

Significant lamb losses lead to new proactive approach at lambing time

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Downward market pressures forcing sheep farmers to intensify by increasing flock size means a simultaneous rise year on year of the threat of coccidiosis at lambing time. That's according to vet Paul Wood at Cambridge Farm Animal Veterinary Services, University of Cambridge.

"The 2015 lambing season saw high levels of coccidiosis in many flocks, particularly those who had put on extra sheep and were lambing ever larger numbers indoors. With finished lamb prices as much as 20 percent down on last year, increased intensification threatens higher levels of coccidiosis in the coming months too."

A change in policy at lambing time now potentially saves one of Paul's clients, Cambridgeshire sheep farmers Edward and Dudley Morgan, thousands of pounds each year. Losing up to five percent of their lambs in one season to coccidiosis alone was the catalyst for them to shift to a proactive approach to tackling coccidiosis throughout the lambing period.

Edward Morgan explains: "Like many farmers, we reacted to disease as it occurred, coccidiosis being no exception. Lambs displaying black, dirty bottoms, or looking subdued and slab sided with dull coats were drenched to treat the problem. The difficulty we found was knowing when exactly to treat, going in either too early or too late with a drench didn't work. The final straw came when the disease claimed more than £2,000 worth of our year's finished lambs."

Seeking advice from both vet and feed merchant, Mr Morgan switched to giving lambs access to decoquinate from birth to 12 weeks. Since adopting this regime, lamb mortality from coccidiosis has reduced to zero, with no signs of ill thrift associated with subclinical disease. "It is satisfying to observe lambs using the buckets regularly almost as soon as they are mobile, long before they are old enough to consume significant amounts of creep feed," adds Mr Morgan.



Edward and Dudley Morgan

A disease of young lambs, December to April are key times for occurrence of coccidiosis. Lambs are most susceptible at 4-12 weeks of age, after which they develop natural immunity. Coccidiosis is a disease caused by parasitic protozoa irreversibly damaging the lamb's gut by invading and reproducing in the small and large intestine wall. Coccidial oocysts (eggs) are shed from ewes in their faeces, picked up from the environment and swallowed

by lambs. Oocysts release the next parasitic stage (sporozoites) which enter the gut wall where they develop, multiply and burst out, destroying intestinal cells and eventually passing out in large numbers as fresh oocysts in the lamb's faeces. This cell destruction impairs absorption of nutrients by the lamb, repressing growth.

The coccidian life cycle in sheep takes 2-3 weeks. Initial sub-clinical signs (weight loss, listlessness, reduced feed conversion ratio, decreased immunity to other disease) occur as the parasite multiplies in the small intestine. After 10-15 days coccidian enter the large intestine presenting clinical signs (bloody diarrhoea, straining and discomfort) before being excreted in faeces from days 15-20.

According to Mr Wood, coccidiosis can occur on even the cleanest and most well managed farms. Key risk factors augmenting its incidence include dirty troughs and water bowls, inadequate bedding, high stocking rates, wet and churned up dirty pasture, mixing various ages of stock, stress (from weaning or handling) and introducing bought in animals. A disease of intensification, coccidiosis is exacerbated by lambing indoors and grazing on heavily oocyst-burdened ground.

Mr Wood believes focusing on prevention largely through management is a more economical and effective approach than treatment of clinical cases, coccidiosis being hard to control once a problem develops on farm. Lambs suffering from coccidiosis become susceptible to secondary disease due to reduced growth rate and impaired immune function caused by the coccidian. "Coccidiosis opens the gate for bacterial infection" he adds. "On a positive note, coccidian species are host specific, so rotational grazing by different cattle helps clean the pasture for sheep."

At Cambridge Farm Animal Veterinary Services, clients are encouraged to make use of a free faecal egg count service, ideally combined with coccidian speciation if the oocyst counts come back high as many species are non-pathogenic. Other hidden problems such as wormer resistance can be picked up simultaneously.

Mr Wood believes many farmers are aware of the risk of coccidiosis but he is unsure as to how many realise it is worth preventing. "In some cases I've had farmers losing up to 10% of their lamb crop before they address the issue. With coccidiosis it's not just deaths but the loss of revenue associated with slower growth rates that greatly impact on the farm business. The disease can be compared to an iceberg, with the visible part being the clinical signs and the much larger invisible part being the sub-clinical signs."

According to vet Colin Penny from Zoetis, the use of decoquinate as introduced by the Morgans is sound pre-emptive husbandry. "The treatment acts at the beginning of the coccidian life cycle and inhibits the excretion of oocysts into the environment. Because it is used every day in the feed, the treatment has a daily acting, non-antibiotic effect with the added benefit of no meat withdrawal period. Decoquinate also allows some natural immunity to build up in the animal."

French trials have shown controlling coccidiosis daily with in feed decoquinate increases the growth rate of lambs, even on farms with no clinical signs of coccidiosis¹. The trial carried out over two lambing seasons on groups of lambs with no clinical signs of coccidiosis showed animals given decoquinate medicated feed had increased total live weight gain from birth to 84 days, of between 1.4-2.8kg and dramatically decreased oocyst shedding, compared to lambs on non-medicated feed.

Mr Penny advises farmers consult with both vet and feed supplier to achieve correct prescription dose rates. He goes on to explain that as well as feeding directly to lambs, decoquinate can be fed to ewes six weeks prior to lambing and one week post lambing, to reduce maternal faecal excretion levels to the new-born lambs' environment. He adds that decoquinate can also be used in the prevention of toxoplasmosis in ewes when fed during the last 14 weeks of pregnancy.

1 - Ranoux et al, 2010. Use of decoquinate: Its influence on the growth of indoor Ile de France lambs, Poster at World Buiatric Congress, Chile. Deccox® 6% Premix for Medicated Feeding Stuff for Sheep & Cattle contains 60 g/kg decoquinate. Indicated for the treatment and prevention of coccidiosis in lambs and calves. For information about side effects, precautions, warnings and contra-indications for this product, please refer to the product packaging. Keep out of the sight and reach of children. For animal treatment only. For further information, please contact Zoetis UK Limited, Walton Oaks, Dorking Road, Walton on the Hill, Surrey, KT20 7NS. Customer Support: 0845 300 8034, www.zoetis.co.uk. Further information is also available from the product SPC. POM-V. Use medicines responsibly – www.noah.co.uk/responsible. AH529/15.