

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

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**Farm Management Records  
Farm Management Protocols  
Health Management Protocols  
Reporting Forms**



## RECORDS AND PROTOCOLS

The following documents are an integral part of the herd certification process. RECORDS and PROTOCOLS are referenced often in the Audit Instrument and their use is included in the scoring in both the *Critical* and *Recommended Criteria* sections.

**RECORDS:** The following pages include record-keeping forms for employee training, farm visitors, veterinarian and other contacts, mortalities, treatment of injury and illness, air & water quality, site and pen descriptions, and more. The forms found here may be used as-is, or as a template to use in developing your own record keeping systems. These records must be kept for a minimum of 30 days, but it is recommended they be kept for at least a year in order to recognize trends and/or anomalies occurring on the ranch.

**PROTOCOLS:** These are for the most part informational and are intended so each farmer can further improve the care and welfare of their mink. A good example is *Form A-101: Herd Health Treatment Protocols*. This is a list of the most common ailments that farmed mink may suffer from, including symptoms, treatments, medications and prevention strategies. Other protocols may be used as-is, or as templates for personalized written management plans (Emergency, Manure management, Biosecurity, Vaccination, Water back-up, etc.).

During the farm Audit, the inspector will ask to review the Records and the various management plans. Please keep these, or a copy of these on the farm site.



## HERD HEALTH TREATMENT PROTOCOLS

The following afflictions are the most commonly found treatable health issues in ranch-raised mink in the United States.

### **MASTITIS**

#### Signs

- firm swollen teats/glands, off feed, lethargy, off-coloured milk, fever, kits doing poorly
- usually an individual animal problem, but can be a herd issue
- usually slowly progressing signs, with abscess formation in the mammary glands
- can in severe cases cause sudden death
- or can see a low-grade infection with poor-doing mother and kits, but teats look normal (sub-clinical) → especially when it's a herd problem

#### Tests

1. milk sample (in sterile container) (to diagnostic lab for culture and sensitivity testing)
2. or killed/dead mother (to diagnostic lab for culture and sensitivity testing)

#### Treatments

- 1) Metacam\*, 5mg/ml injectable
  - a. For pain, fever, and inflammation
  - b. Directions for use: All doses are given subcutaneously, under the skin. Avoid giving to dehydrated animals without sub-q fluids
  - c. Dosing: 0.4 mg/kg once sub-q, can repeat once in 3 days
    - i. Black female breeding (1-1.5kg): 0.25cc
    - ii. Mahogany female breeding (2kg): 0.3cc
- 2) sub-q fluids
  - a. 20 to 30 cc LRS or NaCl under the skin
- 3) Antibiotic choices (choose one)
  - a. Ampicillin
    - i. In feed (only if herd problem): 100 grams/1100 females/day
  - b. Nuflor injectable, 300mg/mL, 50mg/kg, sub-q (under the skin)
    - i. Directions for use:
      1. Small adult mink (black females) (1.5-2kg): 0.3cc, sub-q once, can repeat (only once) in 3 days
      2. Large adult female mink (2-2.5kg): 0.4cc, sub-q once, can repeat (only once) in 3 days
  - c. Baytril injectable, 100 mg/mL or 22.7 mg/mL
    - i. 10mg/female once/day, intramuscular injection, treat for 4 days
- 4) Environmental management/Prevention
  - a. Nest boxes clean and well bedded. Pen and artificial bottom clean and dry.
  - b. Foster out kits
  - c. Mark female to be pelted
- 5) Other
  - a. Dexamethasone 2mg/mL injectable (0.25mg/kg)



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- i. ¼ cc once intramuscular
- ii. must remove kits
- iii. Effectiveness of this treatment is controversial-- try in some females and see if it works on your farm (may get them eating again and help shut down milk production).

### **DYSTOCIA (Difficult birth)**

#### Treatments

- 1) Manual assistance
- 2) Oxytocin 20 USP units/mL, 1/4cc intramuscular, once
- 3) Metacam, 5mg/ml injectable, 0.4mg/kg, under the skin, once
  - a. Black female breeding (1-1.5kg): 0.25cc
  - b. Mahogany female breeding (2kg): 0.3cc

#### Prevention

- 1) Aim for BCS of 3.5 for late gestation

### **METRITIS (difficult birth → uterine infection)**

#### Signs

- individual animal problem but common, usually due to a retained fetus, but a dirty environment at whelping contributes
- Mother: depressed, off feed or decreased consumption, sudden death possible. Kits: doing poorly

#### Tests

- 1) Can send dead/killed mother for necropsy

#### Treatments

- 1) Metacam\*, 5mg/ml injectable
  - a. For pain, fever, and inflammation
  - b. Directions for use: All doses are given subcutaneously, under the skin. Avoid giving to dehydrated animals without sub-q fluids
  - c. Dosing: 0.4mg/kg once sub-q (under the skin)
    - i. Black female breeding (1-1.5kg): 0.25cc
    - ii. Mahogany female breeding (2kg): 0.3cc
- 2) sub-q fluids
  - a. 20cc LRS or NaCl under the skin
- 3) Antibiotic choices (choose one)
  - a. Nuflor injectable, 300mg/mL, 50mg/kg, sub-q (under the skin)
    - i. Directions for use:
      1. Small adult mink (black females) (1.5-2kg): 0.3cc, once sub-q, can repeat (only once) in 3 days
      2. Large adult female mink (2-2.5kg): 0.4cc



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- b. Baytril injectable, 100 mg/mL or 22.7 mg/mL
  - i. 10mg/female once/day, intramuscular injection, for 4 days
- 4) Environmental management
  - a. Nest boxes clean and well bedded. Pen and artificial bottom clean and dry.
  - b. Foster out kits

## **NURSING SICKNESS/NURSING ANEMIA**

### Signs

- late in lactation
- lethargic mother, off feed, dehydrated, losing condition

### Treatments

- 1) sub-q fluids
  - a. 20 to 30cc LRS or NaCl under the skin (sub-q) twice/day
- 2) Antibiotic choices (choose one)
  - a. Penicillin G injectable, 300 000 units/mL, 60 000 IU/kg once/day for 3 days
    - i. Small adult mink (black females) (1.5-2kg): 0.4cc intramuscular once/day for 3 days
    - ii. Large adult female mink (2-2.5kg): 0.5cc intramuscular once/day for 3 days
  - b. Nuflor injectable, 300mg/mL, 50 mg/kg, sub-q (under the skin)
    - i. Small adult mink (black females) (1.5-2kg): 0.3cc, once sub-q, can repeat (only once) in 3 days
    - ii. Large adult female mink (2-2.5kg): 0.4cc, once sub-q, can repeat (only once) in 3 days
- 3) B-vitamin complex injectable, add to the sub-q fluids
- 4) Dexamethasone 2mg/mL injectable (0.25mg/kg)
  - a. ¼ cc once intramuscular
  - b. Effectiveness of this treatment is controversial-- try in some females and see if it works on your farm (may get them eating again)
- 5) Environmental management
  - a. Foster out kits
- 6) Prevention
  - a. Aim for BCS of 3.5 for late gestation
  - b. A shelf or hammock near the nest box the mother can use to escape her kits has been shown to decrease incidence of nursing sickness without negatively affecting kit weights.

## **FATTY LIVER**

### Signs

- More common in implanted mink furring up. Can also be seen in females shortly after whelping or weaning.
- Animal goes off feed for 1-2 days and is found very weak or dead shortly thereafter. A longer course of inappetence and lethargy is also possible. In some cases, sudden death can occur in an apparently normal animal (usually furring season).



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#### Tests

- 1) Necropsy on-farm. Liver is large, tan or yellow, easily broken apart, and greasy. Liver may be ruptured, with hemorrhage.
- 2) Necropsy-send several animals to diagnostic lab.
- 3) Feed analysis, particularly to assess dry matter protein and fat levels.

#### Treatments and Prevention

- 1) Treatment is at the herd level, or aimed at the subset of animals affected (ie. Implanted animals furring up)
- 2) Feed: Adjust %fat below 22% and %protein above 40%
- 3) Feed: Add choline chloride to the feed at 325g/ton of feed. There are several products on the market. A multi-B-vitamin/choline blend would be ideal.
- 4) Environmental management
  - a. In the fall, large fat mink with fatty livers can die from a rupture liver due to rough handling or possibly by catching their bellies on a ledge, such as a small nest-box entrance.
  - b. Reduce stress whenever possible

## **DIARRHEA**

#### Signs

- Can be a few animals or a herd problem
- Can be related to a sudden feed change or other stressor (ie. weather)
- Can be due to viral infection, bacterial infection, or both

#### Tests

- 1) Diagnostic lab: Send multiple (fresh dead) animals for:
  - a. Necropsy
  - b. Bacterial culture and sensitivity testing
  - c. Mink Enteric Viruses (Rota/Corona) test
  - d. Mink Enteritis Virus (Parvo) test
  - e. Parasitology (coccidiosis)
- 2) Test feed equipment (send swabs for culture)
- 3) Test feed (especially if herd problem): coliform and e.coli counts, mycotoxins, heavy metals
- 4) Test water (especially if herd problem): chlorination, coliform and e.coli counts, heavy metals

#### Treatments

- 1) Environmental management
  - a. Review feed handling practices and ingredient sourcing
  - b. Thoroughly clean/disinfect all feed equipment
  - c. Review vaccine handling and vaccination protocols (Biocom-P)
- 2) Antibiotics (individual treatment or in the feed)



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### **STICKY KITS/KIT DIARRHEA**

#### Signs

- Can be a few animals or a herd problem.
- Can be due to viral infection, bacterial infection, or both

#### Tests

- 1) Diagnostic lab: Send multiple (fresh dead) kits for:
  - a. Necropsy
  - b. Bacterial culture and sensitivity testing
  - c. Mink Enteric Viruses (Rota/Corona) test
  - d. Mink Enteritis Virus (Parvo) test
- 2) Test feed (especially if herd problem): coliform and e.coli counts,
- 3) Test feed equipment (herd problem): send swabs for culture

#### Treatments

- 1) Environmental management to prevent spread
  - a. Keep nest box and false bottoms clean and dry
  - b. Use dedicated equipment for cleaning affected pens and different dedicated equipment for cleaning unaffected pens.
  - c. Wash kits and dry in incubator
- 2) Hydration with warm LRS fluid injection, sub-q (under the skin of the neck)
  - a. 8 to 10% of the kit's body weight can be given in mL (ie) a 50 gram kit receives 4 to 5mL fluid. Can repeat in 24 hours.
- 3) Antibiotic choices (choose one)
  - a. Incidence low
    - i. According to culture and sensitivity results
  - b. Herd problem or incidence high
    - i. Gallimycin (erythromycin): 200g erythromycin/tonne wet feed
    - ii. Neomycin (at 200g/tonne wet feed) and penicillin G 500 000 000 IU/lb (at 6 lbs/ton wet feed).
    - iii. SMZ (Trimethoprin 160mg-Sulfamethoxazole 800mg) boluses: 1 bolus/17 females

#### Prevention

- 1) Environmental management
  - a. Keep nest boxes and false bottoms clean
  - b. Review feed handling practices
  - c. Thoroughly clean/disinfect all feed equipment

### **PNEUMONIA**

#### Signs

- coughing, sneezing, bloody nose +/- mouth, off feed, sudden death
- can be individual or herd problem
- usually in spring or fall, animals pushing fur



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#### Tests

- 1) Diagnostic: Send multiple (fresh dead) mink for:
  - a. Necropsy
  - b. Bacterial culture and sensitivity testing
  - c. Mink (Canine) distemper virus
  - d. Swine and avian influenza virus
- 2) Test feed (especially if herd problem): coliform and e.coli counts
- 3) Test water (e.coli, pseudomonas, chlorination)

#### Treatments

- 1) Antibiotic choices (choose one)
  - a. Incidence low (consult culture and sensitivity results)
    - i. Nuflor injectable, 300mg/mL, 50mg/kg, sub-q (under the skin)
    - ii. Directions for use:
      1. Black female breeding (1-1.5kg): 0.25cc sub-q (under the skin), repeat once in 3 days.
      2. Black male breeding (2.5kg): 0.4cc
      3. Black female pelting (2-2.5kg): 0.4cc
      4. Black male pelting (3.5-4kg): 0.7cc
      5. Mahogany female breeding (2kg): 0.3cc
      6. Mahogany male breeding (3kg): 0.5cc
      7. Mahogany female pelting (3kg): 0.5cc
      8. Mahogany male pelting (4.5kg): 0.75cc sub-q (under the skin), repeat once in 3 days.
  - b. Herd problem or incidence high (consult culture and sensitivity results)
    - i. (In feed) Amoxicillin 500mg capsule/11 adult females/day
    - ii. (In feed) SMZ (Trimethoprin 160mg-Sulfamethoxazole 800mg) boluses: 1 bolus/17 females
- 2) Metacam\*, 5mg/ml injectable
  - a. For pain, fever, and inflammation
  - b. Directions for use: All doses are given subcutaneously, under the skin. Avoid giving to dehydrated animals without sub-q fluids
  - c. Dosing: 0.4mg/kg once sub-q (under the skin)
    - i. Black female breeding (1-1.5kg): 0.25cc
    - ii. Black male breeding (2.5kg): 0.4cc
    - iii. Black female pelting (2-2.5kg): 0.4cc
    - iv. Black male pelting (3.5-4kg): 0.7cc
    - v. Mahogany female breeding (2kg): 0.3cc
    - vi. Mahogany male breeding (3kg): 0.5cc
    - vii. Mahogany female pelting (3kg): 0.5cc
    - viii. Mahogany male pelting (4.5kg): 0.75cc
    - ix. Juvenile 10 weeks (1 kg): 0.08cc
    - x. Juvenile 8 weeks (0.5kg): 0.04cc
    - xi. Juvenile 4 weeks (0.25 kg): 0.02cc





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#### Prevention

- 1) Routine feed and water testing
- 2) Feed handling and sanitation protocols
- 3) Reduce stress (follow Guidelines on pen densities etc)

#### **PUSSY LUNG**

##### Signs

- Stop eating, lose condition over weeks-months, laboured shallow breathing, bloody nose, coughing, death
- Mostly blue colour phase mink
- Can be individual or herd problem
- Coincides with stressful times (temperature fluctuations, pushing fur)

##### Tests

- 1) Diagnostic lab: Send fresh dead mink for necropsy (can also necropsy on farm)

##### Treatments

- 1) Antibiotics not effective as treatment for individual mink showing signs of illness.
- 2) If farm has yearly occurrence, start treating with antibiotic in the feed for affected sheds when signs first appear.
  - a. SMZ boluses (Trimethoprim 160mg/Sulfamethoxazole 800mg) (1 bolus/17 animals) for 10 days. May reduce signs for a few weeks. Repeat as signs recur.

##### Prevention

- 1) Make sure feed is good quality without bone spicules and with low bacterial counts. Routinely send feed for culture/plate counts (whenever a new feed product is used)(once/week if mortalities are up). Culture water at least twice/year.
- 2) Designate as pelters any blue mink that have had abscesses, infected teeth, mastitis, or skin infections.
- 3) Avoid high stocking density and course bedding.
- 4) Rotating the sheds where the blue mink are kept may help in some cases.
- 5) Predisposing factor is probably a deficient immune system (genetic).

#### **BOILS/ABSCESSES**

##### Signs

- Swollen area, fluid filled or draining pus

##### Tests

- 1) Especially if animals not responding to therapy, send to diagnostic lab for bacterial culture and sensitivity

##### Treatment

- 1) Separate affected animal out.



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- 2) Break abscesses so they can drain and flush with 0.3% hydrogen peroxide(1 to 10 dilution with water)
- 3) Clean nest box litter and inspect environment for sharp edges that could cause injury.
- 4) Metacam, 5mg/ml injectable
  - a. For pain, fever, and inflammation
  - b. Directions for use: All doses are given subcutaneously, under the skin. Avoid giving to dehydrated animals without sub-q fluids
  - c. Dosing: 0.4mg/kg once sub-q (under the skin)
    - i. Black female breeding (1-1.5kg): 0.25cc
    - ii. Black male breeding (2.5kg): 0.4cc
    - iii. Black female pelting (2-2.5kg): 0.4cc
    - iv. Black male pelting (3.5-4kg): 0.7cc
    - v. Mahogany female breeding (2kg): 0.3cc
    - vi. Mahogany male breeding (3kg): 0.5cc
    - vii. Mahogany female pelting (3kg): 0.5cc
    - viii. Mahogany male pelting (4.5kg): 0.75cc
    - ix. Juvenile 10 weeks (1 kg): 0.08cc
    - x. Juvenile 8 weeks (0.5kg): 0.04cc
    - xi. Juvenile 4 weeks (0.25 kg): 0.02cc
- 5) Antibiotic choices:
  - a. Individuals:
    - i. Penicillin G injectable (300 000 units/mL): 60 000 IU/kg 1-2 times/day for 7 days
      1. Black female breeding (1-1.5kg): 0.3 cc IM (intra-muscular) every 1-2 times/day for 7 days
      2. Black male breeding (2.5kg): 0.5 cc
      3. Black female pelting (2-2.5kg): 0.5 cc
      4. Black male pelting (3.5-4kg): 0.8 cc
      5. Mahogany female breeding (2kg): 0.4 cc
      6. Mahogany male breeding (3kg): 0.6 cc
      7. Mahogany female pelting (3kg): 0.6 cc
      8. Mahogany male pelting (4.5kg): 0.9 cc
    - ii. Nuflor injectable, 300mg/mL, 50mg/kg, sub-q (under the skin) (better choice than penicillin)
      1. Black female breeding (1-1.5kg): 0.25cc sub-q (under the skin), repeat once in 3 days.
      2. Black male breeding (2.5kg): 0.4cc
      3. Black female pelting (2-2.5kg): 0.4cc
      4. Black male pelting (3.5-4kg): 0.7cc
      5. Mahogany female breeding (2kg): 0.3cc
      6. Mahogany male breeding (3kg): 0.5cc
      7. Mahogany female pelting (3kg): 0.5cc
      8. Mahogany male pelting (4.5kg): 0.75cc sub-q (under the skin), repeat once in 3 days.
  - b. Herd problem:
    - i. Gallimycin (erythromycin, 65 gr/packet)
      1. 200 grams/tonne of wet feed

#### Prevention

- 1) Try to not disturb mothers shortly after birthing
- 2) Clean nest boxes and pens, clear of sharp edges



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- 3) Stocking density up to Guidelines
- 4) House siblings together
- 5) Provide manipulable enrichments
- 6) Mark for pelting affected animals

## **BITE WOUNDS AND LACERATIONS (NOT ABSCESSSES)**

### Tests

- Send mortalities to Diagnostic lab for necropsy (underlying reason animal did not recover?), and culture and sensitivity testing (guides antibiotic treatment for other animals)

### Treatment

#### 1) Antibiotics (choose one)

##### a. Individuals

##### i. Penicillin G injectable (300 000 units/mL): 60 000 IU/kg 1-2 times/day for 7 days

1. Black female breeding (1-1.5kg): 0.3 cc IM (intra-muscular) every 1-2 times/day for 7 days
2. Black male breeding (2.5kg): 0.5 cc
3. Black female pelting (2-2.5kg): 0.5 cc
4. Black male pelting (3.5-4kg): 0.8 cc
5. Mahogany female breeding (2kg): 0.4 cc
6. Mahogany male breeding (3kg): 0.6 cc
7. Mahogany female pelting (3kg): 0.6 cc
8. Mahogany male pelting (4.5kg): 0.9 cc

##### i. Nuflor injectable, 300mg/mL, 50mg/kg, sub-q (under the skin)

1. Black female breeding (1-1.5kg): 0.25cc sub-q (under the skin), repeat once in 3 days.
2. Black male breeding (2.5kg): 0.4cc
3. Black female pelting (2-2.5kg): 0.4cc
4. Black male pelting (3.5-4kg): 0.7cc
5. Mahogany female breeding (2kg): 0.3cc
6. Mahogany male breeding (3kg): 0.5cc
7. Mahogany female pelting (3kg): 0.5cc
8. Mahogany male pelting (4.5kg): 0.75cc sub-q (under the skin), repeat once in 3 days.

#### 2) Metacam\*, 5mg/ml injectable

##### a. For pain, fever, and inflammation

##### b. Directions for use: All doses are given subcutaneously, under the skin.

##### c. Dosing: 0.4 mg/kg once sub-q, can repeat once in 3 days

- i. Black female breeding (1-1.5kg): 0.25cc
- ii. Black male breeding (2.5kg): 0.4cc
- iii. Black female pelting (2-2.5kg): 0.4cc
- iv. Black male pelting (3.5-4kg): 0.7cc
- v. Mahogany female breeding (2kg): 0.3cc
- vi. Mahogany male breeding (3kg): 0.5cc
- vii. Mahogany female pelting (3kg): 0.5cc
- viii. Mahogany male pelting (4.5kg): 0.75cc
- ix. Juvenile 10 weeks (1 kg): 0.08cc



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- x. Juvenile 8 weeks (0.5kg): 0.04cc
  - xi. Juvenile 4 weeks (0.25 kg): 0.02cc
- 3) Prevention
- a. Clean nest boxes and pens, clear of sharp edges
  - b. Stocking density up to Code
  - c. House siblings together
  - d. Provide manipulable enrichments
  - e. Prevent escapes (maintenance, employee training)

## **PLUMB BLADDER (CYSTITIS) AND BLADDER STONES**

### Signs

- Urinary incontinence, urine staining of underfur
- Death

### Tests

- 1) Necropsy on-farm. Bladder may be purple and thickened. Stones can be seen in kidneys, bladder, or urethra.
- 2) Necropsy-send several animals to diagnostic lab.
  - a. Bacterial culture and sensitivity to advise antibiotic treatment plan

### Treatment

- 1) Antibiotic choices (choose one):
  - a. Individuals
    - i. Trimethoprim-sulfa (better choice than penicillin but cannot be given to pregnant females):
      1. In feed: SMZ (Trimethoprim 160mg-Sulfamethoxazole 800mg) boluses: sprinkle on individual's feed once/day for 7-14 days. One bolus doses 17 animals (about 60mg product /animal/day)
      2. In feed (liquid): Sulfatrim (Trimethoprim 8 mg/mL and Sulfamethoxazole 40 mg/mL oral suspension)
        - a. Black female breeding (1-1.5kg): 2cc once/day in feed for 7-14 days
        - b. Black male breeding (2.5kg): 3cc once/day in feed for 7-14 days
        - c. Black female pelting (2-2.5kg): 3cc once/day in feed for 7-14 days
        - d. Black male pelting (3.5-4kg): 5cc once/day in feed for 7-14 days
        - e. Mahogany female breeding (2kg): 2.5cc once/day in feed for 7-14 days
        - f. Mahogany male breeding (3kg): 3.75cc once/day in feed for 7-14 days
        - g. Mahogany female pelting (3kg): 3.75cc once/day in feed for 7-14 days
        - h. Mahogany male pelting (4.5kg): 5.5cc once/day in feed for 7-14 days
    - ii. Penicillin G injectable (300 000 units/mL): 60 000 IU/kg 1-2 times/day for 7 days
      1. Black female breeding (1-1.5kg): 0.3 cc IM (intra-muscular) every 1-2 times/day for 7 days
      2. Black male breeding (2.5kg): 0.5 cc



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3. Black female pelting (2-2.5kg): 0.5 cc
  4. Black male pelting (3.5-4kg): 0.8 cc
  5. Mahogany female breeding (2kg): 0.4 cc
  6. Mahogany male breeding (3kg): 0.6 cc
  7. Mahogany female pelting (3kg): 0.6 cc
  8. Mahogany male pelting (4.5kg): 0.9 cc
- b. Herd problem (choose one):
- i. SMZ (Trimethoprin 160mg-Sulfamethoxazole 800mg) boluses: 1 bolus/17 animals
    1. Better choice than penicillin
    2. But cannot feed to pregnant females
  - ii. Penicillin G 500 000 000 IU/lb (at 6 lbs/ton wet feed).

#### Prevention

- 1) pH test feed on farm. Feed pH should be about 5.3, and urine pH of the mink below 6.
- 2) Increase acid in the diet to achieve a pH of 5.3
- 3) Lower ash and magnesium content in feed (in consultation with a nutritionist)
- 4) Prevent animals from becoming too obese (assess if problem is disproportionately affecting large animals pushing fur.)
- 5) Prevent dehydration in hot weather by cooling the mink (mistifiers, hoses etc). Fresh potable water available at all times.
- 6) Increase salt content (to 0.5-2% wet weight)
- 7) Submit feed and water samples for bacteria counts in hot weather. Collect feed samples from cage-top.
- 8) Routine flushing with antibiotics in the feed is not recommended as it can create resistant bacteria

#### **WET BELLY**

##### Signs

- The fur around the penis of males is stained and appears wet, but there are no problems in the bladder or kidneys. Genetic issue.

##### Tests

- 1) Necropsy to rule out bladder, kidney, or other problems

##### Treatment/Prevention

- 1) Feed restriction mid-October to 75% of free-choice level reduces incidence. Diets lower in fat and with more calcium than phosphorous can help to prevent.
- 2) Pelt these animals. Do not breed males that have sired litters with this condition.

#### **CRUSTY EYES, NOSE, EARS, OR FEET**

##### Tests

- 1) Send for necropsy at diagnostic lab



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- a. Test for canine distemper virus
- 2) Review diet with nutritionist with particular attention paid to iron, biotin, vitamin A, and zinc levels

#### Treatment

- 1) Will depend on test results

### **INFLUENZA (AVIAN OR SWINE)**

#### Signs

- Coughing, sneezing. Low mortality, moves through farm quickly
- Can turn into bacterial pneumonias
- Higher mortality rate for kits (30%)

#### Tests

- 1) Send multiple animals to diagnostic lab for:
  - a. Necropsy
  - b. +/- bacterial culture and sensitivity
  - c. +/- virus serology or isolation (avian and swine influenza, canine distemper)

#### Treatments

- 1) Supportive care
  - a. Separate sick animals and monitor
  - b. If dehydrated, not drinking, give 10-20cc fluid injection (NaCl or LRS) under the skin.
  - c. Metacam\*
    - i. For pain, fever, and inflammation
    - ii. Directions for use: All doses are given subcutaneously, under the skin.
    - iii. Dosing: 0.4 mg/kg once sub-q, can repeat once in 3 days
      1. Black female breeding (1-1.5kg): 0.25cc
      2. Black male breeding (2.5kg): 0.4cc
      3. Black female pelting (2-2.5kg): 0.4cc
      4. Black male pelting (3.5-4kg): 0.7cc
      5. Mahogany female breeding (2kg): 0.3cc
      6. Mahogany male breeding (3kg): 0.5cc
      7. Mahogany female pelting (3kg): 0.5cc
      8. Mahogany male pelting (4.5kg): 0.75cc
      9. Juvenile 10 weeks (1 kg): 0.08cc
      10. Juvenile 8 weeks (0.5kg): 0.04cc
      11. Juvenile 4 weeks (0.25 kg): 0.02cc
- 2) Antibiotics
  - a. If progresses to secondary bacterial pneumonia
  - b. See pneumonia section

#### Prevention

- 1) Biosecurity



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- a. Bird control; reduce/prevent wild bird contact with feed and mink
- 2) Reduce stress (cage design and stocking density up to code)
- 3) Don't feed raw pork lung

## **FUR CLIPS**

### Tests

- 1) Feed analysis and consult with nutritionist and veterinarian
  - a. Biotin, selenium, copper, cobalt, manganese deficiencies may all contribute

### Treatment

- 1) Reduce stress
  - a. Increase feed, increase # feedings/day

### Prevention

- 1) Reduce stress
  - a. Cage design and stocking density up to code
  - b. Body conditioning in breeders:
    - i. If possible, use a conditioning diet with low nutrient density (low protein and fat, higher carbohydrate and fibre) rather than restrictive feeding (decreased volume)
    - ii. Select new breeders as early as possible
      1. If select based on production rather than fur quality, can select earlier (November).

**\*Metacam** is a trade name for meloxicam. Meloxicam is a non-steroidal anti-inflammatory drug



## **KIT FOSTERING PROTOCOL**

*This may be used as-is, or as an example which ranchers can use to develop their own protocol*

- Females with litters greater than 8, the extra kits should be fostered; if possible, to other females with less than 6 kits.(This can depend on color)
- Females that are struggling to maintain growth in their kits and/or are not demonstrating good mothering behavior; those kits should be fostered to another litter. Where appropriate, 1 or 2 kits can be left with the original female.
- If a female becomes sick, her kits should be fostered to another litter or depending on age moved to the kit hospital.
- Fostered kits should be moved into litters of the same size kits, if possible.
- Kits that are 21 days old or older can be moved directly into a kit hospital.
- For late litters that are having problems; foster or wean all the kits from a female with an early litter and give her the whole litter from the sick late female.





## **PERSONNEL TRAINING TO RECOGNIZE NORMAL AND ABNORMAL BEHAVIOR AND TREAT ILLNESS AND INJURY**

All the personnel involved with working with-in the mink yard should have a general knowledge of mink health and wellbeing. If they observe a mink that is not conforming to normal appearances, the cage should be marked so corrective action can be taken or the appropriate people can be notified. Specific personnel that are directly involved with the mink on a daily basis need to be instructed on normal mink behavior and the signs that a mink is not in a normal state of health.

For the personnel directly involved with the mink, these instructions should first include a discussion on what is normal behavior, activity and appearance of a mink for each specific time of year and examples should be given by video and/or cage side example.

Examples descriptions for normal mink are:

1. Alert and active; this can be influenced by ambient temperature and feeding schedule.
2. Attentive and inquisitive when approached
3. Move freely without restraint
4. They are consuming feed on a daily basis and in the same relationship as their neighbors
5. They are usually not vocalizing
6. They are in appropriate body condition for the time of year
7. The manure is consistent in form and color in relationship neighboring mink

The specific personnel should then be instructed on the signs of illness with any of the following: verbal explanation, pictures, videos or direct cage side examples.

An abnormal mink, whose cages should be mark for further attention, may show clinical signs of illness by :

- Off feed, not consuming the appropriate amounts of feed daily
- Depression/inactivity
- Diarrhea, runny and/or off colored manure
- Coughing, sneezing, panting
- Discharge from eyes or mouth(except right after bedding)
- Swelling with or without drainage
- Bloody vaginal discharge
- Vomiting
- Seizures



- Lameness
- Weight loss (compared to their neighbors)
- Skin lesions, crusty and scaly areas
- Injuries; bite wounds, chewing wounds, lacerations
- Sustained vocalization

For any mink that is deemed to be abnormal, a system should be in place to “mark” that mink’s cage and/or record the cage number so a designated person can come back and evaluate the mink and treat if necessary.

Specific treatment protocols should be written and in place for the personnel to follow for specific illnesses or injuries. These treatments should include the medications to be used, the amount to be used, the time frame to use the medication and the time frame for the expected outcome. These treatment protocols should be discussed and developed in consultation with the farm’s veterinarian.

An example would be:

**Clinical signs:** Off feed, coughing, depression, discharge from nose in only a few mink in each shed

**Diagnosis:** Pneumonia, individual animal problem

**Treatment:** #1 for Pneumonia;

- Specific antibiotic to be used
- Amount to be used for type of mink (male, female, kit, adult)
- How many times per day the treatment should be given
- Time frame to treat the animal (how many days)
- Expected results or response to be seen after treatment is completed; if results are not seen, how to proceed. Try different treatment protocol (ex. treatment #2) or euthanize.

Post mortem examinations should be performed on a routine basis, by either experienced farm personnel or the farm veterinarian.





## **SITE PLAN**

The Site Plan must include the following:

- 1) All sheds on the farm are represented on the Site Plan
  - a. The shed “map” can be hand written, computer generated or aerial photo
  - b. All sheds need to have a specific designation (i.e. name, number, letter)
  
- 2) Description of the cages in each shed (see Pen Description Form.)
  - a. Types of cages; whelping, furring, single female, single male with dimensions.
  - b. Number of each type of pen in each shed
  - c. Nest box type used for each specific pen type described (front mounted, jump-up, drop-in, wedge)
  - d. Floor space dimension of nest box used with specific pen type.
  - e. If a shelf, hammock or tube is present in the specific pen
  - f. Allowable animal densities for each type of pen
  - g. Date the pens were constructed (estimated date of construction is OK if pen built before January 1<sup>st</sup> 2019)
  - h. Date and description of any major repairs (done after January 1, 2019)
  
- 3) Describe and label perimeter fencing and/or totally enclosed sheds
- 4) Describe or denote entrance areas (gates)
- 5) Describe or denote other outlying buildings



## **TRAINING DECLARATION FOR FARM OWNERS/MANAGERS**

Our farm \_\_\_\_\_ is committed to responsible farm animal care and handling. All animals in our care deserve to be healthy and well cared for.

I acknowledge that:

- ✓ I have read and I am familiar with the *Standard Guidelines for the Operation of Mink Farms in the United States*
- ✓ I have read the *Biosecurity Protocols for the Operation of Mink Farms*
- ✓ I am trained and competent in all aspects of mink care and husbandry.
- ✓ I am committed to an annual training review with my employees and a continuous evaluation of their performance

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

Signature: \_\_\_\_\_

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



## EMPLOYEE CODE OF CONDUCT

We, at \_\_\_\_\_, are committed to responsible farm animal care and handling. This means that animals in our care deserve to be healthy and well cared for.

*Every person who handles or comes into contact with an animal on our farm is required to support our core objective of responsible farm animal care and handling.* One of the demonstrations of that support is through the review and signing of this Code of Conduct agreement.

I, \_\_\_\_\_, acknowledge and agree to adhere to the following practices while working at \_\_\_\_\_:

- I will adhere to all farm management protocols and biosecurity measures.
- I will handle and treat all animals with care and respect.
- I understand and acknowledge that willful neglect, mishandling or abuse of animals is not tolerated at this farm and will be subject to immediate discipline.
- If I witness or receive any information that alleges that an animal on the property has been mistreated or mishandled, I will **immediately** report that information to a supervisor, so that the situation can be addressed.
- I will catch and handle animals as I have been instructed
- I am responsible for understanding the basic requirements of animals; including: feed, water, extreme heat/cold and ventilation and will notify the manager or supervisor if any of these basic needs are not being met.
- I will follow farm protocols if I observe an injured or sick animal.
- I acknowledge that euthanasia of animals is to be performed only by trained persons



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- I will not record and/or post images or sounds via camera, video or other recording equipment, including cell phones, on the farm premises unless I have received authorization permission from my supervisor. I understand that I will be subject to dismissal and/or litigation for any photos or recordings taken on the farm without permission.
- I agree that I will not disclose any confidential information about the farm that I may learn or have access to, to any person or organization.

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Witnessed by (Name and title): \_\_\_\_\_

Signature: \_\_\_\_\_







### EMPLOYEE TRAINING RECORD

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

Training Completed (Farm Task)	Date	Initial*	
		Employee	Supervisor
Mink Handling			
Recognize abnormal behavior and procedure for action			
Recognize illness and injury and procedure for action			
Euthanasia protocol and safety procedures			
Trained to operate equipment needed for the task hired for.			
Trained in appropriate management protocols needed for their tasks.			

*\* Must be initialed by BOTH worker and training supervisor to confirm that competency in the task has been shown and it is satisfactory.*







## EMERGENCY PLAN

For these purposes, an actual farm emergency situation would be in the event of a mass animal release and resulting mortality event. This could occur as a result of an intentional release or an extreme weather related event (tornado, flood, etc.)

It is vital that each mink farmer know what to do, to prevent or minimize the damage in case of an emergency. Disaster recovery should be a major consideration in any over-all security plan. “Hope for the Best, Plan for the Worst”

The first priority is always the safety of you and your family. In the case of an intentional release, and you believe the perpetrators may still be on the property, call 911 immediately. If you are sure the attackers have fled, your first priority should then be to secure your perimeter and save the animals. In the event of an extreme weather emergency, personal safety should also be considered before addressing the mink. Be sure you have the following items prepared and readily available on site:

- Phone Tree
- Bailing wire and/or chicken wire and zip ties
- Nets
- Handling Gloves
- Working Flashlights
- Radios
- Large containers (trash cans or barrels) to collect the animals
- Traps

We also recommend that piles of bedding material be located near the perimeter or in the yard, as many released mink will burrow into those. Additionally, start up the feed carts near the fence as the animals will be attracted to the sound. Have a plan to quickly close perimeter fencing in the event of an attack.

Emergency Protocol.

1. Call 911 or local law enforcement agency (see above), then the primary contact on your phone tree. That person should then contact nearby farmers and neighbors to come help with securing the animals. Phone trees do not need to be extensive or complicated. Key players need to be included in the recovery effort as soon as possible and these are the first names included in phone tree list. Include Fur Commission USA on your list of primary contacts. Many times multiple events may occur in a short time period and warning other ranchers is critical.
2. Secure the perimeter. Use the bailing/chicken wire to temporarily repair holes created in fencing and gates to control access to the mink yard, preventing any further mink from breaching the perimeter.



3. Employees and/or family members should have designated areas they are responsible for securing. This is a team effort, and the more efficient you can be the more any damage will be limited.
4. Designate a family member or employee to coordinate and hand out equipment (nets, gloves, etc.) to volunteer helpers as they arrive.
5. Designate a trusted neighbor or fellow mink farmer to represent the farmer if media arrives before a prepared representative has made contact. The rancher should **NOT ADDRESS THE MEDIA** in this situation. Emotions are running high and the rancher should focus on animal rescue.



### EMERGENCY CONTACT INFORMATION

If you believe trespassers are on your property, or the safety of you or your family is threatened;

**CALL 9-1-1**

	<i>Name</i>	<i>Phone</i>
<b>Local Law Enforcement</b>	_____	_____
<b>Fire Department</b>	_____	_____
<b>Farm Owner/Manager</b>	_____	_____
<b>Neighbors</b>	_____	_____
	_____	_____
	_____	_____
<b>Mink Ranchers</b>	_____	_____
	_____	_____
<b>Power Company</b>	_____	_____
<b>Veterinarian</b>	_____	_____
<b>Electrician</b>	_____	_____
<b>Refrigeration Repair</b>	_____	_____
<b>Fur Commission USA</b>	<u>Michael Whelan</u>	<u>541-595-8568</u>



## ANIMAL ABUSE POLICY

As animal caretakers, all employees of (farm name) \_\_\_\_\_ and all individuals holding contracts with (farm name) \_\_\_\_\_ have a moral and ethical obligation to provide humane treatment to animals in their care. Willful abuse, cruelty and/or neglect are unacceptable and will not be tolerated. Animal abuse includes but is not limited to:

- Malicious hitting, kicking or beating of animals
- Failure to provide food, water or minimal care to animals

If you are unsure about what constitutes correct and humane animal care, it is your responsibility to seek assistance and guidance from a supervisor.

If a willful act of abuse, cruelty or neglect is observed, the observer should immediately report the incident to the farm manager, the production manager or the farm veterinarian within 48 hours of the incident.

Any individual who 1) Is found to have committed a willful act of abuse, cruelty or neglect, or 2) Witnesses an act of animal abuse cruelty of neglect and fails to report the incident as outlined, will be subject to disciplinary action which may include termination and/or criminal prosecution.

I acknowledge that I have read and I agree with the (farm name) \_\_\_\_\_ animal welfare policy as outlined above.

**Employee Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Printed Name** \_\_\_\_\_ **Witness** \_\_\_\_\_



## PROTOCOLS FOR THE TRAINING OF STOCK PEOPLE FOR MINK HANDLING AND HUSBANDRY

### Objectives of this protocol should include:

- Stock people should be properly trained to complete the tasks they are responsible for on the farm. Not all farm employees need to be trained for all farm tasks.
- Employees that work with the mink, stock people, should be trained in the humane care of mink.
- Farmers should maintain documentation relating to the training of stock people. This should include a written confirmation of training signed by both the employee (s) and employer.

Training may include verbal explanation, videos, demonstrations, images, etc.

### All new stock people should be trained to properly catch and handle mink in accordance with the Standard Guidelines.

Stock people should handle the mink in a manner that minimizes stress; the catching and handling of different age group need to be specifically addressed. Stock people are required to handle the mink of all ages with respect, staying calm even when the mink are not cooperating.

### Kits: this is the most diverse group do to their rapid growth.

1. **Pre-Separation Kits:** as minimal handling as possibly, while trying not to disturb the female. Individual kits or whole litters can be picked up by hand for individual evaluation by supporting the entire animal; the female may be encouraged to leave the nest and blocked out into the pen while the kits are being examined or the female may be moved slightly off the nest and a pencil or similar device used to manipulate the kits in the nest for evaluation. Reasons for handling the newborn kits; counting kits, looking for tangled kits, evaluating health, farming extra or smaller kits to another litter of like age or size, addressing nest and/or bedding issues, poor mothering, cage repair and whelping problems.
2. **Post separation kits:** Can be caught by grasping the entire body, by a single rear leg or by the base of the tail when appropriate. The body can then be supported by the other hand or rested on the cage or nest box for evaluation, vaccination or treatment.
3. **Juveniles:** can be caught in a calm and controlled manner by grasping the chest area or base of the tail. The mink can then be removed from the cage and rested on the top of the cage and grasp by the back of the neck to stabilize the mink for evaluation. The mink can be carried by controlling the base of the tail for short distances, while supporting the body of the mink when movement is further. If automated restraint equipment is utilized, the operator should follow manufacturer's instructions. When appropriate a transport cage





should be utilized when moving mink between sheds. Reasons for handling juveniles include; examination/treatment, vaccinating, separating, weighing and measuring, grading and euthanasia.

- Avoid pressure on the abdomen when handling mink, especially with pregnant females
- Nets should be available for catching any mink that are loose in the sheds
- Check box/cage traps used to catch loose mink on a daily basis, traps should be placed in shaded areas

**Stock people should be trained to look after the mink's basic needs.**

- Feed the mink according to farm manager's direction, which is related to the season and minks' physiological needs
- Check the watering system daily to ensure adequate water is available and that system is functioning correctly
- Bed the mink (type, amount) according to season and managers directions
- Identify signs of illness/injury/pain to determine when a mink requires medical attention and act accordingly.

**Stock people should be trained to care for mink during the different seasons:**

How to care for mink during the breeding and gestation season:

- Carefully observe mating pairs and promptly separate if overly aggressive behavior occurs.
- Proper care should be used in separating mating pairs if needed.
- Increasing the feed allowance may temper over-aggressive behavior.
- Mink should be monitored for injuries associated with breeding behavior and then treated and recorded.
- If artificial lighting is being utilized; the lighting time frame needs to be regularly evaluated for correct function.
- The management of bred females should stress minimal disturbances from the end of breeding through implantation.
- Any undesirable behaviors seen in the breeders should be recorded and the animal evaluated for breeding soundness and future use as a breeder.
- Monitor body condition and adjust feed accordingly.



How to care for mink during the whelping/lactation season:

- Maintain nest boxes so they have adequate amounts of suitable bedding material and that they are clean and dry.
- Provide false bottoms/floors prior to whelping and remove as soon as kits are large enough.
- Monitor females and litters for health and welfare concerns and address appropriately.
- Follow farm procedure for kit fostering when needed.
- Warm chilled kits with an external heat source, where appropriate.
- Make water and feed accessible to the kits, as appropriate, for their stage of development.
- The use of kit hospitals should be developed for care of poor-doing kits.

How to care for mink during the weaning and separating period:

- Wean and separate kits according to farm plan.
- Monitor females and kits for health and welfare issues and address appropriately.
- Pen shocking densities must be considered when weaning the female.

How to care for mink during the growing period:

- Monitor mink for body condition, health and address appropriately.
- Pen stocking density must be maintained in accordance with the requirements of the Standard Guidelines.
- Feed appropriately to promote growth and minimize aggression with pen mates.
- Vaccinate mink according to farm plan.

How to care for mink during the conditioning period:

- Manage the mink's body condition through the conditioning process.
- Plan and adjust feeding levels in regards to weather and body conditions.
- Manage the mink's body condition and feeding protocol in preparation for breeding
- Review preparedness of Extreme Cold Weather protocol and Back-Up Water plan.



**PEN DESCRIPTION & DECLARATION**

SHED # _____				
DATE _____				
Number of <b>Furring</b> pens _____	Maximum allowable animal density per pen _____	Pen size (cu. or sq. inches) _____	Next box type (front mounted, jump-up, drop in, wedge) _____	Box size (cu. or sq. inches) _____
No. of Pens w/ Enrichments (shelf, hammock, tube) _____		No. of Pens w/ Manipulable Enrichments _____		
Date pens were constructed (estimate if before Jan. 2019) _____		Date and description of any major repairs (estimate if before Jan. 2019) _____		
Number of <b>Whelping</b> pens _____	Maximum allowable animal density per pen _____	Pen size (cu. or sq. inches) _____	Next box type (front mounted, jump-up, drop in, wedge) _____	Box size (cu. or sq. inches) _____
No. of Pens w/ Enrichments (shelf, hammock, tube) _____		No. of Pens w/ Manipulable Enrichments _____		
Date pens were constructed (estimate if before Jan. 2019) _____		Date and description of any major repairs (estimate if before Jan. 2019) _____		
Number of <b>Single Female</b> pens _____	Maximum allowable animal density per pen _____	Pen size (cu. or sq. inches) _____	Next box type (front mounted, jump-up, drop in, wedge) _____	Box size (cu. or sq. inches) _____
No. of Pens w/ Enrichments (shelf, hammock, tube) _____		No. of Pens w/ Manipulable Enrichments _____		
Date pens were constructed (estimate if before Jan. 2019) _____		Date and description of any major repairs (estimate if before Jan. 2019) _____		
Number of <b>Single Male</b> pens _____	Maximum allowable animal density per pen _____	Pen size (cu. or sq. inches) _____	Next box type (front mounted, jump-up, drop in, wedge) _____	Box size (cu. or sq. inches) _____
No. of Pens w/ Enrichments (shelf, hammock, tube) _____		No. of Pens w/ Manipulable Enrichments _____		
Date pens were constructed (estimate if before Jan. 2019) _____		Date and description of any major repairs (estimate if before Jan. 2019) _____		



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## **FALSE BOTTOMS**

False bottoms are constructed of \_\_\_\_\_

Time frame installed \_\_\_\_\_

Time frame removed \_\_\_\_\_

Cleaning and disinfecting regimen

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Storage regimen

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## **FEED COMPOSITION AND DEVELOPMENT**

If the farm uses a computer program to determine proper dietary content, name the program

\_\_\_\_\_

## **NUTRITIONIST CONTACT INFORMATION**

Name of Nutritionist \_\_\_\_\_

Company Name \_\_\_\_\_

Phone Number \_\_\_\_\_



## **WRITTEN BACK-UP PLAN FOR PRIMARY WATER SOURCE & PRIMARY WATER DELIVERY SYSTEM**

The objective of a primary water source and primary water delivery system back-up plan is to ensure that in the event of a source or system failure, the animals will still receive sufficient water of good quality.

### **BACK-UP PLAN FOR PRIMARY WATER SOURCE**

A back-up primary water source should:

- Be completely functional without primary water source
- Be able to supply water during power outages
- Be able to supply adequate capacity for prolonged periods of time (2 to 3 days)
- Be able to function year-round
- Be able to be operated and monitored when the owner/manager is not available

### **BACK-UP PLAN FOR PRIMARY WATER DELIVERY SYSTEM:**

A back-up primary water delivery system should:

- Be completely functional without primary delivery system
- Be able to supply water during power outages
- Be able to operate and offer water to all animals in a timely manner
- Be checked or tried to ensure working order periodically (minimum once per year)
- All materials required for back-up water delivery systems should be readily available in the event of a failure
- Be able to function year-round
- Be able to be operated and monitored when owner/manager is not available

### **Examples of alternate primary water supplies:**

- Back up well on farm for the primary water source
- Storage tank that can be filled, ex. fire department
- Surface water source



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- Snow, ice

### **Examples of alternative water delivery systems**

- Water hose and cups
- Independent mister or sprinkler system
- Motorized water tank
- Snow, ice

















**MINK MEDICAL TREATMENT RECORD**



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

Symptom: \_\_\_\_\_

Treatment: \_\_\_\_\_

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

Symptom: \_\_\_\_\_

Treatment: \_\_\_\_\_

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

Symptom: \_\_\_\_\_

Treatment: \_\_\_\_\_

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

Symptom: \_\_\_\_\_

Treatment: \_\_\_\_\_



## HERD VACCINATION PROTOCOL

YEAR \_\_\_\_\_

**The kits are vaccinated with:**

United Vaccines': Biocom-P; at \_\_\_\_\_ weeks of age

Serial lot(s) used: \_\_\_\_\_

United Vaccines': Distemink; at \_\_\_\_\_ weeks of age

Serial lot(s) used: \_\_\_\_\_

United Vaccines': \_\_\_\_\_ at \_\_\_\_\_ weeks of age

Serial lot(s) used: \_\_\_\_\_

**The adult mink are vaccinated with:**

United Vaccines': \_\_\_\_\_ at \_\_\_\_\_ of age

Serial lot(s) used: \_\_\_\_\_

United Vaccines': \_\_\_\_\_ at \_\_\_\_\_ of age

Serial lot(s): \_\_\_\_\_

Special instructions: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

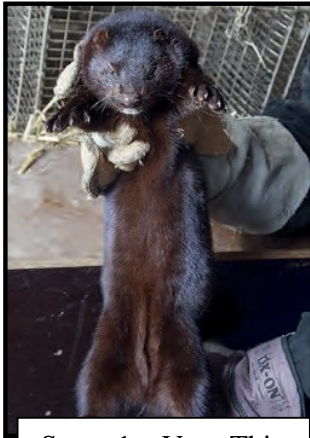


## **BODY CONDITION SCORING (BCS) OF MINK USING A FIVE-POINT SCALE**

Body condition scoring is a subjective assessment of the amount of fat (condition) on a mink and is a useful tool for managing the feeding program. However, it requires skill and experience, and must be done on a regular basis. When scoring the animals, keep the following points in mind:

- There are various ways of assessing body condition, including visual appraisal and the use of fingertip or hand pressure to assess how difficult it is to feel the ribs, backbone, etc. Visual appraisal is the quickest and most convenient method, since it requires little or no handling of the mink. Using non-visual criteria can help improve your assessment of the mink's body condition, but will take more time and requires handling of the mink.
- Body condition scoring is very subjective and should be done using the same criteria, and if possible by the same person each time. This provides increased consistency over time
- Some animals that appear to be fat may in fact be well muscled and in quite good condition. Individual body condition scores will also be affected by the amount of fur that the animal is carrying, and particularly by the amount of underfur. Account for the effects of muscling and fur density by using the nonvisual criteria listed.
- Visual evaluation of body condition should be an integral part of daily feeding chores. Detailed information on body condition should be collected for the entire herd at least once before the winter breeding period begins. Because body condition fluctuates naturally throughout the year this should be done at the same time or times each year.
- Approximately 90% of the herd should be in "ideal" body condition at breeding. As the season approaches you will need to rely on a visual appraisal for the females, as handling at this time can disturb breeding performance. The males can be scored during the testicle check in January - February, to ensure they are in good condition for the breeding season.
- If you select and separate possible breeders in late August or early September this is the best time to score the keepers. Approximately 90% of the mink's frame growth will be completed at this point so the feeding regime can be adjusted before the animals start accumulating body fat.
- Scoring can also be done during live grading (mid-to-late November). At this time the animals will have already accumulated winter fat so the scores will be higher than if they are scored in August-September. The feeding regime will need to be adjusted so the mink are in the desired condition prior to the start of the breeding season.
- The body condition for each mink should be recorded so that problem animals or groups of animals can be identified and monitored.
- Having a written summary of individual scores can also give you an idea of the variation within your herd. If there is a lot of variation within the herd, identify problem animals or groups of animals and make appropriate adjustments for these animals or groups. If variation in body condition is a problem you will need to consult your veterinarian or nutritionist.
- Nursing females may at times exhibit BCS 1. These animals should be identified immediately and the feeding regimen should be adjusted to counter any extreme weight loss.





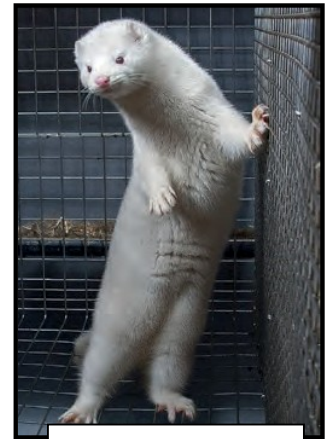
Score 1 – Very Thin

SCORE 1 – VERY THIN

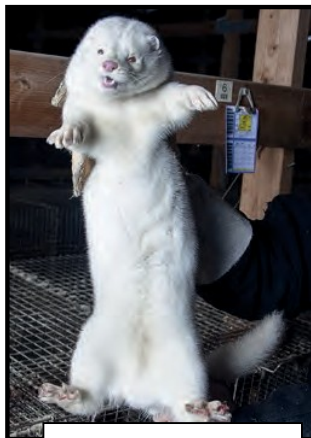
- The mink has an emaciated appearance with decreased muscle mass.
- The animal has a thin neck and a clearly V-shaped body.
- There is no body fat and the stomach is sunk in.
- Shoulder and hip bones can be seen and the ribs are easily felt.\*

SCORE 2 – THIN

- The mink has a thin neck and a V-shaped waistline.
- There is no subcutaneous body fat layer
- The shoulder and hip bones and ribs can be easily felt\*



Score 2 - Thin



Score 3 - Ideal

SCORE 3 – IDEAL

- The mink has a slender neck and a straight body shape
- There is a slight amount of subcutaneous body fat
- The shoulder and hip bones and ribs can be easily felt.\*



**SCORE 4 – HEAVY**

- The mink has a thicker neck and a pear shaped body.
- The ribs are difficult to feel\*
- The shoulder and hip bones are covered by a moderate layer of fat.
- An abdominal fat pad is present.



Score 5 - Obese

**SCORE 5 – OBESE**

- The mink has a thick neck with a slight brisket and a full body shape.
- The ribs are very difficult to feel.\*
- The shoulder and hip bones are covered by a moderate to thick fat layer.
- A fat pad is present on the abdomen and the tail.
- Fat deposits can be seen in the limbs and face.




**\* Non-visual criteria**



## INJURIES AND FUR CHEWING

### Injuries:

Animal injuries occur on mink farms for a variety of reasons. The most common injuries are abscesses, open wounds, scratches, sores/lesions, and biting injuries. It is vital that injured mink are quickly identified and the injuries properly evaluated. Below are injury levels 1-3 to be referenced in determining an injury's severity.

LEVEL	DESCRIPTION	PHOTO EXAMPLE
1	Unhealed injuries with a diameter < 0.5 inches OR minor healed lesions, for example, missing part of an ear or less than half the tail	
2	Unhealed injuries with a diameter < 1.25 inches OR major healed lesions, for example, missing more than half the tail	
3	Unhealed injuries with a diameter > 1.25 inches OR other major unhealed injury, for example, missing more than half the tail or bone exposed	




When considering treatment options reference the herd health treatment protocols (Form A-101) that were developed in consult with a veterinarian. Any mink with injuries Level 2 or 3 shall be marked and/or segregated. It is important that the farmer take measures to prevent reoccurrences of an injury by investigating and remedying any possible causes (for example moving or separating mink.)

If the animal does not respond to the recommended treatment in a reasonable amount of time, or is determined to be untreatable, it must be euthanized immediately.

### Fur Chewing:

Fur chewing is described as a behavioral disorder where mink chew their own fur or that of a cage mate. It is most often observed on the tip of the tail but larger areas on the tail and body may be fur-chewed.



SCORE	DESCRIPTION	PHOTO EXAMPLE
0	No/very little fur chewing (The outer tip of the tail is not visible and/or less than 0.2 in <sup>2</sup> of the tail or body has been chewed).	
1	Moderate fur chewing (The outer tip of the tail is visible and/or fur chewing of less than 1.25 inches of the tail or less than 1.25 x 1.25 inches fur chewing of the body).	
2	Severe fur chewing (> 1.25 inches of the tail or > 1.25 x 1.25 inches of the body has been chewed).	
3	Extensive fur chewing (> 4 inches of the tail or > 4 x 4 inches of the body has been chewed).	

Any animal that exhibits fur chewing at a **Score 2** or higher must be marked for observation and/or treatment.



## **FARM BIOSECURITY PLAN**

The objective of a biosecurity plan is for the farm to be able to control the environment in and around the farm and preclude any unwanted entrance of people, animals or material or the escape of any animals.

Biosecurity is defined as a group of management practices designed to minimize or prevent the introduction of infectious agents onto the farm or into the environment.

For a biosecurity plan to work, the farmer must first believe that it is an essential part of the management of the farm. Secondly, the farm must be willing to put forth the considerable effort and finances needed to ensure all involved with the farm will follow the plan.

The Fur Commission USA has provided the “*Biosecurity Protocols for Mink Farms in the United States*” which can be used as a reference.

A plan should be cover 4 basic areas:

1. The physical farm itself
2. Deliveries to the Farm
3. Employees of the farm
4. Visitors to the farm

### **THE FARM:**

The objective is to have complete control of the farm environment by controlling the entrance of people, limiting wildlife from entering the farm, keeping the mink from leaving the farm and controlling disease on the farm.

The criteria to be addressed;

- Perimeter fencing with gated access
- Signage to direct people movement
- Disease monitoring program: mortality monitoring, daily observation for illness, periodic disease testing (AD), post mortem examinations.
- Feed and water quality testing
- Disposal of casualties

### **DELIVERIES/PICKUPS**

- Monitor and control all deliveries; have predetermined procedures for suppliers to follow
- Have specific areas for deliveries to use, outside of the mink shed area



## **FUR COMMISSION USA**

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

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- Develop a specific entrance protocol for all new mink being brought onto the farm. These should include isolation, disease testing and monitoring

#### **VISITORS:**

- Some are welcome, some are not.
- Control access with a quality perimeter fence and signage.
- Sign in document to record visitors.
- Limit access to people that have not had other mink farm contact.
- All visitors need to be supplied coveralls, boots and wash their hands before entering the mink shed area.
- Instruct all visitors on your biosecurity plan requirements.
- Properly maintained foot baths should be at all people entrance areas.
- Monitor all visitors while they are on the farm.

#### **EMPLOYEES:**

- It is essential that all the employees understand the importance of biosecurity and abide by the plan.
- You, as owners, are looked up to and used as examples; it is imperative that you follow the biosecurity plan if you want your employees to follow the plan!
- Fully explain the all aspects of the plan to them
- All employees need to have dedicated coveralls (clothing), boots, gloves, etc., for use only on the farm.
- Have an area for employees to wash their hands before and after work.
- Train employees involved with the mink to recognize disease and how to report it.

#### **BASIC REQUIREMENTS:**

- Copy of the “*Biosecurity Protocols for Mink Farms in the United States*” present at the farm or in farm office
- Guard fence and/or enclosed buildings
- Biosecurity signage
- Sign-in document
- Coveralls and boots for visitors
- Employee training



## **PLAN FOR MANURE HANDLING, REMOVAL AND DISPOSAL**

Objective of a manure management plan is to ensure manure is properly removed and disposed of while reducing potential adverse effects on the health of the animals or the environment.

Written plan may include but not be limited to the following:

### Description of farm size

- Herd size
- Number of barns

### Description of location

- Acreage
- Pertinent soil types

### Description of manure system

- Liquid
- Solid
- Combination of both

### Description of manure containment and removal system

- How often it is removed

### Description of removal and disposal process

- Composting
- Stockpiling
- Land application
- Removal by third party

1. Protocols should be in place to avoid run-off from housing areas and storage areas.
2. Manure should be collected and removed from barns appropriately for the production and weather cycle (EG. more frequently during the warmer months or growing season)
3. Manure should be stored and disposed of in a biosecure manner, and in accordance with all applicable regulatory requirements.
4. Staff should be trained in the proper operations of manure removal equipment.

**Manure management must be in accordance with all applicable regulatory requirements.**



## **PROTOCOLS FOR EXTREME TEMPERATURES**

The objective of these protocols is to ensure that there is a plan in place to protect the mink in the event of extreme heat or extreme cold.

### **EXTREME COLD PROTOCOL (ECP):**

- Farms designate an approximate set point (°F) which implements ECP. Set points vary by region and the animals' growth cycle.
- Farm monitors weather forecasts to prepare for extreme cold situations. Preparations include but are not limited to;
  - Installation of plastic sides or lowering of curtain sides
  - Inspection of water system and set to prevent freezing (Ex. boilers turned on and running, heated cables turned on, etc.)
  - Feed energy levels and feeding protocols are adjusted to ensure animals can respond to the extreme cold
  - Providing animals with dry nest boxes with appropriate bedding
- Farm has installed thermometers at various locations throughout the farm.
- Farms have access to appropriate bedding for any extreme cold period.

### **EXTREME HEAT PROTOCOL (EHP):**

- Farms designate an approximate set point (°F) which implements EHP. Set points vary by region and the animals' growth cycle.
- Farm monitors weather forecasts to prepare for extreme heat situations. Preparations may include but are not limited to;
  - Ensuring every animal has access to shade (materials providing shade should not impede good ventilation)
  - Inspection of water system to ensure good working order and that back-up water systems are available and functional.
  - Additional cooling system to help mink maintain appropriate body temperature is available and functional (Ex. misters, water cups (drip system), garden hose and spray nozzle, cart sprayers, shed sprinklers)
- EHP indicates that efforts are made to avoid handling the mink.





- Farm has installed thermometers at various locations throughout the farm.

**BASIC REQUIREMENTS:**

- Set temperature points for implementing ECP/EHP
- Have written action plan for ECP/EHP, incorporating criteria from above
- Have thermometers in each type of shed
- Have equipment/material on farm to implement ECP/EHP protocols



## **PROTOCOLS FOR RECORD-KEEPING OF MORTALITIES AND HEALTHCARE TREATMENTS**

The objective of this protocol is to promote record-keeping of mortalities and individual and herd healthcare treatments, and to encourage the use of these records to track changes in herd health.

### **Records for Mortalities:**

- Daily records should be maintained for mortalities.
- This may include:
  - Barn & pen #
  - Sex/adult or juvenile/color of mink
  - Any symptoms of illness or injury visible on the mortality/post-mortem results
  - Any other relevant information
- Mortality records should be maintained, so they can be compared on a daily, weekly and/or seasonal basis to indicate changes in herd health.

### **Records for Healthcare Treatments:**

- Daily records should be maintained for any healthcare treatments given to individual mink. This may include:
  - Barn & pen #
  - Sex/adult or juvenile/color of mink
  - Symptom being treated
  - Type of treatment given/provided
  - If treatment involves antibiotic use, the name of the medication and dosage used should be recorded
- Healthcare treatment records may be compared on a weekly/seasonal basis to indicate changes in herd health.
- Daily records must be maintained for any healthcare treatments given to entire herd. This may include:
  - Symptom(s) being treated
  - Type of treatment given/provided
  - If treatment involves medication use, the name of the medication, concentration, dosage, and duration of treatment should be recorded
  - Veterinary prescription or VFD (if available)



## **PEST CONTROL GUIDELINES**

### **Fly control**

- Continual manure removal during appropriate times
- Decrease water exposure to manure and bedding
- Feed through larvacide
- Sprays, baits, adhesives
- Biologic control (wasps)

### **Birds**

- Netting
- Shed door closures
- Deterrents (hawk decoys, artificial hawk sounds)

### **Rodents**

- Rodenticides
- Regular manure and old feed removal
- Rodent proof feed storage
- Professional exterminator
- Cats (vaccinated, flea controlled, ringworm free)



## MINK TRANSPORTATION PROTOCOL

The transportation process can be divided into 2 categories:

### On Farm Transportation

1. Individual mink can be carried by supporting and controlling the mink's body, utilizing both hands for a maximum of 2 minutes.
2. When transportation needs to exceed 2 minutes, individual transport cages should be utilized.
3. Avoid excessive pressure on the abdomen when carrying the mink, especially pregnant females.
4. The movement of mink should not be done if an extreme heat protocol is in effect. Mink Transportation Protocol

### Off Farm Transportation

The United States Department of Agriculture stipulates that each person responsible for transporting animals must ensure that the entire transportation process does not cause injury or suffering to the animals. Each shipment will have a specific protocol developed; the following in the basic criteria all shipment protocols will adhere to.

1. The Mink and their fitness for transport.
  - All mink that are to be included in the shipment must be in a state of normal health and in an appropriate body condition for the time of year.
  - There should no signs of illness or injury.
  - Any compromised mink that do not meet the "normal health" requirements may only be transported under the direction of a veterinarian or directly for euthanasia.
  - The nutritional needs of the mink need to be met during the entire transportation process. Water and food availability is determined on the length of the process and the environmental conditions.
  - Proper hydration before, during and after the shipment is a critical factor that needs to be addressed.
  - Water needs to be available every 24 hours and feed every 36 hours during the entire transportation process.
  - Transportation during extreme weather conditions should be avoided.
2. Logistics of the transportation process.
  - Understand and plan the complete transportation process, so unnecessary delays can be minimized.
  - Consultation with your veterinarian to understand all applicable governmental and transport industry regulations and needed documentation.



- Transport cage design need to securely confine the mink and need to be placed to ensure adequate air flow, allowance for observation, allow for provisions of feed and water, and contain all waste.
- The transportation vehicle must provide for adequate ventilation, protection from the elements and the ability to access the mink for inspection, watering and feeding.
- Minimum transport cage dimensions':
  - Female cages; 15 in. in length, 7 in. wide, 7 in. height
  - Male cages; 15 in. in length, 8 in. wide, 8 in. height



## **CARBON MONOXIDE EUTHANASIA PROTOCOLS**

Technique: The goal is to euthanize the animals in a humane, timely and safe manner.

### **INDIVIDUAL ANIMAL:**

This can be utilized with animals that are too ill or injured to be treated successfully or that have not responded to treatment. The individual animal euthanasia chamber should:

- Have enough room for one animal to fit with ease. example; either a small box chamber or PVC pipe
- Allow easy placement of the animal
- Give secure confinement of the animal
- Allow for proper administration of the bottled gas through a regulator.
- Allow for delivery of appropriate concentration of gas (4% minimum)
- Allow the mink to remain in the chamber for at least 4 minutes (a timing devise should be part of the setup).
- Be designed to allow for cleaning

### **GROUP EUTHANASIA;**

Chamber construction should:

- Be sturdy with smooth surfaces that seals tightly and is cleanable.
- Have a self-closing door that allows rapid placement of the animal into the chamber.
- Setup with a side or bottom opening panel to allow for easy emptying of the chamber and observation of the animals.
- Use a system that tightly secures the compressed gas cylinder and protects the valve and delivery system.
- Have an automated valve or timed metering system for the administering the gas into the chamber at a predetermined pressure.
- Have a timing device that indicates the appropriate time has elapsed between the last animal that entered and the opening of the chamber.
- A minimum concentration of 40,000 ppm/ 4 % should be maintained in the chamber.



**PERSONNEL SAFETY:** goal is to eliminate any exposure of personnel to CO gas from low levels (normal euthanasia process) or high levels due to tank or system failures.

**Storage of gas cylinders:**

- Value covers need to be kept in place at all times during storage and handling.
- Tanks need to be kept secured from falling over
- Outside, secured storage is recommended for CO cylinders
- A CO alarm monitor should be in place for indoor storage
- No smoking in the storage area or when handling or using the compressed gas cylinders.

**Administration of gas and euthanasia chamber use:**

- Only appropriately trained personnel should be involved with the handling of compressed gas cylinders.
- Euthanasia personnel must be trained in the safe usage of the compressed gas cylinders and the operation of the euthanasia chamber.
- The instructions for the use of the euthanasia chamber should be readily available for review.

**Personnel Training**

- All individuals involved with the euthanasia process need to be trained in the proper use of the euthanasia chamber.
- Explain the safety concerns of CO; colorless, odorless, tasteless, very toxic at even low levels and explosive when mixed with air. (NO SMOKING)
- Explain the signs of toxicity; low exercise tolerance, headache, shortness of breath, nausea and dizziness.
- Explain the need to only charge the chamber and open the chamber in well ventilated areas, outside whenever possible and recognize the wind direction.
- Explain the farm's general procedure for euthanizing the mink.
- Explain the gas delivery system and its maintenance.



## **BASIC CRITERIA FOR EUTHANASIA PROTOCOL**

- Written procedures for euthanasia
- Euthanasia chamber operation instructions, set up and shut down
- Gas administration procedure; when the gas is administered and for what length of time.
- Description of how animals are put into chamber and removal
- Minimum length of time in chamber (4 minutes)
- Signs of confirmation of death
- Calculations on gas concentration of chamber in relation to volume of chamber, regulated gas pressure and time of administration.(supplied charts)
- Written safety guidelines for personnel.





## **HARVESTING & EUTHANASIA PERSONNEL SAFETY PROTOCOL FOR USE OF CARBON MONOXIDE (CO)**

**Employees are told that CO is colorless, tasteless and has no odor. The employees are told to report any signs of over exposure; low exercise tolerance, headache, shortness of breath, nausea, and/or dizziness.**

1. CO cylinders are stored with the valve covers in place
2. CO tanks are secured while in storage
3. A CO alarm monitor is in the storage area
4. CO warning sign is in storage area
5. Only designated employees are to handle the CO tanks
6. The chamber is only to be charged in the shed area and unloaded outside the processing area.
7. Any malfunction of the chambers is to be reported immediately.