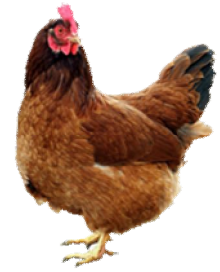


The Minster Veterinary Practice Poultry Newsletter – January 2012



HAPPY NEW YEAR TO ALL OUR POULTRY CLIENTS

Infectious Bronchitis PCR in broilers and layers

Thank you to all of you that have submitted swabs for IB PCR analyses over the last year.

MSD Animal Health has funded PCR analysis of swabs for IB and will continue to do so in 2012.

This is a summary based on submissions from problem flocks of broilers or layers, where signs have included wet litter, respiratory symptoms, poor growth and egg drops.

Results of 2011 analyses to date have been compiled and showed some interesting trends:

1. The proportion of samples containing IB QX ("Chinese" IB) or QX-like viruses has plateaued.
2. There is a lower proportion of not detected viruses- PCR technology has improved and results are obtainable from samples containing even very small amounts of RNA.
3. IB 4/91 is still a dominant strain amongst the strains detected. The 4/91 detected could be vaccinal or field strain, confirmation of origin would be possible on checking the flock vaccination history.



Figure 1

Fig. 1. Cloacal and tracheal swabs being taken for IB PCR test



IB Spray versus drinking water vaccination?

Real time PCR allows quantitation of virus, allowing comparison of the relative efficacy of different vaccination routes. Work carried out by MSD Animal Health and X-Ovo demonstrated that **there was more vaccine antigen detected in birds vaccinated by the spray route** compared with the drinking water route. Therefore, vaccination through spray for IB is the preferred method of vaccination.



NEWS

Congratulations to Charlotte Simmonds, our Howton, Herefordshire receptionist who gave birth on the morning of 4th December, 2011. She states "George Henry Simmonds born 00.40am, 7lb 8.5oz, no pain relief. Born at home with a swift delivery mother and baby doing very well xx"



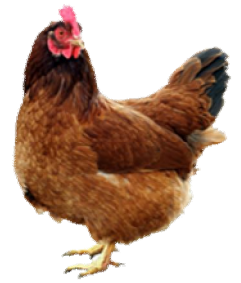
(George Henry Simmonds)

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Eggshell Apex Abnormalities (EAA) in Great Britain

The term 'EAA', also known as 'glass top eggs', refers to a characteristic egg shell lesion, comprising a well demarcated region of thin, soft shell at the apex (or sharp end) of an affected egg. This abnormal shell may be easily broken (Figures 2 and 3).



Fig 2. Photograph contrasting eggs affected (top two rows) and unaffected (bottom rows) by EAA lesions. Note the variation in the surface area of shell affected, but lesions confined to the apex. (source AHVLA).



Fig 3. Egg showing the typical EAA lesion (source AHVLA).

EAA lesions have been associated in the field with infection of the hen's oviduct by certain strains of *Mycoplasma synoviae* (Ms) resulting in the production of abnormal eggs.

Recent experimental studies have reproduced the condition by infecting laying hens with infectious bronchitis virus (IBV) and certain strains of *Mycoplasma synoviae*. Reasonable protection was also demonstrated with a live MS vaccine.

One hypothesis is that certain strains of Ms might have a tropism for the hen's reproductive tract, where colonisation (under some circumstances) leads to the production of abnormal eggs with EAA.

In chickens, other endemic conditions caused by Ms (joint disease and/or subclinical respiratory tract infections) are well described. Conversely, EAA is a relatively novel condition.

The range of abnormal egg production can vary from 1-2% up to 25% in an EAA affected flock, and typically continues for the remainder of the laying period following onset. Affected flocks may be depleted early if they become financially unviable.

There have been now several reports of this condition in different areas of the UK. Please, contact us if you think that your flock may be suffering from this condition.

Turkeys

ORT in turkeys continues to be an ongoing problem in unvaccinated turkeys, affecting them at an early age than previously reported. The vaccination to prevent this condition is showing promising results.



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