



# The GEORGE Farm Vets

## Mastitis

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Mastitis in ewes can be a significant cost to a flock, both economically and in terms of animal welfare. Cases vary in severity, but all are ultimately bad news in the long term as even if ewes appear to recover, damage to the udder can continue to affect future lactations. Mastitis in sheep usually fits into one of three categories.

The picture below shows a case of gangrenous mastitis. This is generally the most severe presentation of mastitis. Onset tends to be sudden, with ewes becoming noticeably sick within 12 hours or so. Affected ewes tend to separate themselves from the flock and show little interest in their lambs. They often appear dehydrated and will likely have stopped eating. The key feature marking out this form of mastitis from others is the usually extensive discolouration of the udder underneath the skin. This may extend beyond the udder and onto the abdomen. In almost all cases this condition will ultimately result in the sloughing of the tissues around the teat. Whilst, in theory, treatment is possible, very few cases survive and animals should be euthanased to protect their welfare.



Acute mastitis can occur sporadically in housed and grazing ewes. The presenting signs of acute mastitis are similar to those of gangrenous mastitis without the extensive discolouration of the skin. Acute mastitis cases usually have at least one painful and swollen teat. Milk itself may appear normal or may have clots. Sometimes damage to the teat from lamb teeth is visible.



Treatment of acute cases involves regular stripping of the quarter, injectable amoxicillin (Betamox) and anti-inflammatory to reduce long lasting damage to the teat. Taking milk samples from acute cases for bacteriology can help establish the cause of mastitis and advise management to avoid such cases.

If an acute case does not completely resolve, the result will be a chronic mastitis. These long-standing infections of the udder almost invariably cause abscesses to form in the milk-producing tissue and will result in permanent damage. Over time, these changes can usually be felt externally as hard areas in the udder. Before breeding, all ewes should be checked for chronic mastitis and any which have it should be culled as they will struggle to feed lambs.

The bacteria from chronic mastitis cases can also spread on occasion, often ending in the lungs and causing pneumonia.

There are a number of risk factors for a ewe getting mastitis and avoiding these can really help to keep your mastitis levels down. The rate of mastitis on UK farms varies between 0% and 6.6% so managing risk factors can have real benefits to the health of the flock. Poor body condition, poor hygiene at lambing and underfeeding during pregnancy can all increase a ewe's risk of mastitis. The more lambs reared the higher the risk and lambing indoors also increases risk of mastitis. Udder confirmation can also play a role in mastitis rates.

The costs of mastitis are significant as the disease has an impact on many factors affecting profitability. On top of the obvious direct cost of treatment, costs for ewe mortality and culling are considerable with 4-6% of a typical flock's culls being due to udder related issues. Additionally, ewes with mastitis have reduced milk quantity and quality which can have a knock-on impact on lamb growth rates.

Management to mitigate the costs of mastitis can have a great impact on farm profitability. A thorough assessment of breeding, nutrition and lambing management can have a significant influence on mastitis rates. Medicinal options that can be considered include vaccination, to reduce numbers of infections or treatment at weaning with long acting antibiotics to prevent infections becoming chronic and sparing ewes from culling. As with all flock health issues, prevention is invariably better than cure.



Whilst mastitis is an important and costly disease of sheep, it is not the only factor to consider in your health planning. Lameness is estimated to cost around £90 per affected ewe and some flocks see very high numbers affected. Recent studies have shown routine foot trimming and excessive foot bathing increase rates of lameness in the flock, as these activities can cause favourable conditions for infection with bacteria causing footrot. Recent weather conditions will not have helped at all, as wet feet are more susceptible to infection. The outcome in cases of footrot are best when identification of the condition is early and effective treatment of injectable amoxicillin is given. Affected animals should be isolated to prevent spread. Once again there is a vaccine, Footvax, available for the prevention of footrot cases in sheep and has been predicted to be cost effective in any flock in which 2% or more of animals are infected.



**Footvax™**  
**For Footrot**



Another very costly problem in which vaccination is an effective part of management is abortion. Infectious abortions in sheep can be devastating to a lambing season and vaccinating against the two most common causes, Enzootic abortion and Toxoplasma, can protect your flock. Toxoplasma, in particular, is seeing an increase in diagnosis and **96% of UK flocks are thought to be infected** to some degree. Vaccinating ewes and ewe lambs with Toxovax before tupping will provide protection against Toxoplasma induced abortions, ewe lambs can be done from 5 months of age. Vaccines need to be given at least 3 weeks before tupping, so planning is essential!

We hope you have had a successful lambing season and please get in touch with us for any more information or advice on any of the subjects in this newsletter.

**Nick**

