

Risk Mitigation Measures for SARS-CoV-2-Positive Fur Farms

– Answers to Questions Posed to the Risk Assessment Unit

5.9.2023

Finnish Food Authority's Risk Assessment Unit

This report is based on information published by 28 September 2021. New information about SARS-CoV-2 that could affect the conclusions herein is continuously being published.

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I. BACKGROUND

The Finnish Food Authority's Risk Assessment Unit drafted this report on the SARS-CoV-2 situation on mink and raccoon dog farms and risk mitigation methods for them at the request of the Finnish Food Authority's Animal Health and Welfare Department based on currently available information. However, the information available about some subareas is insufficient to produce a conclusive assessment.

The Risk Assessment Unit has previously published the reports '[Coronavirus and food safety. COVID-19 from a food safety perspective](#)' and '[Zoonosis risk of the coronavirus – SARS-CoV-2 on mink farms](#)'.

The Department posed the following questions:

1. What are the effects of coronavirus-positive fur farms (mink and raccoon dogs) on human health if the number of coronavirus infections in the human population is low, and the vaccination coverage of the farm employees and the entire population is extensive?
2. What are the effects on the human coronavirus risk of farm-specific factors such as the farm being in an area with no other farms?
3. What is the effect on the human coronavirus risk of the animals on a farm being vaccinated against the coronavirus?
4. In the context of risk mitigation, if it is decided that the animals on a coronavirus-positive farm do not need to be euthanised, what risk mitigation measures should be adopted on such a farm? To what kind of coronavirus monitoring should such a farm be subjected?
5. Should mink and raccoon dog farms adopt the same risk mitigation methods? Does the vaccination coverage of humans affect the situation?

I.1. Human vaccination coverage

As human vaccination coverage has improved, risk mitigation options for fur farms other than euthanasia have been sought. The idea that SARS-CoV-2-positive animals pose a smaller risk to human health when more people are vaccinated underlies these endeavours. However, very little information exists about the duration of protection from reinfection provided by vaccination or a previous infection, and about what the effects of fur farms acting as reservoirs for the virus could be. The number of fur farms and the number of humans with two vaccine doses in the same region in September 2021 are shown in Figure 1. According to the figure, the vaccination coverage of humans (with two doses) is still insufficient in the regions with the most fur farms, but the coverage is improving. According to studies, all vaccines approved in the EU provide effective protection against severe forms of COVID-19.

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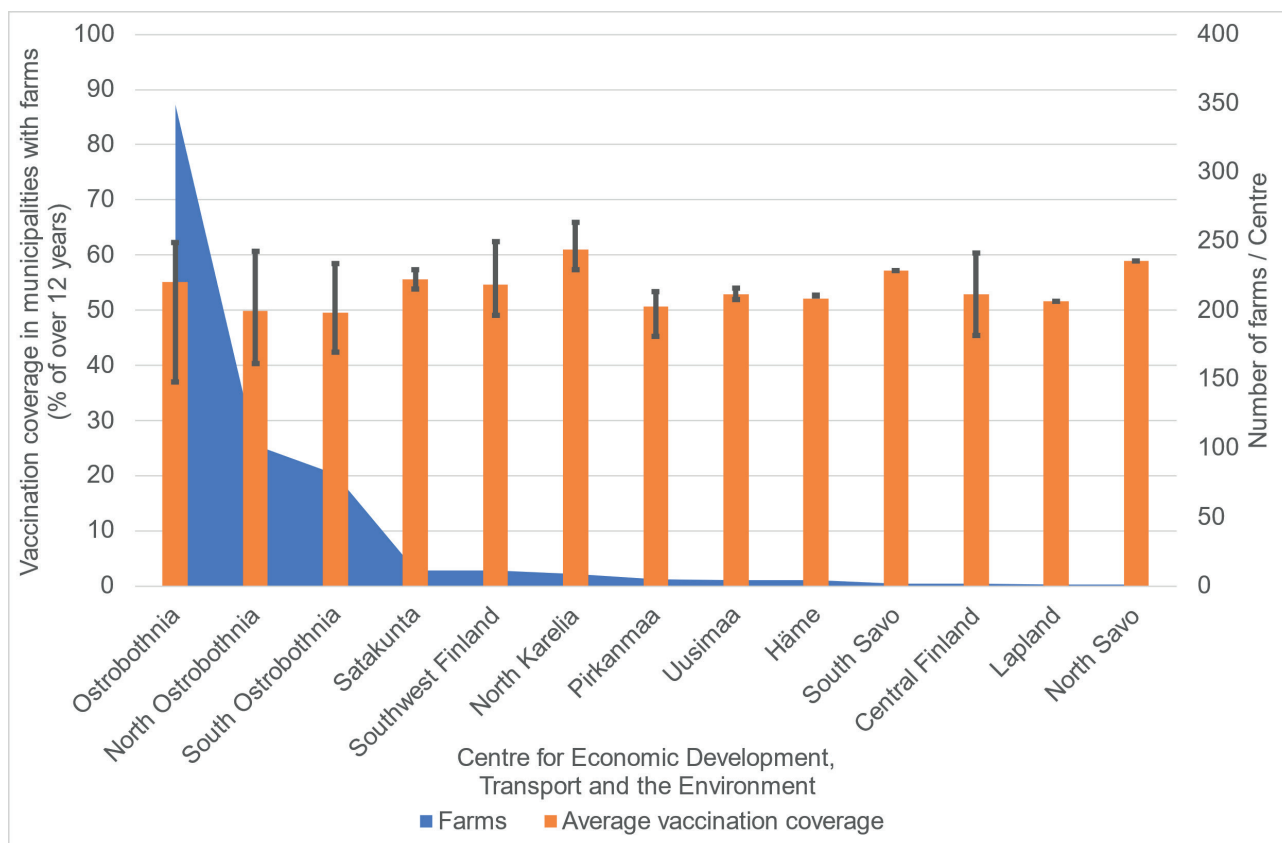


Figure 1. Total number of active mink and raccoon dog farms registered in the official register in the regions of different Centres for Economic Development, Transport and the Environment and vaccination coverage of those above 12 years of age (share of people with two vaccine doses of the total population, 5 September 2021). The dark line on top of the bars shows the difference between the largest and smallest vaccination coverage in the municipalities of each region. Only the municipalities with fur farms within their area are included.

1.2. Virus

SARS-CoV-2 variants

- Viruses naturally mutate continuously. In a dense population like those on fur farms, the virus spreads extensively to the animals on the farm, which means mutation happens more rapidly, which in turn means that it is more likely that new variants posing a risk to health will arise.
- Several variants of SARS-CoV-2 cause the COVID-19 disease, and the variants have different characteristics. Currently, most infected humans have the delta variant, which is more infectious than the original virus.
- The approved human vaccines also provide sufficient protection against the severe forms of the disease caused by the delta variant.

Immunity and antibodies

- An organism's ability to protect itself from pathogens is called immunity. The protection provided by immunity comprises antibody-mediated responses and cell-mediated responses. An immune organism produces antibodies that prevent or destroy pathogens.
- Immunity against SARS-CoV-2 lasts longer if the level of antibodies produced is high. Human immunity to SARS-CoV-2 is expected to decrease over time.
- Vaccines do not provide 100 per cent protection, and especially for high-risk groups, the level of antibodies may remain low. Although the vaccines are effective against severe forms of the disease, vaccinated humans can still infect others with the virus.

1.3. SARS-CoV-2 in humans

SARS-CoV-2 may cause the COVID-19 disease in humans, which comprehensively affects the body. The symptoms of COVID-19 include a fever, coughing, fatigue, sore muscles, a runny nose, headaches, and changes to smell or taste. There can also be difficulty in breathing, nausea, vomiting and diarrhoea. It is impossible to establish whether the infection is COVID-19 or another viral infection based on the symptoms alone. Even if an infected person is symptomless, they can still infect others. A small share of those who become infected develop severe symptoms that can require hospitalisation. According to the Finnish Institute for Health and Welfare's situation report in May, approximately one per cent of humans with a confirmed coronavirus infection have died of the infection. According to the WHO, global mortality is around 2.1 per cent, but this estimate is associated with many uncertainties. Most infected persons recover, but the symptoms persist for an extended period for some. This is called 'long covid', and its prevalence in the population is being investigated.

1.4. SARS-CoV-2 in animals

SARS-CoV-2 is a zoonosis, which means it can be transmitted from humans to animals and from animals to humans. The virus is usually transmitted via respiratory droplets, either in close contact or via the air. The source of infection in animals is most often a human. Symptoms of infected animals vary from no symptoms to respiratory and gastrointestinal symptoms and even to death. Based on experiences from other countries, control testing is the preferable method for detecting fur farm outbreaks because the animals may be asymptomatic, or the symptoms may go unnoticed for a long time.

FAO has published the following criteria for suspecting a SARS-CoV-2 infection in mink:

- Direct or indirect epidemiological interaction with a human with a verified COVID-19 diagnosis
- Direct or indirect epidemiological interaction with an animal with a SARS-CoV-2 infection
- Nasal discharge or difficulty in breathing, loss of appetite, gastrointestinal symptoms, apathy, early deaths of kits and/or adults

Mink

Mink are highly susceptible to SARS-CoV-2 infections. SARS-CoV-2 has also been found capable of mutating in mink.

Ferrets

Ferrets are highly susceptible to SARS-CoV-2 infections.

Raccoon dogs

SARS-CoV-2 infection in raccoon dogs is usually asymptomatic, but in experimental exposure, they have been proved to infect each other in direct contact.

Cats

Felines can infect each other with the virus. In other countries, SARS-CoV-2 has been found in stray cats roaming around SARS-CoV-2-positive mink farms.

Rabbits

Rabbits can be infected, but their epidemiological significance is unclear.

Dogs

Dogs can be infected with SARS-CoV-2, but it seems they cannot transmit it to others.

Deer

In North America, SARS-CoV-2 antibodies have been found in wild white-tailed deer, and the epidemiological significance of this is being investigated.

1.5. Mink SARS-CoV-2 situation in different countries

According to the World Organisation for Animal Health (OIE), by August 2021, 358 mink farms had reported SARS-CoV-2 outbreaks, of which 338 were in Europe, and 20 in the Americas.

Northern Europe

- The large epidemics on Danish mink farms in 2020 led to the decision to euthanise all farmed mink in the country.
- In Sweden, SARS-CoV-2 has been found on 14 farms. In addition, in antibody testing, mink with SARS-CoV-2 antibodies were found on most farms tested (23/26). Based on this, the Swedish authorities assessed that the majority of mink on Swedish fur farms had been infected by SARS-CoV-2 despite biosecurity measures. However, it should be noted that some of the antibody-positive results could be false positives due to cross-reactions, for example. Mink have not been euthanised in Sweden because of infection, but Sweden prohibited the production of new litters and purchase of new animals in 2021.
- No infections have been found on Finnish fur farms by the end of September 2021.

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Eastern Europe

- The only SARS-CoV-2-positive farm in Latvia was found in April 2021. The animals were not euthanised, and the epidemic is ongoing.
- In Lithuania, four SARS-CoV-2-positive farms have been found, the latest of which were discovered in March 2021. The animals have not been euthanised, and the epidemic is ongoing in the country.
- In Poland, there have been SARS-CoV-2 epidemics on two farms, the latest of which was in March 2021. The animals on the first positive farm were euthanised. A decision was made in August 2021 to quarantine the cages with infected mink, but all animals on the farm will be euthanised if SARS-CoV-2-positive animals are still found in official sampling.
- No information could be found on the SARS-CoV-2 situation in Russia when this report was drafted. The first coronavirus vaccine for animals was approved there, but no information is available about whether it has been administered to animals other than pets.

Central Europe

- The large epidemics on Dutch mink farms in 2020 led to the decision to euthanise all farmed mink in the country.
- One SARS-CoV-2 mink farm was discovered in France in November 2020. All the animals on the farm were euthanised.

Southern Europe

- In Greece, 24 of the 91 farms in the country are SARS-CoV-2-positive, and the latest infected farm was discovered in February 2021. The animals on the first farm were euthanised, but the animals of the following farms were not. The decision was justified by studies suggesting SARS-CoV-2 had not significantly spread from fur farms to humans. To support the decision, a strict risk mitigation and monitoring programme was put in place for fur farms and their employees. The restrictions apply throughout the country, and the country is considered as one area for SARS-CoV-2 mink infections.
- Between May and August 2021, Spain reported nine new SARS-CoV-2 outbreaks. The animals on the infected farms have not been euthanised.
- In Italy, the latest SARS-CoV-2 infected farm was discovered in April 2021, but the positive result from a new farm reported at that time came from antibody testing. Mink have not been euthanised in Italy due to SARS-CoV-2 infections.

North America

- In Canada, SARS-CoV-2 has been found on three fur farms. It was reported that the animals on the first two farms were euthanised for commercial use, and only infected animals were euthanised on the third farm.
- In the United States, the virus was first found on a mink farm in the late autumn of 2020. As of today, 16 mink farms have tested positive, 12 of which are in Utah. No animals have been euthanised due to infection. All animals on mink farms, including kits, must be vaccinated.

1.6. Farm biosecurity recommendations

Risk mitigation measures vary, depending on the country.

1.6.1. FAO's recommendations for fur farms

The Food and Agriculture Organization of the United Nations (FAO) recommends that all fur farms adopt the following measures for preventing SARS-CoV-2 infection:

Monitoring and record keeping

- Implementing a monitoring and early warning system: weekly sampling of animals and the environment, necropsies.
- Weekly monitoring of the number of animals (escaped, dead).
- Monitoring the animals' health: difficulty in breathing, nasal discharge, gastrointestinal issues, mortality.
- Keeping detailed records of all people entering the farm (date and time, contact details, reason for visit, has the visitor been to other farms within the last two days).

Humans

- Training on SARS-CoV-2 prevention biosecurity measures for employees, and regularly reminding the employees to comply with the measures.
- Only employees and essential visitors should be allowed on the farm.
- Visitors should only park their cars in designated areas away from animal housing.
- Body temperature should be measured before entering the farm, and no one should be allowed to enter if their body temperature exceeds 37.5 °C.
- Persons displaying symptoms typical of COVID-19, or who have tested positive, or who are in quarantine may not enter the farm.
- Employees should not visit other farms.
- Employees must maintain a safe distance between each other, and employees' arrival, breaks and mealtimes should be staggered.
- Hands should be washed before and after handling animals.

Farm structures

- A solid intact fence to prevent animals escaping the farm and others entering it.
- Feed, litter, waste, faeces, and other similar material that could attract animals must be kept covered.

Hygiene during work

- Employees must have access to appropriate personal protective equipment (face masks, gloves, safety goggles).
- Each animal shelter should have dedicated protective equipment (clothing, face masks, footwear), and these must be replaced daily.
- All spaces on the farm must be cleaned daily and disinfected when necessary.
- Tools must be disinfected after each use and before they are used elsewhere on the farm.
- A boot washing basin must be provided that must be cleaned daily.
- Employee facilities must be cleaned regularly and disinfected when necessary.
- To maintain general hygiene, the purity of water must be ensured, and water dispensing equipment cleaned every day, if possible, but at least once each month.
- FAO also recommends practising the ‘all in, all out’ approach (bringing all animals in and taking them away at the same time) and cleaning and disinfecting all spaces before using them again. This can be practised by farms that grow kits born on other farms until they are pelted.

1.6.2. Safety measures adopted elsewhere in Europe and in the United States

Humans

- Vaccinating employees.
- Measuring the body temperature of employees daily.
- Weekly testing of employees for SARS-CoV-2; results should be immediately reported to the veterinary authorities.
- Mandatory personal protective equipment.
- The importance of occupational safety must be stressed in extraordinary circumstances in particular.

Animals

- Euthanising SARS-CoV-2-positive animals on farms (‘stamping out’).
- Prohibiting animal transport.
- Fixed-term prohibition on producing new litters.
- Clinical studies and laboratory studies if the infection or mortality rate increases or a SARS-CoV-2-positive person visits the farm.
- Analysing genome sequencing results to understand the epidemic.
- Vaccinating mink.

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Hygiene during work

- Work equipment must not be shared between farms.
- Pelting animals from positive farms after animals from negative farms have been pelted (logistics).
- Storing raw pelts at (the) high(est possible) temperatures for at least four weeks.

2. SIGNIFICANCE OF AN INFECTED FARM TO THE POPULATION

- SARS-CoV-2 can spread in a vaccinated population, but vaccinated persons usually develop a mild form of the disease. The risk of fully vaccinated persons developing a severe form of the disease is low. However, it should be kept in mind that SARS-CoV-2 is continuously mutating.
- Fur farms provide good conditions for the virus to extensively spread, which increases its potential to mutate.
- The virus can also remain and circulate on an infected farm after the first wave of outbreaks.
 - If a fur farm's animals test positive for SARS-CoV-2, the virus can spread from the farm to the human population, although according to the current information, the risk of an extensive infection event is low with the current virus variants.
 - The virus can mutate faster in a dense animal population, which increases the likelihood of viral mutation that results in a variant with significant public health effects.
 - Vaccinated employees working on a farm or at a pelting centre can also be infected and spread the infection onwards, although the likelihood is lower than that of unvaccinated people. On a SARS-CoV-2-positive farm, the infection spreads extensively, which increases the risk of infection for employees, especially if they do not use proper personal protective equipment.
 - Unless the animals on an infected farm are euthanised, the virus strains on the farm must be actively studied. Sufficient sequencing capacity is required to monitor the mutation of the virus.
 - The efficiency of the protection provided by human vaccines against the SARS-CoV-2 strains in mink must be monitored.
 - The increased monitoring of and sampling on an infected farm must be continued even after the epidemic ends on the farm.

3. OPTIONS FOR MEASURES FOR SARS-CoV-2-POSITIVE MINK AND RACCOON DOG FARMS

The following measures can be adopted on SARS-CoV-2-positive fur farms:

- Euthanising all animals
- Prohibiting increasing the number of animals on the farms (new litters and purchases)
- Increased biosecurity measures only.

Euthanising the animals

Euthanising all infected animals on the farm will stop the circulation of the virus on the farm and prevent the mutation of the virus. This also decreases the risk of infection for the employees and those close to them. If the farm continues its operations later, new animals can be infected from the environment surrounding the farms, for example, via rodents. The farm must therefore be carefully cleaned and kept empty for a sufficient time before new animals are introduced.

The virus may continue to circulate in the farm's rodent population, which can then spread it to wild animals and any animals introduced to the farm later. If new animals are introduced after the infected animals are euthanised, it must be investigated to the extent possible how the SARS-CoV-2 epidemic started on the farm, and how the biosecurity measures used on the farm should be changed to prevent a new outbreak. The virus continues to circulate in the human population, and humans continuously introduce a risk of infection to mink farms.

It should be noted that in this option, the decision to euthanise should be made quickly before the virus can spread to neighbouring farms and wild animals. Sufficient resources should be reserved for euthanasia, and a euthanasia team should always be ready for action.

Prohibiting increasing the number of animals on the farms (new litters and purchases)

All additional activities except caring for breeding animals should be stopped, which will reduce the number of animals exposed to SARS-CoV-2, and no new susceptible animals should be introduced to the farm. The virus may still remain and circulate on the farm, and the farm may become a reservoir for the virus. New variants of the virus can still evolve, but the risk is reduced compared to if activities were not restricted at all. The virus can spread from the farm to wild animals, which can become a reservoir for the virus in addition to the farm being a possible source of infection to the humans who visit it.

Increased biosecurity measures

If a SARS-CoV-2-positive farm continues its activities, strict hygiene and biosecurity measures must be introduced and complied with. In this case, the epidemic may continue if the virus remains circulating on the farm for an extended period. The level of protection against the coronavirus provided by this option cannot be deemed sufficient.

Significance of vaccination

Vaccines reduce symptoms but do not prevent viral shedding. No vaccines against the coronavirus for fur animals have been approved in the EU by the publication of this report (September 2021).

3.1. Farm-specific factors

Biosecurity

- The opportunities of the virus to spread from a farm to humans or other animals depend on the biosecurity measures of the farms and people.
- Active risk-based testing enables detecting infection as quickly as possible and reduces the risk of the infection spreading from humans to mink. This should be continued in environments with a high risk of infection, even if vaccine coverage rises to a good level.
- Employees' awareness and level of personal protection and the provision of conditions for the maintenance of a high level of hygiene are particularly important for preventing transmission.
- Employees working for multiple farms can spread the virus between farms.
- All human and animal traffic to farms exposes farms to the risk of being infected or spreading the virus.
- The abilities of farms to control the risk vary. Independent external auditors should therefore assess the biosecurity level of each farm.

Location

- SARS-CoV-2 probably spreads efficiently between farms that are close to each other in 'fur farm clusters'.
- Humans are the most likely vehicles spreading the virus between fur farms that are farther away from each other.
- From farms, SARS-CoV-2 spreads to the human population through farm employees or visitors, regardless of the distance between the farm and other human settlements.
- Proximity to other farms poses a larger risk of transmission than proximity to human settlements.
 - A farm's biosecurity level has a significant effect on whether the infection will spread to employees and to the larger population through them.
 - The likelihood of transmission of the coronavirus between fur farms far away from each other is lower than the likelihood of transmission between farms in a fur farm cluster. A fur farm cluster is a set of farms near each other (within 3 km).
 - The virus can spread to the nearby human population through the transit of people on fur farms.
 - It is deemed unlikely that the virus can spread from an infected fur farm to wild animals, but it is not impossible.
 - Biosecurity measures also provide protection against other diseases, and they should be complied with in all situations.

3.2. Vaccinating mink

- Animal vaccines exist, but despite promising results, very little information is still available, and there is no information about the vaccine's long-term effectiveness.
- Based on preliminary studies, even vaccinated animals can be infected and shed the virus. Vaccinated mink develop less severe symptoms and shed the virus for a shorter time than unvaccinated animals.
- Secondary transmission to vaccinated humans from vaccinated mink are possible, but the likelihood of a secondary infection is lower in this case than with unvaccinated individuals.
- Viruses are expected to mutate less in vaccinated mink than in unvaccinated mink, as the duration of the infection is shorter.
- In the United States, vaccines have had no significant adverse effects on animals, but there is no information about the long-term effectiveness of the vaccines.
 - The significance of mink vaccination coverage cannot be assessed, but it is assumed that farm-level coverage will have a significant effect in regions with many fur farms close to each other.
 - Careful personal protection against the coronavirus remains the key to preventing transmission from mink to humans. The use of personal protective equipment is also needed to protect the animals against infection from humans.
 - Fur farm employees should be made aware that mink vaccination does not protect the employees from infection.
 - The protection provided by vaccines against any new variants should also be monitored.
 - It is possible that detecting infection will become more difficult when the symptoms become less severe due to the vaccines.
 - Like unvaccinated farms, vaccinated fur farms should also continue monitoring their SARS-CoV-2 situation, and viral mutation and the antibody resistance of strains during outbreaks.

3.3. Euthanising all animals and euthanasia options

When SARS-CoV-2 was first detected on Danish and Dutch fur farms, the decision was made to euthanise all animals on the infected farms and nearby farms and to sanitise all the farms. Several other countries followed suit in accordance with the precautionary principle and euthanised the animals, set up restriction zones of several kilometres around the farms, disinfected the farms and supervised the disposal of the carcasses. In Denmark, a viral strain that had evolved on the fur farms was detected in a significant share of the region's population. The animals on the infected farms were euthanised, after which the strain was no longer found in humans.

Other solutions were also implemented after it was concluded based on regional monitoring that infection primarily spread between humans and from humans to animals. The result was affected by the fact that during that period, outbreaks were caused by strains that were less capable of infecting humans than the delta variant. In addition, in the countries that adopted these solutions, the number of fur farms was low, which means the risk of exposure to the human population was also low.

In countries where mink were not euthanised, mink farms were obliged to comply with the following measures, among others:

- Vaccinating the employees of all mink farms, weekly testing, and daily body temperature monitoring.
- Reporting the test results of exposed and/or infected persons immediately to the veterinary authorities.
- Weekly testing of animals and whole genome sequencing of isolated viruses.
- Monitoring the symptoms of animals and testing all sick individuals.
- Stricter biosecurity measures for all farms.
- Prohibiting animal transport for all farms.
- Pelting order: pelting the animals from infected farms last and drying the pelts at high temperatures for at least four weeks.
- Fixed-term prohibition on producing new litters.

If an animal disease is detected, euthanising the animals is an effective method for preventing the spread of the disease in situations where the disease to be prevented only infects a certain set of species and has only spread to a limited area within the country. However, SARS-CoV-2 has extensively spread in the human population, which means that it can spread via humans to a temporarily emptied fur farm again if new animals are purchased after euthanasia. The following risk mitigation methods were seen as alternatives to euthanasia:

- Prohibiting animal transport to and from the farms.
- Prohibiting the production of new litters until the farm is proved SARS-CoV-2-negative in repeated testing (i.e., the virus is not detected in several consecutive PCR tests).
- In addition, farm-specific personal protective equipment (a face mask, protective clothing, footwear, disposable coverings, washing clothes at temperatures of at least 60 °C).
- Regular weekly testing of all visitors to the farm (incl. employees) and daily body temperature monitoring.
- Daily monitoring of the health of the animals and weekly testing and keeping records in accordance with the FAO's recommendations.
- Similar monitoring, testing and record keeping related to humans and animals on nearby farms.
- Delivering dead animals to processing facilities in sealed containers.
- Only using dedicated equipment and vehicles to transport pelts and carcasses, and mechanically cleaning and disinfecting the equipment and vehicles after each use.

3.4. Risk mitigation methods for raccoon dogs

- Research information about the coronavirus and raccoon dogs is insufficient. However, it has been proved that raccoon dogs can be infected with SARS-CoV-2.
- Although raccoon dogs are not particularly susceptible to symptomatic forms of the disease, they can infect other raccoon dogs and mink in direct contact.
- The FAO also recommends strict measures against SARS-CoV-2 spread by raccoon dogs.
- The farming of raccoon dogs, the high animal density, and mink farms also farming raccoon dogs increase the risk in Finland.
 - Safety measures should not be stopped, even if farmed mink in Finland are vaccinated.
 - The current information is based on studies of individual raccoon dogs, in which it has been found that raccoon dogs can be infected, even though they are less susceptible than mink. Because only limited information is available, raccoon dog farms should be subject to the same risk mitigation requirements as mink farms.

4. SAMPLING

A joint publication of the EFSA and ECDC states that sampling must be carried out in accordance with the objective for each sampling.

If the objective is to

a) detect SARS-CoV-2 infection at an early stage:

- Samples must be collected weekly
- The number of samples must be planned for at least a five per cent prevalence, which corresponds to 59 samples for each epidemiological unit on a farm with 10,000 animals

b) detect SARS-CoV-2 infection based on the suspicion of a farm being infected:

- The number of samples must be planned for a prevalence of 50 per cent, which corresponds to a detection probability of 95 per cent with five samples from a farm with 10,000 animals, and 99 per cent with seven samples

c) monitor mutation:

- All positive samples must be sequenced. If sequencing cannot be carried out because there are too many samples, a representative subset of the samples must be selected.

In Finland, the objective is to detect SARS-CoV-2 on farms as early as possible.

Section 4.3 of the '[Zoonosis risk of the coronavirus – SARS-CoV-2 on mink farms](#)' report of the Finnish Food Authority's Risk Assessment Unit published on 27 November 2020 discussed the effect of the sample size on the detection of infection (Table 1) (Zoonosis risk of the coronavirus – SARS-CoV-2 on mink farms). In other words, if the prevalence of SARS-CoV-2 on a farm with 1,000 animals is assumed to be one per cent, 260 samples must be collected, and for a farm with 10,000 animals, samples should be collected from 300 animals to achieve a detection reliability of 95 per cent. If prevalence is assumed to be ten per cent, 30 samples should be collected from both a farm with 1,000 animals and a farm with 10,000 animals. Samples only provide information about the situation at the time of sampling, so sampling must be repeated sufficiently frequently.

Table 1. Effect of the number of samples on detecting infection. The results show how many samples are required for the probability of detecting infection to be 95 per cent. The required number of samples depends on the size of the farm and on the share of infected animals.

Samples from farms with 100 animals	Samples from farms with 1,000 animals	Samples from farms with 10,000 animals	Probability of detection	Prevalence
3	3	3	95 %	63 %
5	5	5	95 %	45 %
10	10	10	95 %	26 %
25	30	30	95 %	10 %
65	100	100	95 %	3 %
95	260	300	95 %	1 %

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