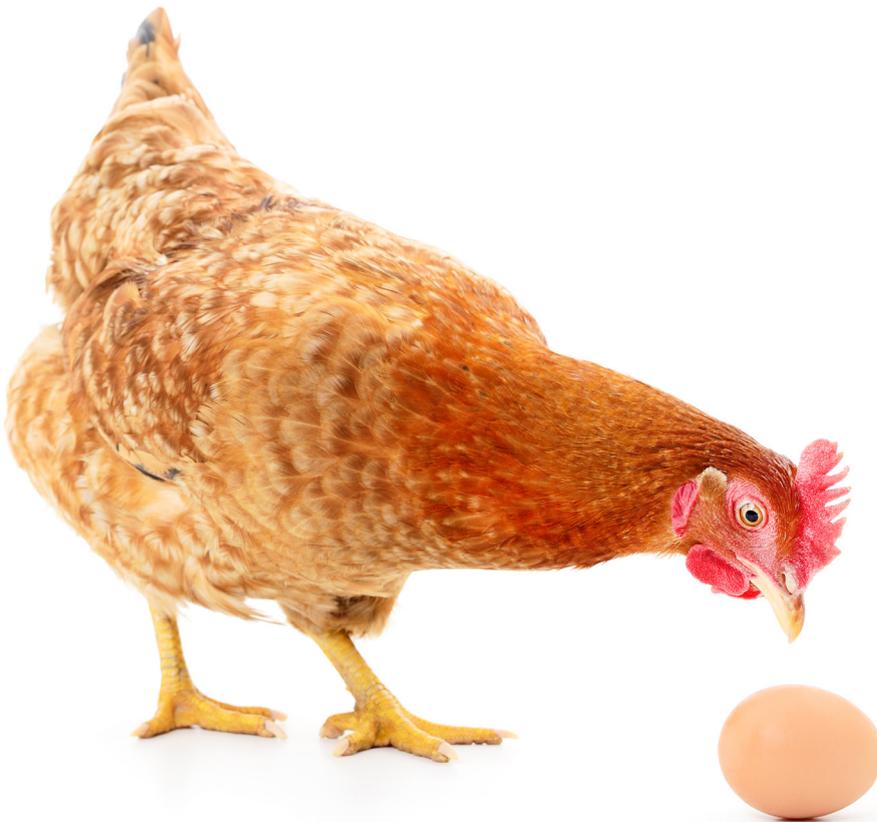


# The surveillance programme for *infectious laryngotracheitis* (ILT) and *avian rhinotracheitis* (ART) in poultry in Norway 2016

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# The surveillance programme for *infectious laryngotracheitis* (ILT) and *avian rhinotracheitis* (ART) in poultry in Norway 2016

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## Summary

Surveillance in 2016 did not detect infection with infectious laryngotracheitis or avian rhinotracheitis in poultry.

## 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. Started in 1998, these programmes are based on serological investigations. 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. The disease is seen in commercial chickens in most parts of the world, including most European countries (1). However, ILT has not been diagnosed in commercial chicken flocks in Norway since 1971, although clinical outbreaks of ILT have occurred sporadically in Norwegian hobby flocks since 1998 (2).

ART is a highly contagious infection which affects the upper respiratory passages of poultry. The disease is caused by avian metapneumovirus (aMPV), and has been diagnosed in most countries (1) and sporadically in 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. The diagnosis for ART in these flocks was based on serology only, like in many other countries (1). As the use of stamping out measures was unable to control the spread of the infection, chickens were excluded from the national surveillance programme for ART as of 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 must be taken at least once a year from every breeding flock at the farms. These blood samples are to be tested for Newcastle disease, as 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 chosen turkey flocks are sampled at slaughter for ART.

## ILT

Until April an indirect ELISA-test produced by Synbiotics (ProFLOK LT ELISA kit) was used for the testing of antibodies against the ILT-virus. From May and throughout the year an indirect ELISA-test from IDvet (ID Screen ILT indirect) was used. Flocks with single positive or inconclusive reactions for antibodies against ILT-virus were followed up by retesting in duplicate with the same test. In cases of a positive or inconclusive retest result, the flock was resampled with at least 30 new animals. If clinical signs of disease were absent in the flock, and all resampled animals were negative for antibodies against ILT-virus, a single positive or inconclusive sample in the surveillance programme was considered false positive.

## ART

All serum samples were tested for specific antibodies against aMPV with a blocking-ELISA produced by SVANOVA (SVANOVIR APV-Ab). Flocks with single positive or inconclusive reactions for antibodies against aMPV were followed up by retesting in duplicate with the same test. In cases of a positive or inconclusive retest result, the flock was resampled with at least 30 new animals. A single positive or inconclusive sample in the surveillance programme was considered false positive if clinical signs of disease were absent in the flock, and all resampled animals were negative for antibodies against aMPV.

## Results and Discussion

Table 1 shows the number of flocks and birds tested in 2016.

Besides the surveillance programme, there were additional samples taken for the purposes of diagnosing disease, production problems and the control of imported animals were also screened for antibodies against ILT and ART.

Antibodies against ILT are often found in samples from hobby flocks. It is thus of major importance that commercial poultry flocks are kept strictly isolated from hobby birds and backyard poultry flocks. The non-commercial bird populations are complex, and pose a problem for the control of this contagious poultry disease due to the difficulties associated with performing systematic disease surveillance in such bird populations.

All commercial flocks sampled in the surveillance program in 2016 were negative for ILT and ART.

**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 2016.

Disease - production line	Total numbers tested			Flocks with seropositive samples
	Farms	Flocks	Birds	
ILT - Broilers	65	79	2 370	0
ILT - Layers	17	19	570	0
ART - Turkey	43	48	1 433	0

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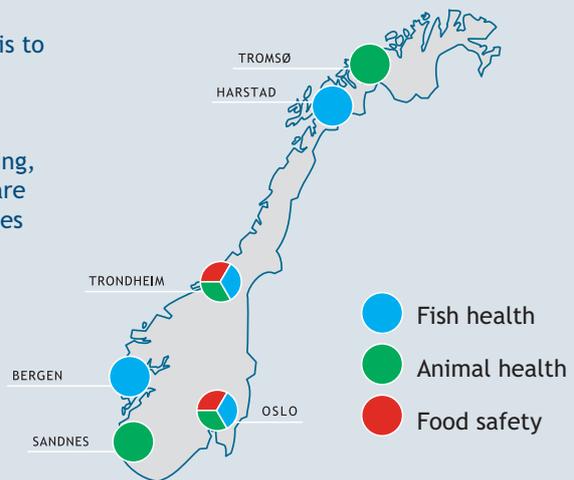
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