



Ministry of Agriculture,
Nature and Food Quality



SARS CoV-2 infections of mink in the Netherlands

SCOPAFF-meeting

18.06.2020



General information the Netherlands

- 127 active mink farms
- $\pm 2.320.000$ adult mink
 - Range ± 500 to ± 120.000 mink per farm
 - Average 18.000 mink per farm
- Keeping of mink for fur prohibited by Dutch law per 1-Jan-2024
- Farms have little contact with other farms or surroundings



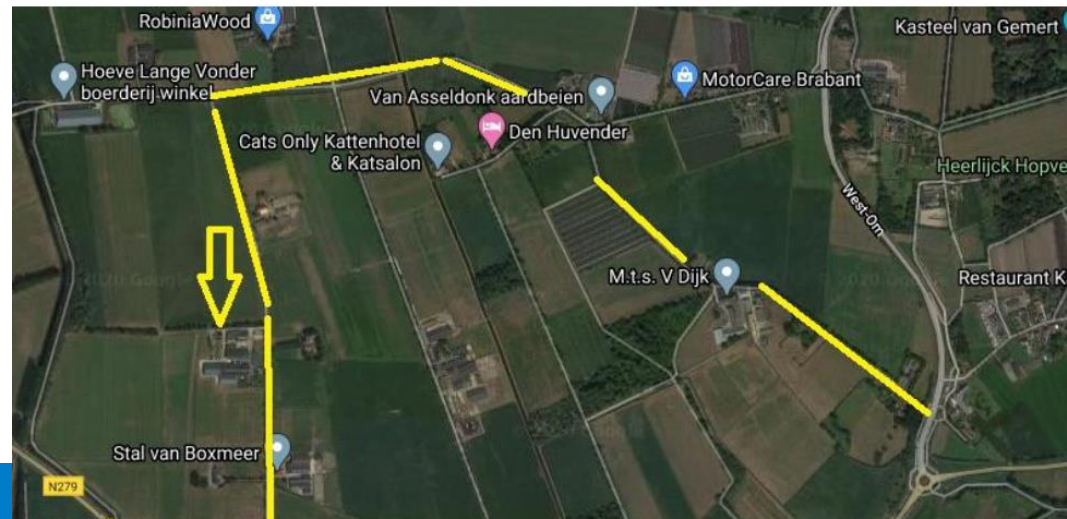


First findings SARS-CoV2

- Respiratory and gastrointestinal problems in mink reported to AHS
- Tested for SARS-CoV2 because owners had COVID-like symptoms
- SARS-Cov2 positive results at AHS and confirmed at WBVR-Lelystad

- Farm 1 Milheeze, North Brabant – positive April 24th
 - 13.000 adult mink on 2 locations

- Farm 2 Beek en Donk, North Brabant – positive April 25th
 - 7500 adult mink





Measures

- Reporting obligation for farmers, veterinarians and laboratory personnel in case of SARS-Cov2-like symptoms in mink per April 26th – whole country
- No transport of animals or manure from the infected farms
- Precaution: no cycling or walking in zone of 400 meters (local authority – withdrawn May 15th)



Epidemiological investigation first farm

Mink

- Pathology => severe pneumonia
- Virology sick/dead animals => nearly all samples dead and sick mink PCR positive, high virus load
- Virology faeces clinically healthy animals => 11/53 and 9/30 PCR positive
- Serology clinically healthy => nearly all positive tested in VNT

Environment

- Air samples in barn 2/6, 1/6, 3/6 positive, low virus load
- None of the samples outside the barn positive
- Second sampling: all samples negative, inside and outside

Cats (living on farm)

- 3/11 seropositive but PCR negative





Molecular epidemiology

- Infections probably already more than 4 weeks on the farms
- Probably efficient mink to mink transmission
- No relation between infected farms
- No relations to known CoV2 human isolates (so no spread out of the farm)



Developments

- May 19th : strong indication of a case of human infection (employee of infected farm) derived from mink -> based on genomic comparison of virus isolates
- May 19th : National zoonotic structure activated
- May 19th : Mandatory serological surveillance and early warning on mink farms
- May 20th: SARS-Cov2 appointed as national regulated animal disease
- May 28th : Additional measures taken
 - No transport of animals and manure in the whole country
 - Mandatory hygiene protocol for farms and transporters
 - No visitors allowed on mink farms, except veterinarian
 - Restriction of movement of other animals to and from mink farms (dogs and cats)
- June 6th : Start culling of infected farms => public health risk of mink farms as possible long-term virus-source



Culling process

- Before culling valuation of the animals for compensation

The culling itself:

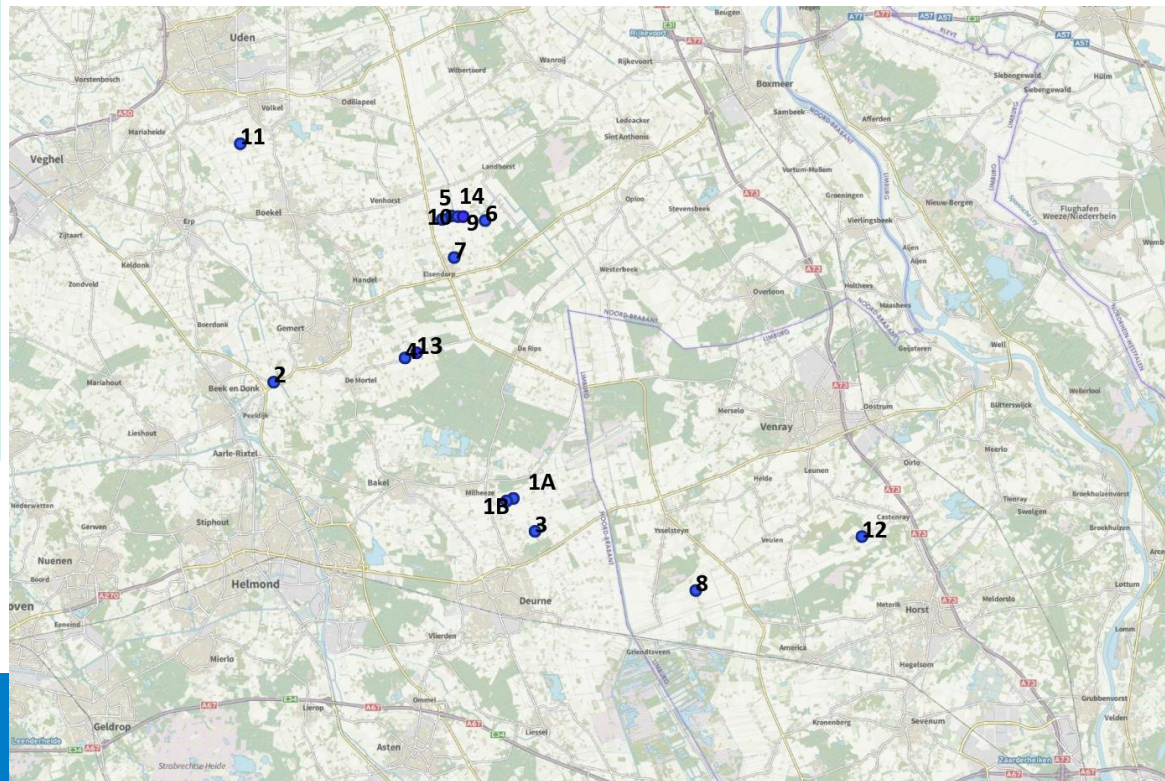
- Executed by the farmer(s) with own equipment
- Under authority and in presence of NVWA (CA)
- Supervised and audited by National Animal Welfare Commission
- Farmers from infected farms assist each other
- Own CO equipment
- One to four farms can be culled per day
- Dead animals removed to the rendering plant
- Mandatory cleaning and disinfection





Locations of infected farms

- 15 infected farms found
- Screening and EW ongoing





Current situation (June 18, 2020)

- 15 infected farms found and culled
- National measures remain
 - No transport of animals
 - Mandatory hygiene protocols
 - No visitors on farms
- Surveillance in place
 - Mandatory notification of symptoms
 - Early warning program -> mandatory weekly pathology of dead animals
 - Serological screening of farms



Thank you for your attention