Request for a scientific opinion on Chronic Wasting Disease (CWD) in cervids

Background

In April 2016 The Norwegian Veterinary Institute diagnosed Chronic Wasting Disease (CWD) in a wild reindeer from the Nordfjella population in the southwest of Norway. A moose was diagnosed with the same disease in May in Trøndelag and another in the same area in June. The disease is well known in North America. However, this is the first detection of CWD in Europe and in wild reindeer worldwide.

The CWD situation is not directly comparable to that in North America. Reindeer is a nomadic species that lives in herds while moose is a more solitary animal. Norwegian wild reindeer and moose populations are mainly regulated through harvesting. Modelling effects of different management strategies (e.g. harvesting tactics and the short- and long-term outcome of these) that take into account ecology, demography and movement of wild reindeer, including scenarios of how the disease spreads, may be relevant in the future.

Due to the lack of information and the lack of experience in handling this disease, the Norwegian Food Safety Authority and the Norwegian Environment Agency hereby requests VKM to provide a scientific opinion.

Available data

1. Export data for the specified products for the last three years, with product breakdown, and quantities (see attachment).

Terms of reference

Phase 1

1. **Food safety**
    a. Zoonotic potential – how certain is it that CWD is not a zoonosis?
    b. Is it safe to eat meat (all edible products) from cervids?
        i. Is it safe to eat meat stored in freezers from previous season(s)
        ii. Is it safe to eat meat from animals harvested/slaughtered in the coming season?
    c. Are there any relevant preventive measures?
        i. If yes, should the measures be applied differently depending on deer species or geographical area?
    d. Is it safe to eat non-animal products, e.g. berries etc., from the affected area?

e. Is it relevant to implement the control or preventive measures established in North America (such as advice for hunters, instructions for carcass handling etc.) in the affected areas in Norway?

2. Disease transmission between animals

a. What is the probability for disease transmission in the affected area between cervids (inter- and intraspecies)?
b. What are the modes of transmission? (e.g. via urine/faeces, via carcasses or viscera)?
    i. Does it accumulate in plants/vegetation?
c. What is the probability of transmitting the disease to animals in other geographical areas (directly and indirectly)?
d. Which long- and short term measures are relevant for preventing disease transmission (e.g. in connection with hunting, field dressing, handling at slaughterhouse, grazing, farming practices etc.)
e. How strong is the species barrier considered to be from cervids to other species?
f. Does supplemental feeding (e.g. silage or salt licks) constitute a risk for spreading CWD?
g. What are the conditions for wild and semi-domestic cervids in North America vs Norway:
    i. Are there differences that could affect disease transmission between animals (intra/interspecies?) in Norway?
    ii. Are there any differences in the genotype that could influence an animal's probability of infection (e.g. between wild and semi-domestic reindeer in Norway and between animals in Norway and North America)?
h. Is it relevant or necessary to implement the control or preventive measures established in North America (such as movement resections etc.) in the affected area in Norway?

Timeframe for phase 1 is 30 June 2016.

Phase 2

1. **Food safety**

Update of the assessment from phase 1 if necessary

2. **Disease transmission between animals**

Update of the assessment from phase 1 if necessary

3. The origin of the disease

a. What is the most likely way the disease occurred in the effected animals (spontaneous mutation, inherited, the known type from North America or a transmission from other species in the area)?

4. **Reindeer herding**

    a. Which parameters relevant to disease transmission should be included in modeling effects of different management strategies for semi-domesticated reindeer?

    b. Is there knowledge on the sex and age composition of CWD affected cervid herds in North America that may be relevant to reindeer herding if semi-domesticated reindeer should be affected by CWD

        i. Does choice of strategy depend on the occurrence of CWD in a given population?

        ii. What could be beneficial and non-beneficial side effects of changing the age composition of the herds?

5. **Wildlife management**

    a. Which parameters relevant to disease transmission should be included in modelling effects of different management strategies if such models should be developed?

    b. Are there any harvesting strategies used in CWD-infected areas in North America that can be relevant to implement in Norway (e.g. demographic composition)?

        i. Does choice of strategy depend on the occurrence of CWD in a given population?

Proposed timeframe for phase 2 is to be decided.

Attachment. Export data for the specified products for the last three years, with product breakdown, and quantities

Mandatet er oppdatert 27.06.2016.