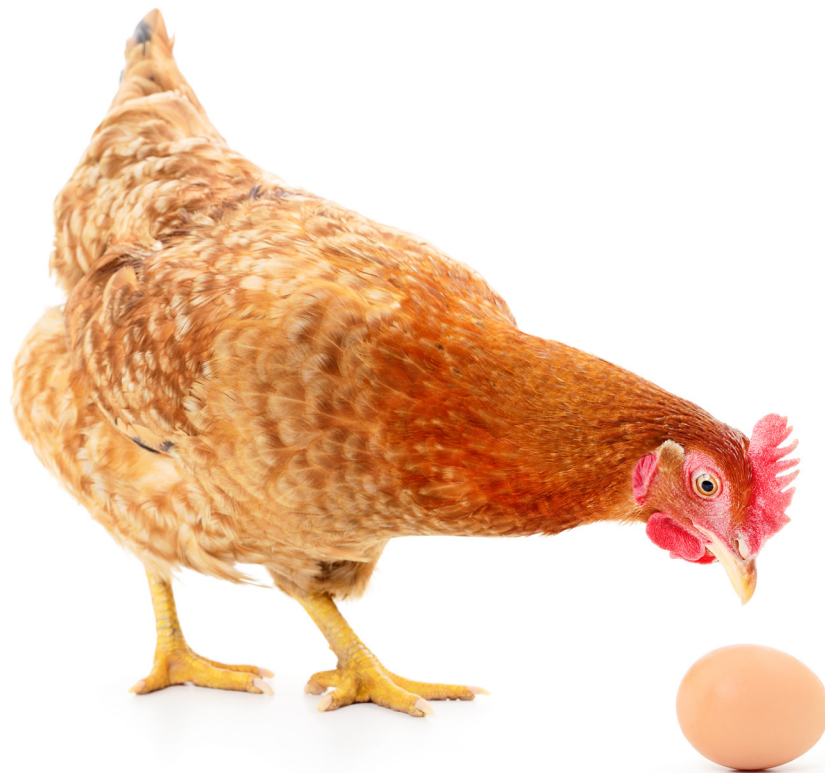




The surveillance programme for infectious laryngotracheitis (ILT) and avian rhinotracheitis (ART) in poultry in Norway 2020



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Summary

Surveillance in 2020 did not detect infectious laryngotracheitis or avian rhinotracheitis in poultry in Norway.

Introduction

The Norwegian Food Safety Authority is responsible for surveillance programmes for infectious laryngotracheitis (ILT) and avian rhinotracheitis (ART) in chicken and turkey flocks, respectively. Started in 1998, the programmes consist of serological investigations in poultry. The Norwegian Veterinary Institute has the tasks of planning, laboratory investigations and the reporting components of the programmes.

ILT, caused by gallid herpesvirus 1 (ILT virus or ILTV), is a severe respiratory disease in chickens. The disease is common in commercial chickens globally, including most European countries (1).

In Norway, there has been no detection of ILT in commercial broiler and layer flocks since 1971. However, sporadic outbreaks of clinical ILT have occurred in Norwegian hobby flocks since 1998 (2).

ART is a highly contagious infection that affects the upper respiratory passages of poultry. The disease is caused by avian metapneumovirus (aMPV), and has been diagnosed in most countries (1), including our neighbouring countries. ART was never diagnosed in turkeys in Norway; however, the national surveillance programme for ART detected antibodies against aMPV in one broiler breeder farm in 2003 and in one layer breeder farm in 2004. Diagnosis of ART in these flocks was by serology only. Since stamping out measures attempted were unable to control the spread of the infection, the national surveillance programme for ART has excluded chickens since May 2005, and recognising that ART has likely become endemic in Norwegian chickens.

Aims

The aim of the national surveillance programme for ILT in chickens and ART in turkeys is to document that the respective commercial poultry populations in Norway remain free of these infections, and to contribute to the maintenance of this status.

Materials and methods

According to the national regulations for certification of poultry breeding farms (3), blood sampling involves 60 birds from every breeding flock at least once a year. First is the screening of blood samples for Newcastle disease antibodies since Norway is a non-vaccinating country. This is followed by serologically screening 30 of the same 60 samples from chicken and turkey flocks for ILT and ART, respectively. Additional blood sampling for testing of ART also takes place at all turkey flocks at slaughter.

ILT

An indirect ELISA-test from IDvet (ID Screen® ILT indirect) screens blood samples for antibodies against ILTV. Retesting of flocks with positive results will be necessary, done after 10-14 days with at least 30 new samples per positive flock. The flock can attain negative status for ILTV if clinical signs of disease were absent, and all resampled birds were serologically negative.

ART

Screening of serum samples for specific antibodies against aMPV is by using an indirect ELISA produced by IDvet (ID Screen® Avian Metapneumovirus Indirect). Positive results will require retesting the flock after 10-14 days with at least 30 new samples. A negative status for aPMV is affirmed for the flock if clinical signs were absent from the flock, and all resampled animals were negative for antibodies against aPMV.

Results and Discussion

Table 1 shows the number of flocks and birds tested in 2020.

Antibodies screening against ILT produce positive results regularly from hobby poultry flocks. Because registration of hobby flocks in Norway is optional, the exact number and location of the Norwegian hobby poultry population is unknown, which makes systematic disease surveillance to include hobby flocks impossible. To minimise risks of disease transmission to commercial flocks, it is important that commercial poultry flocks are kept strictly isolated from hobby poultry flocks.

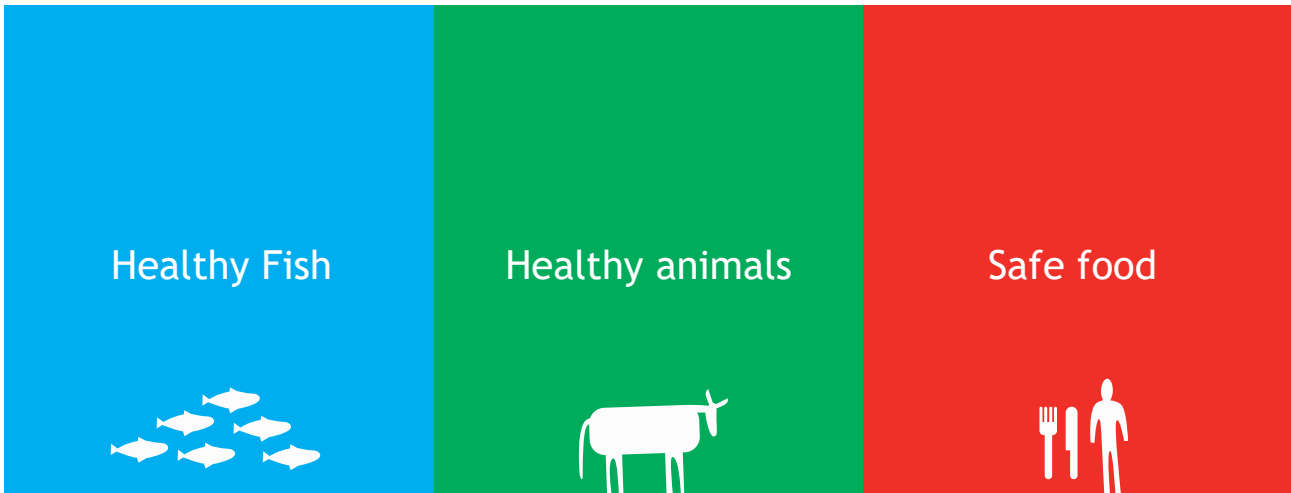
All commercial flocks sampled in the surveillance programs in 2020 were negative for antibodies against ILTV and aMPV.

Table 1. Number of flocks and birds tested in the surveillance programmes for infectious laryngotracheitis (ILT) in chickens and avian rhinotracheitis (ART) in turkeys in 2020.

Disease - production line	Total numbers tested		Flocks with seropositive samples
	Flocks	Birds	
ILT - Broilers	74	2 219	0
ILT - Layers	6	180	0
ART - Turkey	54	1619	0

References

1. David E. Swayne, Martine Boulianne, Catherine M. Logue, Larry R. McDougald, Venugopal Nair, David L. Suarez, Sjaak de Wit, Tom Grimes, Deirdre Johnson, Michelle Kromm, Teguh Yodiantara Prajitno, Ian Rubinoff & Guillermo Zavala (Eds.) Diseases of poultry, 14th ed. Ames: John Wiley & Sons. 2020.
2. Løvland A, Tharaldsen J, Jonassen CM, Heier BT, 2004. The surveillance and control programmes for infectious laryngotracheitis (ILT) and avian rhinotracheitis (ART) in poultry flocks in Norway. In: Mørk T, Hellberg H (editors). Surveillance and control programmes for terrestrial and aquatic animals in Norway. Annual report 2004. Oslo: National Veterinary Institute; 2005. p. 116-119.
3. Forskrift om sertifisering av fjørfevirksomheter av 18.11.94 nr. 1020. (Provision concerning the certification of poultry enterprises.) <http://www.lovddata.no/for/sf/ld/xd-19941118-1020.html>



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