

Trichinella: Contingency plan upon detection of Trichinella in animals in Denmark

This contingency plan deals with the appropriate measures to be taken in case of detection of Trichinella in animals of Danish origin, regardless of species.

1 Background

Trichinellosis is a serious zoonosis to humans, since the infection is difficult to diagnose; the treatment of the disease is uncertain; and in case of massive infections the disease can be fatal. The disease arises from consuming striated muscle, meat or meat products from animals infected with Trichinella that has not been cooked or frozen sufficiently.

Trichinella has not been detected in pork or horsemeat in Denmark for the last 75 years. Also, no cases of trichinellosis in humans caused by meat produced in Denmark have been detected during the same period.

Over the last 16 years, approx. 23 million pigs have been examined for Trichinella each year. In the course of these examinations in 2001, a larva suspected to be Trichinella was detected. However, the subsequent analyses did not confirm the larva as Trichinella.

Denmark has achieved to be classified as a region with negligible Trichinella risk in pig herds, in accordance with the provisions of the Trichinella Regulation. This means that the routine testing of all fatteners marketed by Denmark in the Community can be replaced by a risk-based monitoring, which means that only a specified segment of the population of pigs need be tested for Trichinella. The risk based monitoring means that all outdoor raised pigs, sows, boars, wildboars and horses are tested for Trichinella. A Trichinella survey of animals from the wild fauna is carried out.

2 Rules and regulations

Essentially, the legislation for Trichinella testing are as follows:

- Regulation (EU) 2075/2005 laying down specific rules on official controls for Trichinella in meat (the Trichinella Regulation);
- Order no. 412/2008 of 28 July 2008 (the Trichinella order).

3 Trichinella testing

Trichinella testing is carried out by laboratories approved or accredited for Trichinella examinations in accordance with the provisions of the Trichinella Regulation and the Trichinella order.

4 Measures taken upon suspicion of trichinellosis

If an examination detects a nematode larva that may be *Trichinella*, the laboratory and the Regional Veterinary and Food Control Authority shall take the measures described below:

4.1 Laboratory

- The *Trichinella* laboratory must immediately inform the official veterinarian at the abattoir which slaughtered the animal in question;
- The sample material from the analysis in question must be stabilised immediately using the procedure described in the *Trichinella* Regulation. This must be done to prevent digestion of the larva. Larvae found in subsequent analyses must also be stabilised;

4.2 Official Veterinarian

- Herds under suspicion are pointed out as those herds that has delivered pigs to the test batch in which a larva is found
- The Animal Health Unit of the Regional Veterinary and Food Control Authority is notified by the official veterinarian with a view to taking appropriate measures in herds under suspicion
- The official veterinarian shall ensure that the food chain informations for the herds under suspicion contains information on the *trichinella* suspicion
- The official veterinarian shall ensure that all pigs from the herds under suspicion are tested for *trichinella*
- All carcasses and other parts containing striated muscles that comes from those animals who are parts of the suspected test batch are kept under official seizure;
- Additional samples must be taken in order to determine which carcasses contain *Trichinella*, cf. the *Trichinella* Regulation;
- The CHR (Central Animal Husbandry Register) number of the herd or herds that supplied theinfected pigs must be identified.
- Validate the identification of the herd or herds that supplied the animals infected with *Trichinella* and confirm their identity on the basis of the samples taken;
- The National Food Institute must be contacted to agree about the shipment of the test material;
- The Danish Veterinary and Food Administration, Mørkhøj, 4th Division, must be informed of the findings;
- Meat and meat products from the farms under suspicion are traced and withdrawn from the market. The extent of the withdrawal shall be determined on the basis of the results of the *trichinella* examinations carried out on animals from the herd;
- When all investigations are concluded all carcasses from the batch of suspected pigs and any parts thereof and all meat withdrawn should be destroyed or frozen in accordance with the provisions of the *Trichinella* Regulation.

4.3 Animal Health Unit

- Official restrictions must be placed on the holding or holdings under suspicion in accordance with the *Trichinella* order
- The herd informations in the CHR-register are endorsed with information about the suspicion
- *Trichinella* examination: all pigs slaughtered from the herd in question must be tested for *Trichinella*.

- Trade restrictions: from the herd in question, no animals may be supplied as breeding stock, for fattening, or for private slaughter without permission from the Regional Veterinary and Food Control Authority;
- When the identity of the herd or herds that supplied the animals infected with *Trichinella* is confirmed the restrictions on the herds under suspicion are removed;

All trichinella examinations for identification and investigation of a suspected case must be carried out in an official laboratory.

5 Measures in case of confirmed trichinellosis

When a finding of *Trichinella* has been finally confirmed by NRL (DTU Veterinary Institute) or CRL and the infected herd found the following measures must be taken in cooperation with the Danish Veterinary and Food Administration, Mørkhøj, and the Regional Veterinary and Food Control Authority as a supplement to the restrictions established as 4.3:

- Infection tracing: the herd is visited to determine risk factors that may have caused the *Trichinella* infection in the herd, e.g. contact with wildlife or imported foodstuffs;
- If meat or meat products from the herd have been exported or traded within the EU, a rapid alert will be issued;
- The Commission will be notified of the finding of *Trichinella* larvae;
- The local medical officer and the National Board of Health will also be notified of the *Trichinella* larvae finding;
- *Trichinella* examination of the infected herd: if routine testing of all pigs from the herd has not already been implemented at the slaughterhouse, such testing must be established. Pigs slaughtered at the farm must all be tested for *Trichinella*;
- In the infected herd pest control should be intensified;
- Regional *Trichinella* examination of pig herds: if the Danish Veterinary and Food Administration deems it necessary, the *Trichinella* monitoring of slaughter animals will be extended to cover nearby properties or properties in a wider geographical area. When mapping out the possible spread of infection in an area, approved serological testing may be used;
- Intensified monitoring of wildlife: if the Danish Veterinary and Food Administration deems it necessary, the *Trichinella* monitoring of wildlife in the area will be intensified, so as to assess the risk of infection and to be able to establish appropriate measures if a high prevalence of *Trichinella*-infected animals is found in the wildlife in the area;
- Rodents captured in or around the infected farm shall be tested for *Trichinella*;
- Cats that have lived in a farm where *trichinella* is detected or cats found roaming in the vicinity of such a farm shall be killed and incinerated or disposed of in such a way as to eliminate any risk of infection. Cats are a part of the investigation of the herd;
- Dogs that have lived in a farm where *trichinella* is detected shall be tested for *Trichinella* and incinerated when they die or disposed of in such a way as to eliminate any risk of infection with *trichinella*;
- When *trichinella* is detected in a farm the measures in point 7 below should be initiated as necessary.

All trichinella examinations for identification and investigation of a suspected case must be carried out in an official laboratory.

6 Trichinella detected in different groups of food production animals

If *Trichinella* is detected in a herd of pigs or horses, the following measures may be implemented:

6.1 Measures involving herds

- Official restriction: the infected herd must be placed under official restriction under the authority of the *Trichinella* order;
- *Trichinella* examinations: all pigs originating from the herd must be tested at slaughter for a minimum period of 12 months from the last finding of *Trichinella* in the herd;
- Bio-security: The herd is examined by a veterinary officer to ensure optimum protection against *Trichinella* infection, with particular regard to pest control and feed storage.
- Contact herds: herds that have delivered or received live pigs or horses from the infected herd are placed under official restriction. This herds can house infected animals:
- Serological examinations: if warranted, approved serological examinations may also be used in determining the infection status of the herd and clarifying the extent of the spread of infection;

6.2 Domestic pigs

6.2.1.1 Fatteners

As in 6.1.

6.2.1.2 Sows/boars

As in 6.1.

6.3 Domestic pigs kept outdoors

- Inspection and monitoring of the farm will be intensified if deemed necessary;
- Fences: fencing is checked so as to possibly reduce contact with wildlife;
- Contact to wildlife: steps should be taken to reduce contact with wildlife, e.g. by reducing the fox population and by intensifying the use of bird deterrents;
- Carcasses: steps should be taken to ensure effective collection and destruction of dead pigs;
- Feeding: it must be ensured that feed is given with the least possible wastage, and in such a manner that feedstuffs are not contaminated;
- Monitoring of wildlife: if deemed necessary, the monitoring of the wildlife may be intensified with a view to clarifying whether there is an increased prevalence of *Trichinella* among wild animals in the environment.

6.4 Domesticated wild boars

As in 6.3

6.5 Horses

- Checks of feeds and feed storage to ensure the least possible contact to and contamination from wildlife;
- Check of pest control on the farm.

6.6 Other animal species

If other species of food producing animals are suspected to be a risk factor in causing infection with *Trichinella*, such species may be included in the investigation.

The risk of infection from such herds must be assessed and limited as much as possible.

7 Trichinella detected in wild animal species

If an increased prevalence of *Trichinella* is detected in wildlife in the local environment or in a wider area, the following measures may be implemented:

- Outdoor pig farming may be limited or banned for a period;
- Serological monitoring of the pig herds in the area may be introduced;
- If the Danish Veterinary and Food Administration deems it necessary, owners of pig and horse herds in the area will be informed, either directly through letters or through the news media;
- Hunters in the area will be informed and advised to carry out intensified hunting for predatory and necrophagous animals; subject, however, to the Hunting Act in force at any given time;
- Killed predatory animals should be disposed of or properly buried;
- Animals killed by traffic or found dead should be properly disposed of.

7.1 Foxes

Foxes are examined continuously for *Trichinella* as indicator animals for the prevalence of *Trichinella* in wildlife.

Sporadic findings of *Trichinella* in foxes can give rise to further measures:

- Hunters in the area will be informed and advised to carry out intensified hunting for foxes;
- Killed foxes should be disposed of or properly buried;

7.2 Raccoon dogs

Raccoon dogs are spreading from the south and from Eastern Europe and are expected to migrate into Southern Jutland over the next few years. According to available information, this species is an indicator animal for *Trichinella*, since it will host many *Trichinellae* if the area is infected.

If the raccoon dog establishes a presence in Denmark, the following measures should be taken:

- Since they are a predatory species not naturally occurring in Denmark, raccoon dogs will be hunted down and exterminated;
- Raccoon dogs that have been shot dead, killed by traffic or found dead should be tested for *Trichinella*.

7.3 Rodents

If *Trichinella* is detected in specific herds, an examination of rodents caught in or around the herd should be a part of the investigation of within that herd.

7.4 Mink

In the investigation of specific cases, mink may be included in the testing of wildlife.

Escaped mink have established themselves in the wild in Denmark. If mink held in captivity are fed non-heat-treated offal from abattoirs, they can – when they escape into the wild – form part of the *Trichinella* infection chain. Mink have been imported from areas where *Trichinella* is prevalent among mink.

If the *Trichinella* prevalence increases in an area, the catching of wild and escaped mink should be intensified and mink captured should be examined for the presence of *Trichinella*.

Slettet: ¶

Slettet: ¶