. Has developed a site plan of the farm, as described in Section 2, and it is present on the farm.

1.8. Has developed a written entrance biosecurity policy for both farm employees and visitors to the farm.

1.9. Has signage to identify bio-secure areas with directions and/or contact information to instruct visitors.

1.10. The farm employees that are involved with the care of the mink are trained to practice proper animal handling and understand proper animal husbandry. A record must be kept on the farm indicating when each employee was trained and the employee must sign-off that he/she completed the training.

1.11. Has an employee Code of Conduct developed to instruct all employees that any animal abuse that is witnessed by the employee, that employee must notify a supervisor of the witnessed abuse.

SECTION 2: ACCOMMODATION

2.1 SITE

A new mink farm's location must be carefully selected. Due consideration must be given to local environmental conditions, artificial light, foreseeable neighborhood development and subsequent development of the farm. (5) The location must comply with local, state and federal environmental regulations.

2.1.1. A protective fence must be constructed around the perimeter of the area where mink are housed or the buildings housing the animals are completely enclosed to protect the animals from predators and/or disease-carrying wildlife, and to keep unconfined mink from exiting a bio-secure environment. (14)

2.1.2. A site plan of the farm needs to be available at the farm office, showing all sheds and describing the types, number, dimensions, maximum animal densities of the specific pens, date of construction and date of any major repairs of all pens within the specific sheds. See "Site Plan" addendum (Form 2-101).

2.1.3. The farm has a process in place to capture any mink that have escaped from their pens. Live traps must be checked daily

2.1.4. The farm has a copy of the *"Biosecurity Protocols for the Operation of Mink farms in the United States"* and the owner/manager is familiar with its concepts.

2.2 SHEDS

Any building erected to house mink must provide ventilation and at the same time afford protection from the elements.

2.2.1. The sheds are constructed to allow for adjustments to protect against weather extremes.

2.2.2. The farm has developed a written plan to address extreme heat.

2.2.3. The sheds are constructed in a way that allows for light to observe the mink.

2.2.4 The sheds are designed to allow for exposure to natural or artificial light that mimic the needed natural photo period stimulation. (5)

2.2.5. Sheds may be constructed to hold any number of rows, providing air quality and farm manure management protocols are met.

2.2.6. Air quality is measured by determining ammonia levels at the cage level; 25 ppm is a maximum standard acceptable level.(16)

2.2.7. The sheds are designed to keep the rain water off the manure found below the pens.

2.2.8. The areas under the pens must allow the efficient removal of manure and used bedding materials.

2.2.9. The pens that house mink are a minimum of 12 inches above the ground level to allow feces to fall out of the pen.

2.2.10. The alleyways between the pens are wide enough to allow for ease in observing the mink, handling the mink and allow movement of any needed equipment.

2.3 PENS and NESTERS

Mink pens must provide area for the mink to perform natural physical movement and must allow for normal activities such as rest, sleep, grooming, defecation, and, in the case of breeding pens, the rearing of young. (7)

2.3.1. Pens and nesters must be durably constructed to contain the mink securely and prevent animals from injuring themselves or those in adjacent pens.

2.3.2. Whelping pens must have a false floor to support the young kits movement within the pen for the first 20 days after birth.(7)

2.3.3. The arrangement of pens must allow visual and physical inspection of the pen and nester.

2.3.4. In each pen, a fresh water source must be available and in such a position as to permit access by the mink, and inspection and cleaning by the farmer.

2.3.5. Littermates are classified as newborns kits to August 31st.

2.3.6. Juvenile mink are classified from September 1st of the year they were born on February 1st of the following year..

2.3.7. Adult mink are classified as all mink after February 1st of their first year and anytime thereafter.

2.3.8. Litters need to be separated by September 1st and moved to pens that meet the stated density requirements for juvenile mink.

2.3.9. All occupied pens, except whelping pens at whelping through weaning should have one manipulable enrichment. Enrichments need to be durable and pose no health risk to the mink. All farms will need to meet this requirement by 1/1/2023.

All existing pens built prior to 1/1/2019 that meet the pen dimensional and density requirements, as stated in the 2014 Standard Guidelines, will be acceptable for a ten year period (until

12/31/2028) (This means a farm can use any pen that meets the 2014 Fur Commission USA "Standard Guidelines for the Operation of Mink Farms in the United States" requirements, built before 1/1/2019, up until 12/31/2028 (Up to 50% of the existing pen wire can be replaced during that period after 1/1/2019. Nest boxes, feed boards, shelves, hammocks, tubes, water cups and all other components of the pen besides the wire can be replaced anytime at the discretion of the producer.

All whelping pens built prior to 1/1/2019 must have a shelf, hammock or tube installed at an incremental rate of at least 10% per year for all whelping pens in use, starting as of 1/1/2019 (example by 1/1/2020 at least 10% of whelping pens in use will have a shelf, hammock or tube.)

2.4 PEN SIZE & DENSITIES

THE FOLLOWING CRITERIA RELATE TO PENS CONSTRUCTED AFTER 1/1/2019

Minimum height and width dimensions and animal density were established for NEWLY constructed pens after 1/1/2019. SEE PEN CONSTRUCTION TABLE. (These are minimum standards only; with all new pen construction farms should consider the potential in future body size increases and changes in consumer perceptions)

2.4.1 All cage dimensional requirements for new pen construction will be in square inches of floor space.

2.4.2 Living space for pens is defined as a combination of the pen floor area, inside floor dimensions of the nest box and resting area of a shelf, tube or hammock, if required. For wedge type nest boxes, the living space determination is the square inches of the horizontal plane that is parallel to the floor of the cage; calculated 2 inches below the entrance hole of the nester.

2.4.3 All measurements, for all pens, will be made by determining the wire construction dimensions, example 1 x 1 inch, 1 x 1.5 inch…, then counting the spaces to determine the dimension in inches.

2.4.4 Furring pen defined minimum living space is designated for 2 juvenile or 2 adult mink or any combination

2.4.5 Whelping pen defined minimum living space is designated for a female and her litter until August 31st of the year in which the litter was born.

2.4.6 For additional mink in furring and/or whelping pens, 75 square inches is needed for each additional female and 100 square inches is needed for each additional male.

2.4.7 A shelf, tube or hammock must be at least 5 inches wide, 8 inches off the bottom of the

cage.

2.4.8 To qualify as a shelf, tube or hammock, the minimum living space must be at least 60 square inches of resting space but a maximum of 100 square inches can be considered countable living space toward the total cage living space minimum requirements.

2.4.9 If the gap between the end wire of a shelf and the divider is less than the wire space dimension, that distance can be calculated as living space.

2.4.10 The calculation of the living area of a hammock or tube is the maximum diameter times the length in inches.

2.4.11 Whelping pens (litter and female) and multiple juvenile or multiple adult mink pens (furring pens) are required to have a shelf, tube or hammock.[2]

2.4.12 Single female and single male pens do not have a mandatory shelf/tube/hammock requirement and if a shelf, tube or hammock is placed in the pen, it does not count as living space.

2.4.13 Single animal pens that only meet the minimum dimensional requirements can only be used for single animals. The "additional animal" space requirements do not apply. Any pen that houses 2 or more animals must meet the requirements of a "Furring Pen" or "Whelping Pen".

2.4.14 All pens are required to have access to a nest box during conditioning, breeding, gestation, whelping, lactation, furring and pelting. [12 (12)].

2.4.15 Nest boxes must be designed to allow access for all mink in the pen.

2.4.16 Bedding must be available (supplied) in the nest box during conditioning, breeding, gestation, whelping, lactation, furring and pelting. Kits should be denied access to the nest box during the weaning and post-weaning period if habitual defecation within the box is detected. [(12)]

2.4.17 Drop-in nest boxes cannot take up more than 50% of the floor space and the bottom of the nest box must be at least 5 inches above the floor of the pen for the floor space under the nest box to be countable living space.

2.4.18 Jump-up nest boxes and drop-in nest boxes can meet the classification of a shelf.

2.4.19 If a lowered feed strip is engineered into the pen, it must be a minimum of 10 inches above the floor of the pen and not more than 10 inches in depth (referencing front rear of the pen).[(3)]

2.4.20 Lowered feeding strips, feed boards, shelves, tubes, hammocks and/or drop-in boxes do not count against the minimum ceiling height requirement of the pen.

2.4.21 An unencumbered minimum of 1/3 of the overall cage needs to meet the minimum ceiling height requirement.

2.4.22 All pens need some form of enrichment which adds complexity to the pen environment. (jump-up nest box, drop-in nest box, shelf, hammock, tube and/or manipulable enrichment fulfill this requirement) [(2)] [(9)]

2.4.23 NEW PEN CONSTRUCTION TABLE

Pen Density	Minimum Height	Minimum Width	Nest Box Size	Minimum Living Space (Square inches) Floor, Nest Box, Shelf
Single Female	15 Inches	7.5 Inches	45 Sq. Inch Minimum	225 Sq. Inches Minimum (Shelf not included)
Single Male	15 Inches	9 Inches	60 Sq. Inch Minimum	275 Sq. Inches Minimum (Shelf not included)
Female with Litter	15 Inches	12 Inches	80 Sq. Inch Minimum	440 Sq. Inches Minimum(100 sq. inch max countable living space for a shelf)
Two Juvenile	15 Inches	12 Inches	80 Sq. Inch Minimum	440 Sq. Inch Minimum (100 sq. inch max countable living space for a shelf)
More than Two Juvenile	15 Inches	12 Inches	80 Sq. Inch Minimum	75 Sq. Inch additional per female. 100 Sq. Inch additional per Male

The 2014 Guidelines require whelping pens of 4,300 cubic inches, and furring pens of 3,800 cubic inches for the first 2 mink, and 900 cubic inches for each additional mink. (The nesting box volume counts as additional space when attached outside the pen.) The minimum height of all pens will be 12 inches. Pens containing single breeder females must have a minimum width of 6 inches. Pens containing single breeder males must have a minimum width of 7.5 inches. Pens designed for single mink must be a minimum 2,500 cubic inches. Minimum pen dimensions are:

4,300 cubic inch minimum requirement for whelping pens:

Height	Width	Length	Total Cubic Inches
12”	15”	24”	4320 in3
12”	12”	30”	4320 in3
12”	10”	36”	4320 in3

3,800 cubic inch minimum requirement for two furring mink

Height	Width	Length	Total Cubic Inches
12”	15”	22”	3960 in3
12”	12”	27”	3888 in3
12”	10”	32”	3840 in3

2,500 cubic inch minimum requirement for single mink

Height	Width	Length	Total Cubic Inches
12”	10”	24”	2880 in3
12”	8”	28”	2680 in3
12”	6”	36”	2592 in3

SECTION 3: FOOD AND WATER

Mink feed is comprised largely of animal products, animal by-products, cereal, and a mineral/vitamin premix. Producers should develop working relationships with suppliers to ensure incoming products meet the farm's standards for quality. Animal products and by-products are especially susceptible to contamination and spoilage; these products must be handled, tested, and stored appropriately to preserve their quality. Veterinarians, nutritionists and/or technical representatives from nutrition companies can serve as valuable resources. The following criteria (3.1 – 3.3) must be met in order to ensure quality of feed.

3.1 NUTRITION

Mink must be fed a complete diet that fulfills the animals' various nutritional needs, and modified as nutritional requirements of the life stages of the mink change. [(1)(10)(11)]

3.1.1 The farm has a nutritionally balanced ration developed through consultation with a nutritionist or has purchased a fully balanced complete feed.

3.1.2. Analysis of mixed food rations, when needed, needs to be obtained from a qualified laboratory. [(8)(13)]

3.1.3 All new feed ingredients should be tested for nutritional value (Protein, carbohydrates, fat, moisture) at least once, unless standard analysis values are available.

3.1.4 All new feed ingredients are tested for bacterial levels (Plate count) at least once.

3.1.5 The total mixed ration is tested for nutritional value (Protein, carbohydrates, fat, moisture) and bacterial levels (plate count) at least quarterly through the year. (ex. Dec. 1, March 1, June 1, Sept. 1) (not applicable when complete rations are purchased)

3.1.6 Complete dry and/or complete ready-mixed wet foods must be stored and fed according to the manufacturer's instructions.

3.2 FEED STORAGE AND PREPARATION

The collection, storage and preparation of mink food products need to be carried out under sanitary conditions.

3.2.1 Transport vehicles and containers must be constructed to contain the feed products without leakage and designed to allow routine cleaning after use.

3.2.2 When applicable, animal by-products should be store under refrigeration or preserved to promote freshness and maintain nutritional value. [(13)]

3.2.3 The farm has refrigeration and/or freezer capacity to allow for fresh feed storage. [(8)]

3.2.4. Feed preparation machinery should be cleaned and maintained on a regularly sscheduled basis.

3.2.5. Dry foods such as cereals and supplements must be stored under dry conditions

3.2.6 Individuals involved with feed preparation need to be properly trained.

3.3 FEED DISTRIBUTION

The feed is delivered and placed in such a position to allow easy access by the mink.[3]

3.3.1 Feed carts used to deliver wet feed need to be cleaned and maintained on a routine schedule.

3.3.2 Hoppers for dry feed are kept clean and maintained on a routine schedule

3.3.3 Spoiled feed must be removed on a daily basis from the cages and disposed of in accordance with the farm's waste management plan.

3.4 WATERING SYSTEMS

The mink farmer must ensure that clean, fresh water is readily available to the mink at all times.(5)(6)

3.4.1. The farm will test the water for its nutrient content and bacterial content at least once yearly or after any major repair work is done on the system.

3.4.2. The farm needs to have a written back-up plan in place in the event the primary watering system fails.(Equipment break down, power failure, freezing)

3.4.3. The watering system must ensure easy access to drinking water; system must be checked daily to ensure uninterrupted availability.

3.4.4. Where surface water is used as a source, water quality must be monitored.

SECTION 4: HEALTH

The mink farmer must always be aware of the condition of the herd, and be able to recognize the signs of a distressed or sick animal.[6]

4.1. All the mink are observed daily for signs of illness, injury, pain.[6]

4.1.1. The mink farmer will develop a close working relationship with a veterinarian.

4.1.2. The farm needs to have consultation with their veterinarian at least once a year to satisfy the Veterinary-Client-Patient Relationship.

4.2. It is important that mink farmers develop an ability to recognize any abnormalities of behavior, activity, appetite, feces or other indicators of ill health.

4.2.1 All employees that work with the mink must be trained to recognize ill, injured or painful mink.

4.3. The farm should have a protocol in place to genetically select against abnormal behaviors; (ex. fearful mink, stereotypic behavior, fur chewing)

4.4. Sick or injured mink must be treated, or, depending upon the severity of their condition, humanely euthanized.

4.4.1. The farm needs to keep written treatment records individually and/or by group.

4.4.2. The farm needs to keep written records of daily mortalities and euthanized mink.

4.4.3. Unexplained deaths should be investigated by a veterinarian.

4.4.4. The farm will have a system to mark sick or injured mink, or a designated area to house and isolate individually treated mink (hospital area) when practical.

4.4.5. The farm will maintain some basic medicines and supplies to treat basic illnesses and injuries.

4.4.6. If death losses or sick/injured animals increase by 20% over any 2-day period, causes need to be investigated.

4.5. The mink farmer will follow the recommendations of a veterinarian in vaccinating the mink against distemper, botulism, mink viral enteritis and pseudomonas pneumonia.

4.6. It is recommended that mink herds be periodically screened for the Aleutian Disease virus using the CIEP, lateral flow (ELISA), iodine agglutination, or PCR tests.[4]

4.6.1. Where herds of mink are infected with Aleutian Disease virus, the viral load should be controlled by testing, culling of the affected animals, cleaning and use of parvocidal disinfectants, and strict bio-security.

(For detailed recommendations, see *Book 3*: *Biosecurity Protocols for the Operation of Mink Farms in the United States.*)

SECTION 5: ENVIRONMENTAL QUALITY

5.1 SANITATION

The mink farmer must develop an effective hygienic and sanitary program to promote a healthy environment.

5.1.1. Drainage must be ensured: poor drainage can cause sanitation problems and must be corrected.

5.1.2. Mink farm sheds need to be designed to keep the manure protected from rain and

run-off. Manure must be removed regularly from beneath the pens and this area must be kept dry to prevent seepage into groundwater. Regions with high precipitation should address the control of runoff via berms, drains, or other barriers on the ground.

5.1.3. The farm follows a written waste management plan.

5.1.4. The feed preparation buildings and surrounding areas must be kept clean using effective and safe methods.

5.1.5. Pens and nesters must be cleaned regularly, as dictated by the yearly production phase.

5.1.6. The farm has a written pest management plan that addresses the mink housing area and the feed storage and preparation areas. Methods for the control of the fly population in summer months must be employed. Only EPA approved insecticides should be used.

5.2 WATER QUALITY

Mink farms must observe all state and federal laws intended to protect ground and surface water quality.

5.2.1. Mink farmers should work with officials in their jurisdictions to ensure that management practices are observed.

5.2.2. Local and state water quality regulations must be strictly observed in the siting of new mink farms and the expansion of existing farms.

SECTION 6: TRANSPORTATION OF LIVE MINK

Transportation of mink requires special attention to travel crate design, care of mink in transit and, where required, proper documentation.

6.1. The farm has an off-farm written transportation protocol in place.

6.1.1 The design of a traveling crate must take into account the length of time the mink will be in transit and regulations of common carriers involved. Depending on the situation; available food, water and suitable bedding material may be required.

6.1.2. Crates may be made from a variety of materials. Care in construction is essential to assure that the animals cannot escape, injuring themselves, each other or their handlers.

6.1.3. There must be a watertight tray bellow the wire floor of the crate to allow moisture to drain away from the compartment and animals.

6.1.4. Special care must be taken at all times to ensure proper ventilation and protection

against severe weather.

6.1.5. Provision must be made for care in the event of unexpected delays. Arrangements for feeding and watering must be ensured. Supervision during shipment is important.

6.1.6. The shipper and the receiver must agree on the methods of transportation to be used, and ensure that rapid communication be available to them.

Where mink are to be imported, exported or shipped interstate, each relevant country or state's regulations must be investigated, and the necessary permits and health certificates obtained prior to shipment. Consult your veterinarian or a veterinarian operating with the FCUSA Ranch Services program.

6.2. The farm has a written on-farm transportation protocol in place.

6.2.1 Individual mink can be hand carried by supporting and controlling the mink's body, utilizing both hands for a maximum of 2 minutes.

6.2.2. Avoid excessive pressure on the abdomen when carrying the mink, especially pregnant females.

6.2.3. When transport exceeds 2 minutes, individual transport cages will be utilized

6.2.4. The movement of mink should not be done if an extreme heat protocol is in effect

SECTION 7: HARVESTING & EUTHANASIA

Mink farmers must consider the humane death of their animals to be of paramount importance. The term "euthanasia" as used in these Guidelines, describes the process of killing individual mink using recognized, acceptable, humane techniques when medical treatment is unsuccessful or inappropriate.

Efficient means of euthanizing individual mink should be available at all times. Equipment used should be functioning and without defects. Only trained personnel should perform the euthanasia.

Correctly applied, efficient means of euthanizing individual mink include:

- CO > 4 % (pure or from engine)
- CO2 > 80%, lethal injection
- Percussive blow to the head
- Penetrative captive bolt device

- Cervical dislocation
- Firearm with free projectile.

For mink that are killed for pelting (large groups) at the appropriate time of year, accepted euthanasia protocols will be practiced, but "harvesting" will be the term used. The AVMA and Fur Commission USA's Animal Welfare Committee recommend pure, cooled carbon monoxide in cylinders, or cooled and filtered from combustion engines, pumped into a sealed chamber, as the preferred methods. Pure, cooled carbon dioxide, in cylinders, is an alternate. Carbon monoxide and carbon dioxide have been found by research and the AVMA to be practical, reliable, easy to use, and compatible with operational practices on mink ranches.[15]

- The farm has a written euthanasia protocol in the farm office.
- All personnel involved with the harvesting & euthanasia of the mink are trained and have signed–off on understanding the euthanasia protocol.
- When the mink are removed from the chamber, they are checked to ensure death has occurred by accessing the absence of movement, absence of a heartbeat, absence of breathing, and absence of corneal reflex.
- The chamber is purpose built and in good repair.
- In addition to providing a method for the humane death of the mink, the chambers should be mobile, easily cleanable, provide consistent performance, constructed for ease of operation and safety for the operator.

7.1 CARBON MONOXIDE

7.1.1. The chamber must be charged with a minimum of 4% carbon monoxide concentration by volume

7.1.2. Carbon monoxide is a highly toxic gas. Since it has no odor, it must be used only under well-ventilated conditions, and personnel administering it must adhere strictly to a safety practices.

7.1.3 Carbon Monoxide sourced from a specifically adapted internal combustion gasoline engine for the purpose of euthanizing/harvesting mink maybe used provided that the farm has tested the engine at least once every year and previously verified that the gas has been suitably cooled by passing through a water bath, has been sufficiently filtered by passing through a particulate filter, and is free from other components or gases that would prove irritating to the mink.

7.2 CARBON DIOXIDE

Carbon dioxide has the advantage of being less toxic to humans than CO. It may be used in a manner similar to carbon monoxide for mink euthanasia.

7.2.1. The chamber must be charged with a minimum of 80% carbon dioxide by volume by gradual fill.

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