



Poultry Mycoplasma Surveillance:

Background

The Poultry Health Programme operated by the Department of Agriculture, Food and the Marine (DAFM) includes surveillance for poultry mycoplasmosis. Mycoplasmas in poultry, whilst of no public health concern, can present significant problems both commercially and potentially for bird welfare. Two important serotypes of mycoplasmas which can infect poultry worldwide are as follows:

Mycoplasma Gallisepticum (MG): This mycoplasma is associated with a chronic respiratory disease. Typically, it is slow in onset and can result in significant commercial losses in production. This mycoplasma can infect chickens, turkeys and game birds. Ducks and geese can also become infected particularly when associated with infected chickens.

Mycoplasma Meleagridis (MM): With this mycoplasma vertical transmission in the egg can be a significant factor. It is a disease of breeding turkeys with clinical disease possible in the progeny chicks. Again, respiratory symptoms are the main cause of economic loss.

DAFM's surveillance programme

The DAFM Poultry Health Programme seeks to provide a surveillance platform for MG and MM. As part of this programme breeding flocks of both turkeys and chickens are routinely tested for serological evidence of MG or MM (turkeys only). The plan for each poultry subgroup varies but typically flocks are subject to serological testing for these mycoplasmas at the following stages of production:

- Pre movement tests/pre-export tests (from rearing)
- Point of lay
- During production (Typically every 12 weeks)

The frequency of sampling is set out in the *'Council Directive 2009/158/EC of 30 November 2009 on animal health conditions governing intra-Community trade in, and imports from third countries of, poultry and hatching eggs'*, and the *'EU commission Decision 2011/214/EU'*. The sample size is based on a representative sampling strategy: 60 birds per house in houses of 1000 birds or more, with design prevalence of 5%.



The following number of serum samples was processed in the Central Veterinary Research Laboratory (CVRL) relating to the two serotypes of Mycoplasma as part of DAFM official sampling:

Summary of DAFM Serological Sampling			
Year	TEST	No. of samples taken	Positive
2017	Mycoplasma Gallisepticum (MG)	33,863	0
	Mycoplasma Meleagridis (MM)	1,731	0
2018	Mycoplasma Gallisepticum (MG)	30,620	0
	Mycoplasma Meleagridis (MM)	1,730	0
2019	Mycoplasma Gallisepticum (MG)	31,124	0
	Mycoplasma Meleagridis (MM)	1,899	0
2020	Mycoplasma Gallisepticum (MG)	24,601	0
	Mycoplasma Meleagridis (MM)	1,301	0
2021	Mycoplasma Gallisepticum (MG)	25,955	0
	Mycoplasma Meleagridis (MM)	1,630	0
2022	Mycoplasma Gallisepticum (MG)	29,484	0
	Mycoplasma Meleagridis (MM)	1,685	0
2023	Mycoplasma Gallisepticum (MG)	28,787	0
	Mycoplasma Meleagridis (MM)	1,653	0



Passive surveillance

It should be noted that the active surveillance outlined above is supplementary to the passive surveillance which Ireland regards as its mainstay in detecting incursions of exotic disease. This passive surveillance includes testing for *M. Gallisepticum*, *M. Meleagridis* and *M. Synoviae*.

Mycoplasmosis is a notifiable disease in Ireland, meaning that anyone who suspects that an animal may have the disease is legally obliged to notify DAFM.

Beyond disease reporting, DAFM operates a network of regional veterinary laboratories, strategically located around the country. Farmers and private veterinary practitioners (PVPs) submit large numbers of samples from sick animals to the laboratories every week.

Farmers are encouraged to report suspicions of mycoplasmosis to their local Regional Veterinary office, and to make use of their local Regional Veterinary Laboratory to aid with diagnosis of disease conditions.