Mycoplasma in layers costs time and money

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Today, more and more farmers are concerned about mycoplasma infections, as they can cause major economic damage to layer farms.

Acute infections with Mycoplasma synoviae (MS) and M. gallisepticum (MG) result in drops in egg production of 10-20%, especially around point of lay or at peak laying, as well as reducing feed conversion efficiency (FCE) and increasing hen mortality.

Even chronic infections of M gallisepticum can reduce production by 5% (15 eggs/hen) and squeeze profit margins.

Primarily, the infections occur in situations where reservoirs of infection already exist, for example in multi-age flocks or in endemic areas, where many layer facilities are in close proximity to each other. In these cases biosecurity is difficult to sustain, as airborne infection is common.

With the hectic schedules of modern farmers, there is almost not enough time to manage everything and to tackle these menaces.

Widely spread among layers

Mycoplasma infections are common in laying hens. In the UK a recent survey showed that 83% of flocks were infected with M. synoviae. M. gallisepticum is less common but usually more serious.

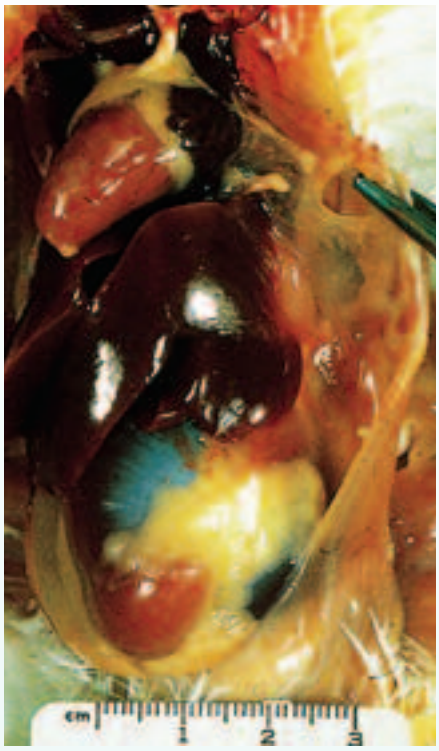
M. synoviae is less damaging but it also can cause a drop in production in the acute phase, which commonly occurs at the main stress periods of point of lay and approaching peak production, so performance is not quite optimal.

Coincidental virus infections, which often flare up at this time, such as infectious bronchitis virus, can also compound matters

Difficult to diagnose

Many producers monitor mycoplasma status at point of lay and subsequently, especially if they have a history of the infection or it is a multi-age site.

However, positive results by rapid slide agglutination test (rapid plate test) and by ELISA test usually indicate the challenge occurred respectively, one or two weeks earlier, so often the initial infection and early damage has taken place some time prior to detection.



Mild airsacculitis causing egg production drops and feed loss.

In many parts of the world, it is difficult to produce eggs without mycoplasma infections. Frequently, it is difficult to trace the source of an infection without resorting to complex laboratory tests.

The chronic nature of the infections and the inability of both vaccines and antimicrobials to eliminate them may have caused farmers to become used to living with the disease.

In many cases, ineffective prevention programmes have only led to increased costs, especially where resistance has developed to the traditionally used products.

Furthermore, the limited duration of protection by some vaccines has brought about infections later in life and a consequent drop in egg production.

Some products leave excessive residues in the eggs and require a withdrawal period, which means eggs should be discarded for several days.

Treating laying hens

Tiamutin watersoluble medication of layers for three days per month at 0.0125 and 0.025% in the drinking water or 200 and 400ppm in feed results in prevention and treatment of mycoplasma infections respectively. As the Tiamutin levels are in excess of most strains of M. gallisepticum and M. synoviae, it will protect the bird from damage to its lungs, reproductive system and septicaemia.

Tiamutin Premix is regularly used in feed at 20ppm continuously to improve egg production and feed conversion efficiency (FCE). An improvement on average of 4.5% has been consistently achieved for both parameters.

An alternative approach was to use Tiamutin at 50ppm in feed for one week each month. This was shown to improve egg production by 5.7% but FCE was improved by 0.9%. Tiamutin is ideal for laying hens because of its benefits:

- Zero withdrawal in eggs.
- High activity against both MG and MS.
- Improves egg production and FCR.

Although the treatment levels of Tiamutin are effective in inhibiting mycoplasma they have been shown to be below the EU maximum residue limit (MRL) of 1000µg/kg for eggs, by validated chemical assay of tiamulin, resulting in a zero day withdrawal time for eggs. ■