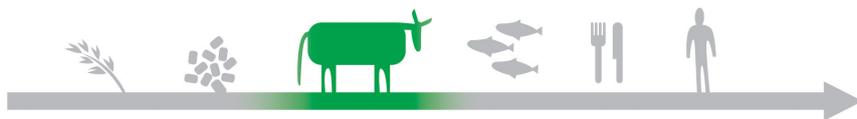
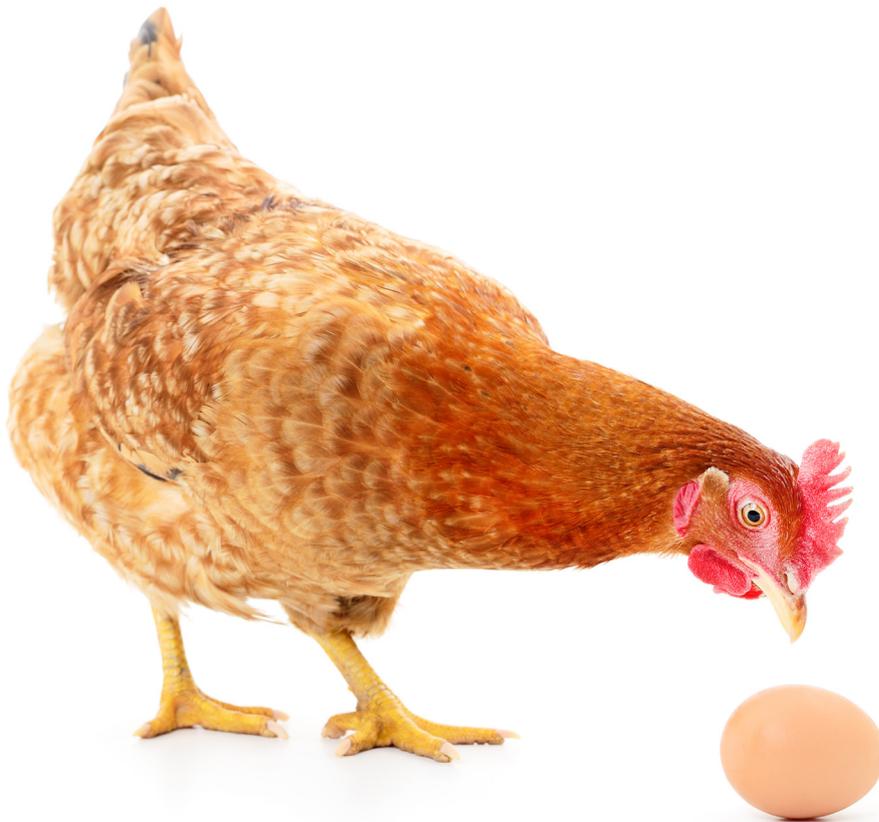


# The surveillance programme for infectious laryngotracheitis (ILT) and avian rhinotracheitis (ART) in poultry in Norway 2018

---



**Veterinærinstituttet**  
Norwegian Veterinary Institute

**Mattilsynet**

# The surveillance programme for infectious laryngotracheitis (ILT) and avian rhinotracheitis (ART) in poultry in Norway 2018

## Content

Summary .....	3
Introduction .....	3
Aims .....	3
Materials and methods .....	3
ILT .....	3
ART .....	3
Results and Discussion .....	4
References .....	4

---

### Authors

Siri Kulberg Sjurseth, Anne Nordstoga, Chiek Er

### Commissioned by

Norwegian Food Safety Authority



ISSN 1894-5678

© Norwegian Veterinary Institute 2019

Design Cover: Reine Linjer  
Photo front page: Colourbox

## Summary

Surveillance in 2018 did not detect infectious laryngotracheitis or avian rhinotracheitis in poultry in Norway.

## Introduction

The Norwegian Food Safety Authority is responsible for the implementation of the surveillance programmes for infectious laryngotracheitis (ILT) and avian rhinotracheitis (ART) in chicken and turkey flocks, respectively. The programmes, which were started in 1998, are based on serological investigations in poultry. The Norwegian Veterinary Institute in Oslo is responsible for the planning, laboratory investigations and the reporting components of the programmes.

ILT is a severe respiratory disease in chickens, caused by gallid herpesvirus 1 (ILT virus (ILTV)). The disease is common in commercial chickens in most parts of the world, including most European countries (1). ILT has not been diagnosed in commercial chicken flocks in Norway since 1971, however, clinical outbreaks of ILT have occurred sporadically 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 had never been diagnosed in Norwegian poultry until the national surveillance programme for ART demonstrated the presence of antibodies against aMPV in one broiler breeder farm in 2003 and in one layer breeder farm in 2004. Like in many other countries diagnosis of ART in these flocks was based on serology only. (1). As the use of stamping out measures was unable to control the spread of the infection, chickens have been excluded from the national surveillance programme for ART since May 2005.

## 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 are 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 samples from 60 birds are taken at least once a year from every breeding flock. The blood samples are tested for antibodies against Newcastle disease, since Norway is a non-vaccinating country. Thirty of the 60 samples from chicken and turkey flocks are included in the national surveillance programmes for ILT and ART, respectively. In addition, forty randomly selected turkey flocks are sampled for ART at slaughter.

## ILT

An indirect ELISA-test from IDvet (ID Screen® ILT indirect) was used to detect antibodies against ILTV. In cases of positive results, the flock was resampled after 10-14 days with at least 30 new samples. If clinical signs of disease were absent in the flock, and all resampled animals were negative for antibodies against ILTV, the flock was concluded as negative for antibodies against ILTV.

## ART

All serum samples were tested for specific antibodies against aMPV using a blocking-ELISA produced by IDvet (ID Screen® Avian Metapneumovirus Indirect). In cases of positive results, the flock was resampled after 10-14 days with at least 30 new samples. If clinical signs of disease were absent in the flock, and all

resampled animals were negative for antibodies against aPMV, the flock was concluded as negative for antibodies against aPMV.

## Results and Discussion

Table 1 shows the number of farms, flocks and birds tested in 2018. Besides the surveillance programme, samples taken for diagnostic purposes and the control of imported poultry were also screened for antibodies against ILT and ART.

Antibodies against ILT are detected regularly in samples 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 not known, which makes systematic disease surveillance impossible. It is thus of major importance that commercial poultry flocks are kept strictly isolated from hobby poultry flocks.

All commercial flocks sampled in the surveillance program in 2018 were negative for antibodies against ILTV and aMPV.

**Table1.** Number of farms, flocks and birds tested in the surveillance programmes for infectious laryngotracheitis (ILT) in chickens and avian rhinotracheitis (ART) in turkeys in 2018.

Disease - production line	Total numbers tested			Flocks with seropositive samples
	Farms	Flocks	Birds	
ILT - Broilers	51	60	1800	0
ILT - Layers	20	23	690	0
ART - Turkey	40	45	1350	0

## References

1. Saif YM, Fadly AM, Glisson JR, McDougald LR, Nolan LK, Swayne DE (editors). Diseases of poultry, 12th ed. Ames: Iowa State University Press; 2008.
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 fjørfeverksomheter av 18.11.94 nr. 1020. (Provision concerning the certification of poultry enterprises.) <http://www.lovdato.no/for/sf/ld/xd-19941118-1020.html>

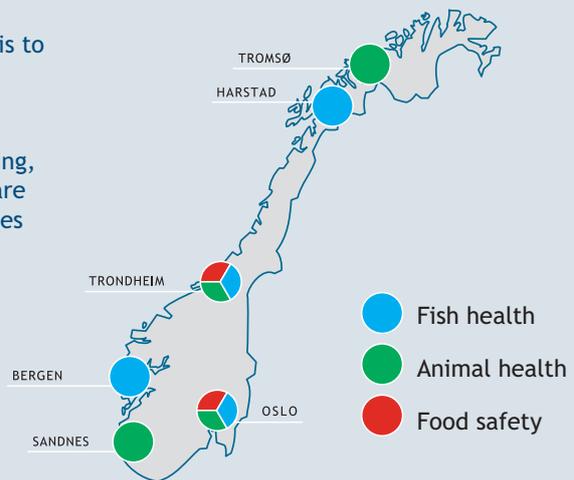
*Scientifically ambitious, forward-looking and cooperatively oriented  
– for integrated health*

The Norwegian Veterinary Institute is a national research institute that operates in the fields of animal and fish health, food safety and feed hygiene; its primary task is to provide the authorities with independently generated knowledge.

Emergency preparedness, diagnostic services, monitoring, reference functions, consulting, and risk assessments are all important areas of activity. Our products and services include research results and reports, analyses and diagnoses, studies and advice.

The Norwegian Veterinary Institute's central laboratory and administration lie in Oslo, and we operate regional laboratories in Sandnes, Bergen, Trondheim, Harstad and Tromsø.

The Norwegian Veterinary Institute collaborates with a large number of national and international institutions.



### Fish health



### Animal health



### Food safety



**Oslo**  
postmottak@vetinst.no

**Trondheim**  
vit@vetinst.no

**Sandnes**  
vis@vetinst.no

**Bergen**  
post.vib@vetinst.no

**Harstad**  
vih@vetinst.no

**Tromsø**  
vitr@vetinst.no

[www.vetinst.no](http://www.vetinst.no)



**Veterinærinstituttet**  
Norwegian Veterinary Institute