Controlling enzootic abortion with vaccination

In order to reduce antimicrobial use on farm, sheep producers are being encouraged to change to vaccination to control enzootic abortion, putting an end to whole-flock antibiotic treatment of ewes in late pregnancy.

Caused by the bacteria *Chlamydia abortus*, enzootic abortion of ewes (EAE) is the most commonly diagnosed cause of abortion and is responsible for around 50% of sheep abortions in the UK. Bacteria are transmitted sheep to sheep, as pasture or bedding is contaminated by aborted or infected lambs. Once a flock has the disease it is unlikely that it will disappear due to its persistence in carrier sheep. Once a ewe is infected she is more than likely to abort in the next pregnancy, ewes that abort due to enzootic abortion should be culled.

In the face of an abortion storm, producers’ only option is to isolate aborted sheep for at least three to four weeks to reduce the spread. An injection with a long-acting oxytetracycline antibiotic will reduce the risk of further abortions of other ewes in the group, ideally after a lab test confirms diagnosis. However, many producers are choosing to use unnecessary whole flock antibiotic treatments as a preventive measure year after year, which could contribute to antimicrobial resistance.

Reducing antimicrobial use

There is a common misconception that the high-risk behaviour of using antibiotics just in case of abortions and without any diagnosis is a cheaper way to treat abortion than vaccination. However, ewes will only need to be vaccinated once, so the £2-3 cost can be spread over their productive lifetime. This is less than the cost of repeated antibiotic treatments. Any flock which buys in replacement ewes is at risk of introducing EAE and is advised to vaccinate for cost-effective prevention rather than risk the expense of disease. Pharmaceutical companies’ data shows that around one million doses of vaccine are sold per year, but around three and a half million replacement ewes enter the UK flock every year.

If switching to vaccination, vets will be able to work with producers to update their health and treatment plan. The vaccines that are currently available in the UK are:

- MSD’s Enzovax
- CEVA’s Chlamydia
- Benchmark’s Mydiavac

Ewes need to be vaccinated at least four weeks before they go to the ram, as options to vaccinate in-lamb ewes are limited. Together with robust biosecurity measures, changing to vaccination can reduce antibiotic use, reduce lamb losses and maximise ewe productivity.

For more information see the BRP manual, [Reducing lamb losses for better returns](#) or view our infographic for more information about switching to vaccinating ewes to control enzootic abortion [here](#).