

**To:** (10)(2e) <(10)(2e)@minvws.nl>; (10)(2e) <(10)(2e)@minvws.nl>  
**From:** (10)(2e)  
**Sent:** Wed 10/14/2020 7:40:37 AM  
**Subject:** RE: PRO/AH/EDR> COVID-19 update (437): animal, Netherlands, Denmark, mink, spread, control  
**Received:** Wed 10/14/2020 7:40:38 AM

Nou, ik kan ook zo'n gevoel. Ik wil dat wel eens van het RIVM horen.

**Van:** (10)(2e) <(10)(2e)@minvws.nl>  
**Verzonden:** woensdag 14 oktober 2020 09:17  
**Aan:** (10)(2e) <(10)(2e)@minvws.nl>; (10)(2e) <(10)(2e)@minvws.nl>  
**Onderwerp:** RE: PRO/AH/EDR> COVID-19 update (437): animal, Netherlands, Denmark, mink, spread, control

Ik geloof er alleen helemaal niks van

**Van:** (10)(2e) <(10)(2e)@minvws.nl>  
**Verzonden:** woensdag 14 oktober 2020 09:06  
**Aan:** (10)(2e) <(10)(2e)@minvws.nl>; (10)(2e) <(10)(2e)@minvws.nl>  
**Onderwerp:** FW: PRO/AH/EDR> COVID-19 update (437): animal, Netherlands, Denmark, mink, spread, control

Ter info. Brief van CVO aan OIE over de nertsen. Gele passage heb ik nog niet eerder met zo'n stelligheid gehoord of gelezen. Mooi voor achter de hand voor als we weer wat bij de HSC moeten melden.

-----Oorspronkelijk bericht-----

**Van:** (10)(2g) <(10)(2g)@promedmail.org> <(10)(2g)@promedmail.org> Namens (10)(2g) <(10)(2g)@promedmail.org>  
**Verzonden:** dinsdag 13 oktober 2020 23:46  
**Aan:** (10)(2g) <(10)(2g)@promedmail.org>; (10)(2g) <(10)(2g)@promedmail.org>  
**Onderwerp:** PRO/AH/EDR> COVID-19 update (437): animal, Netherlands, Denmark, mink, spread, control

CORONAVIRUS DISEASE 2019 UPDATE (437): ANIMAL, NETHERLANDS, DENMARK, FARMED MINK, SPREAD, CONTROL  
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A ProMED-mail post

<<http://www.promedmail.org>>

ProMED-mail is a program of the

International Society for Infectious Diseases <<http://www.isid.org>>

[1] Netherlands, update

Date: Tue 6 Oct 2020

SOURCE: OIE - COVID-19 Portal - events in animals - The Netherlands - situation update No 6 [abridged, edited]

<[https://www.oie.int/fileadmin/Home/MM/letter\\_6\\_October\\_2020\\_to\\_OIE\\_update\\_situation\\_SARS\\_CoV\\_2\\_infections\\_in\\_mink\\_in\\_The\\_Netherlands.pdf](https://www.oie.int/fileadmin/Home/MM/letter_6_October_2020_to_OIE_update_situation_SARS_CoV_2_infections_in_mink_in_The_Netherlands.pdf)>

[A letter from (10)(2e) to (10)(2e) / 20247814, dated 6 Oct 2020],

Update situation with respect to SARS-CoV-2 infections in mink in The Netherlands

I herewith would like to update you, based on article 1.1.6.1 of the TAHC of the OIE [see comment], about the situation with regard to the SARS-CoV-2 infection in mink in The Netherlands.

Currently 62 [see comment] mink farms in the Netherlands have been infected. A total of 43 are located in the province of Noord Brabant, 17 in the province of Limburg and 2 in the province of Gelderland. On 25 farms the owner noticed clinical signs and reported the suspicion to the competent authority whereas 37 infections were detected through the early warning system (obligation to send in dead animals weekly). We carry out tracing research to elucidate the still unidentified sources of virus introduction. We also carry out intensive research at certain farms. For example on some farms the early warning samples at

a certain time showed a weak PCR signal that was not confirmed in the official samples. Later on, mink on some of these farms developed clinical symptoms. In addition, serological examination showed some farms that were seronegative at the time of culling, suggesting a recent infection, whereas on some other farms up to 70% of the mink were seropositive despite the early warning and notification system, suggesting that the infection may have spread for a longer time than we previously hypothesized. We will look in more detail to a possible role of wildlife, e.g. bats and Mustelidae, and wild birds.

Taking into account all the hygienic measures employees working on mink farm are taking, and the strict procedures for personnel working on farms, which I have mentioned in my previous letter, it seems unlikely that personnel currently transmit the virus between farms. Finally, I would like to emphasize that there is still no indication of spread of virus into the human population.

I am in close contact with my colleague from Denmark about the situations in our respective countries and we share all the knowledge and information that is available. We organized a meeting with scientists and policy makers of both countries about the situation, and the various control measures both countries have taken.

Currently, we are preparing for the period in which mink owners will start killing the animals for harvesting pelts. We consider applying additional measures regarding testing and/or protection of personnel to guarantee employees can do their work safely. We are also still working on the new legislation to end mink farming in the Netherlands in March 2021, before the new breeding period.

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[Article 1.1.6.1 of the TAHC (Terrestrial Animal Health Code) of the OIE reads, "Although Member Countries are only required to notify listed diseases, infections and infestations, and emerging diseases, they are encouraged to provide the OIE with other important animal health information." COVID-19 and its causative agent, SARS CoV-2 are an emerging disease/virus; as apparent from the Dutch investigations, COVID-19 is, most likely, zoonotic.

TAHC (2020 edition) addresses 89 terrestrial animal diseases, infections and infestations, divided into the following 9 groups (in brackets, number of disease entities).

1. Multiple species diseases, infections and infestations (24)
2. Cattle diseases and infections (14)
3. Sheep and goat diseases and infections (11)
4. Equine diseases and infections (11)
5. Swine diseases and infections (6)
6. Avian diseases and infections (13)
7. Lagomorph diseases and infections (2)
8. Bee diseases, infections and infestations (6)
9. Other diseases and infections (2)

Diseases of minks are not included; hence OIE's Code does not address health requirements for international trade in minks.

According to EU legislation, farmed minks are regarded as "other animals". Such animals are addressed in Council Directive 92/65/EEC of 13 Jul 1992 "laying down animal health requirements governing trade in and imports into the Community of animals, semen, ova and embryos not subject to animal health requirements laid down in specific Community rules". The updated (as of 16 Jul 2019) text of the said directive is available at

<<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0065-20190716&from=EN>>.

The updated 92/65/EEC directive includes 2 provisions related to

minks:

1. Trade in mink and foxes is prohibited if they come from a holding on which rabies is present or is suspected of having been present within the previous 6 months, or have been in contact with animals from such holdings, inasmuch as no systematic vaccination programme is applied" (article 10).

2. Import from "3rd countries" and intracommunity trade in minks is liable to requirements/documentation/reporting of named mink diseases, included in annex B of the directive, namely the viral diseases Mink Viral Enteritis and Aleutian disease.

In case COVID-19 is to be taken into consideration when (breeding) minks are internationally traded, legal aspects deserve to be visited.  
- Mod.AS]

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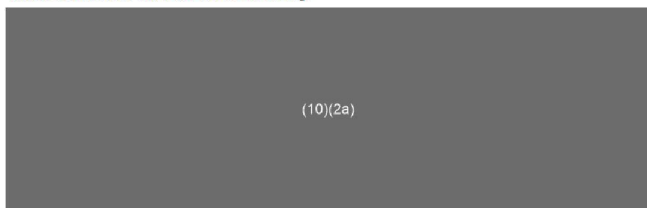
[2] Denmark, North Jutland, Mid Jutland, spread

Date: Tue 13 Oct 2020 [accessed]

Source: Danish Veterinary and Food Administration (DVFA) [in Danish, machine trans., edited]

<<https://www.foedevarestyrelsen.dk/Leksikon/Sider/Kort-over-screening-af-COVID-19-i-mink.aspx>>

[The map and table, continuously updated, showed the following data when accessed on Tue 13 Oct 2020]:



(10)(2a)

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[Since our previous report from Denmark, 10 Oct 2020 (<http://promedmail.org/post/20201010.7851707>), when the total number of infected holdings was 63 in 7 municipalities, 13 new infected holdings have been added in 3-4 days. The disease is currently circulating in 2 of Denmark's main regions, North and Mid Jutland.

On 1 Oct 2020, Denmark's policy was changed, from non-culling to culling of infected holdings (similar to the Dutch policy), adding (preventive?) culling of non-infected holdings as well (which is not practiced in Netherlands). According to media reports, the new policy involves the culling of about one million minks in Denmark.

In the Netherlands, the number of infected farms, as of 12 Oct 2020, is 64 - exceeding 50% of the total countrywide number of mink farms at the start of the event. The cooperation between the 2 countries, indicated in (10)(2a) recent update (item 1 above), deserves to be viewed as a warmly commended contribution to the study of COVID-19 in minks and of its zoonotic aspects, and to its control. The results are expected to serve both participants as well as other mink-producing countries.

The Dutch investigators have genotyped SARS-CoV-2 from minks and humans on infected farms; preliminary findings led to suspected animal-to-human infection of 2 farm workers (Ref 1), an issue yet under further study while considered when culling of infected holdings was discussed. The Danish (10)(2a) (10)(2a), published in 2017 the 1st draft reference genome of the American mink (*\_Neovison vison\_*),



which is the mink species farmed globally (Ref 2).

The Danish decision to go over to culling of infected holdings, as well as (according to media sources) culling of (selected?) non-infected holdings, is yet to be officially announced and explained.

#### References

1. Oreshkova N, Molenaar RJ, Vreman S, et al. SARS-CoV-2 infection in farmed minks, the Netherlands, April and May 2020. *Euro Surveill.* 2020; 25(23): 10.2807/1560-7917.ES.2020.25.23.2001005. doi:10.2807/1560-7917.ES.2020.25.23.2001005, available at: <[https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.25.23.2001005#html\\_fulltext](https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.25.23.2001005#html_fulltext)>
2. Cai Z, Petersen B, Sahana G, Madsen LB et al. The first draft reference genome of the American mink (*Neovison vison*). *Sci Rep.* 2017 Nov 6;7(1):14564. doi: 10.1038/s41598-017-15169-z. PMID: 29109430; PMCID: PMC5674041, available at: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5674041/>> - Mod.AS

HealthMap/ProMED maps:

Netherlands: <<http://healthmap.org/promed/p/104>>

Denmark: <<http://healthmap.org/promed/p/111>>

[See Also:

- COVID-19 update (433): animal, Denmark (ND,MI) farmed mink, spread, control <http://promedmail.org/post/20201010.7851707>
- COVID-19 update (430): animal, USA (UT) mink <http://promedmail.org/post/20201009.7847704>
- COVID-19 update (425): animal, Denmark (ND) farmed mink, spread, control <http://promedmail.org/post/20201004.7835635>
- COVID-19 update (414): animal, Netherlands (LI), Denmark (ND), farm mink, spread <http://promedmail.org/post/20200925.7813579>
- COVID-19 update (406): animal, Netherlands (LI), Denmark (ND), farm mink, spread <http://promedmail.org/post/20200918.7794239>
- COVID-19 update (401): Netherlands (NB), Denmark, farmed mink, spread <http://promedmail.org/post/20200914.7777661>
- COVID-19 update (394): Netherlands (NB) animal, farmed mink, spread <http://promedmail.org/post/20200908.7759382>
- COVID-19 update (387): Netherlands, mink, animal & public health, research <http://promedmail.org/post/20200902.7740793>
- COVID-19 update (382): Netherlands, animal, farmed mink, spread, control <http://promedmail.org/post/20200830.7730463>
- COVID-19 update (376): animal, ferret, mink, comment <http://promedmail.org/post/20200827.7721923>
- COVID-19 update (366): animal, USA (UT) mink <http://promedmail.org/post/20200818.7692815>
- COVID-19 update (363): animal, Denmark (ND) Netherlands (NB,LI) mink, spread <http://promedmail.org/post/20200817.7687830>
- COVID-19 update (340): animal, China, enviro monitoring, Netherlands (NB), mink <http://promedmail.org/post/20200801.7635820>
- COVID-19 update (334): animal, Netherlands, mink, spread, UK, cat, 1st rep, OIE <http://promedmail.org/post/20200727.7617582>
- COVID-19 update (324): Netherlands (NB) animal, farmed mink, spread <http://promedmail.org/post/20200719.7591013>
- COVID-19 update (317): Netherlands (NB) animal, farmed mink, spread <http://promedmail.org/post/20200716.7578453>
- COVID-19 update (307): Netherlands (NB), Denmark (ND) farmed mink, spread, control <http://promedmail.org/post/20200708.7553067>
- COVID-19 update (301): Denmark (ND) Netherlands (NB) farmed mink, spread, control <http://promedmail.org/post/20200703.7536980>
- COVID-19 update (284): Denmark (ND) animal, farmed mink, spread, dog <http://promedmail.org/post/20200624.7506728>
- COVID-19 update (281): Netherlands (NB, LI) farmed mink, spread, animal, global <http://promedmail.org/post/20200623.7502849>
- COVID-19 update (266): Denmark (ND) animal, farmed mink, 1st rep <http://promedmail.org/post/20200617.7479510>
- COVID-19 update (251): Netherlands (NB, LI) animal, farmed mink, spread, culling <http://promedmail.org/post/20200610.7453845>
- COVID-19 update (248): Netherlands (NB, LI) animal, mink, spread, culling, cat <http://promedmail.org/post/20200609.7446478>

COVID-19 update (236): Netherlands (NB, LI) animal, farmed mink, spread, culling <http://promedmail.org/post/20200604.7427849>  
 COVID-19 update (230): Netherlands (NB, LI) animal, farmed mink, spread, control <http://promedmail.org/post/20200602.7420433>  
 COVID-19 update (215): Netherlands (NB) animal, mink-to-human, epidem., control <http://promedmail.org/post/20200527.7385049>  
 COVID-19 update (209): Netherlands (NB) farmed mink, animal-to-human, cat, epid <http://promedmail.org/post/20200525.7375359>  
 COVID-19 update (198): Netherlands (NB) farmed mink, animal-to-human infect susp <http://promedmail.org/post/20200520.7359976>  
 COVID-19 update (189): Netherlands (NB) animal, farmed mink, research, cat, dog <http://promedmail.org/post/20200517.7344274>  
 COVID-19 update (177): Netherlands (NB) animal, farmed mink, Spain (CT) cat susp <http://promedmail.org/post/20200512.7328587>  
 COVID-19 update (174): Netherlands (NB) animal, farmed mink, comment <http://promedmail.org/post/20200511.7323845>  
 COVID-19 update (169): Netherlands (NB) animal, farmed mink, spread, rabbit susp <http://promedmail.org/post/20200509.7316646>  
 COVID-19 update (154): Netherlands (NB) animal, farmed mink, research <http://promedmail.org/post/20200503.7294846>  
 COVID-19 update (146): Netherlands (NB) animal, farmed mink, epidemiology <http://promedmail.org/post/20200501.7286113>  
 COVID-19 update (135): Netherlands (NB) animal, farmed mink <http://promedmail.org/post/20200427.7272289>

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