

Pneumonia in Sheep - Part 1

Pneumonia in sheep can be separated into four main groups:

- Pasteurellosis
- Atypical and bacterial pneumonia
- Parasitic pneumonia
- Viral pneumonia

Pasteurellosis is caused by a few specific bacteria and can show itself either as a depressed sheep with breathing difficulties which is unwilling to eat, or most commonly as sudden death! These deaths can appear to be sporadic in nature, however it can affect 10 to 20% of your flock, depending upon its situation and stocking density. Any sheep which survive infection usually take a significant time to recover and may well remain unthrifty. The disease is often brought on following periods of stress such as dipping, starvation (possibly following hard weather), or indeed any routine handling for management purposes.

The best way to diagnose this disease is through a postmortem inspection as the signs are usually fairly characteristic as long as the postmortem is carried out soon enough after death. We would recommend contacting us immediately if you have any concerns regarding a sudden death.

As they say, prevention is better than cure, and in this respect we are fortunate that there are a number of vaccines on the market against Pasteurellosis including combination vaccines that protect against clostridial diseases as well as pasteurella. Ideally these vaccines should be used together with management strategies designed to minimise stress. It is also important to avoid mixing sheep of different ages in the same airspace.

If the disease is diagnosed in your flock following a postmortem inspection, all is not lost. Following discussion with your veterinary surgeon, treating the rest of the 'at risk' flock with long acting antibiotics as well as vaccinating can be economically viable.

Look out for Atypical and Bacterial Pneumonia in the next Newsletter!

Coccidiosis

Coccidiosis is a protozoal disease that invades the cells of the intestines of sheep and cattle. The majority of the life cycle of this parasite occurs within the intestines of the host animal. This results in the production of thousands of oocysts which are shed in the faeces. The oocysts, once shed, require optimum temperature and moisture in order to mature and become infective. These conditions can occur in straw yards/pens as well as at pasture in spring. Infection occurs via the ingestion of infective oocysts in contaminated faeces.



Coccidial parasites invade the cells of the intestinal mucosa resulting in damage which in turn causes poor digestion and reduced water reabsorption. Clinical signs can vary from decreased weight gain in sub-clinically affected animals, through to bloody diarrhoea with straining, weakness, weight loss and increased susceptibility to other infections.

These signs occur relatively late on in infection once damage to the intestines has already occurred.

Coccidial oocysts will be present in most environments and a low level of exposure at a young age will result in resistance against disease. Disease only occurs if animals are subject to heavy infections or if their resistance has decreased. As lambing progresses, the burden of oocysts in the pens or at pasture will increase resulting in clinical disease in lambs born later in the season, as they are exposed to higher infection pressures.

The peak incidence of coccidiosis in lambs therefore occurs in late spring/early summer as there are a large number of susceptible individuals at this time and a high burden of oocysts available.

Prevention is the most important strategy in the control of coccidiosis. Below are the important points to consider when it comes to control:

- Recognise that coccidiosis poses a constant threat to young lambs.
- Employ management practices that reduce contact with faecal material - bed up pens frequently, reduce stocking densities, use well drained pastures.
- Reduce contamination of water sources and feed with faecal material by using water and feed troughs raised above ground level, and moving feed points around regularly.
- Limit contact between animals of differing ages (ie: early and late lambs) by using all in/all out policies for nursery yards.
- Avoid over-grazing pastures as this will force animals to graze down to the roots of plants where they may pick up a higher number of oocysts.
- Use management practices that minimise stress in young animals, as stress will increase their susceptibility to disease.

The most important role of treatment in already infected animals is to reduce severity of disease and reduce the number of oocysts shed (which will in turn decrease the risk of new infections). As mentioned earlier, by the time clinical signs are seen, damage has already been done to the intestines and killing the parasite at this stage will not reverse this damage. With time the damaged intestine will recover.

Coccidiosis treatment acts on the early stages of the coccidia life cycle - which occurs before clinical signs are seen. A strategic plan of preventative treatment based on previous history of disease before clinical signs occur is much more effective and economically viable than reactive therapy in already infected animals.

Most coccidiostatic drugs available for prevention and treatment will allow the animal to develop immunity against coccidiosis whilst preventing intestinal damage and economic losses.

Treatment of clinical cases of coccidiosis includes antibiotic therapy to prevent secondary infection, oral fluids with electrolytes to reduce dehydration, as well as coccidiostats to reduce disease severity and oocyst shedding. Affected animals should also be isolated to reduce the spread of infection to others.

If you suspect coccidiosis is causing problems in your flock please contact one of our vets for advice.