

Help prevent enzootic abortion  
or prepare for future losses.

**FOR FLOCK'S SAKE!**  
**VACCINATE!**  
PROTECT YOUR FLOCK & FINANCES

Ewes know it makes sense.



# EAE – WHAT’S THE RISK?

Enzootic abortion (EAE), caused by the bacteria *Chlamydophila abortus*, is the most commonly diagnosed cause of abortion in UK sheep<sup>1</sup>, costing the UK sheep industry up to £20 million annually<sup>2</sup>.

## THE IMPACT OF EAE

Lamb losses of up to 30% in one season<sup>3</sup>

**PLUS**, the wasted cost of:

- Getting the ewes in lamb
- Supporting those pregnancies (feed, scanning)...

**PLUS**, the cost of the abortion itself:

- Clean up afterwards
- Carcass disposal
- Vet/disease investigation
- Treatment of ewes

**PLUS** the hassle and stress of dealing with aborting ewes during lambing.



Take it from farmers who know...

“We had enzootic abortion 10 years ago and since then we have vaccinated. It’s as simple as that – there’s no chance we’re going through all that again”

“A neighbour got enzootic abortion and it was like a bad snowstorm – just kept getting worse and worse and all he could do was sit there and weather it”

“Why anyone wouldn’t protect themselves against this disease when ewes are at risk is beyond me!”

# MOST FARMS ARE VULNERABLE

Infection is primarily spread through the aborted material and reproductive fluids of infected ewes, and bacteria can be shed for up to 3 weeks after abortion<sup>3</sup>.

However, there are many potential ways that EAE infection can enter a flock<sup>4</sup>:

**Bought in/replacement ewes**

- Environment (the bacteria can last weeks in cold conditions<sup>5</sup>)
- Neighbouring flocks (if grazing adjoining land)
- Wildlife
- Escaped sheep



**Even the strictest biosecurity cannot 100% protect against the risk of EAE infection!**



Enzootic abortion is a zoonotic disease, meaning that it is also contagious to humans and can cause flu-like symptoms.

It is especially dangerous for pregnant women as it can cause miscarriage. The bacteria can remain in the environment for weeks (and much longer in freezing conditions<sup>5</sup>), so pregnant women should avoid all contact with sheep, especially during lambing, but also with anything (e.g. clothing) that could have become contaminated.

**VACCINATION  
ALONG WITH STRICT  
BIOSECURITY IS THE  
BEST PROTECTION  
AGAINST THE  
IMPACT OF EAE.**

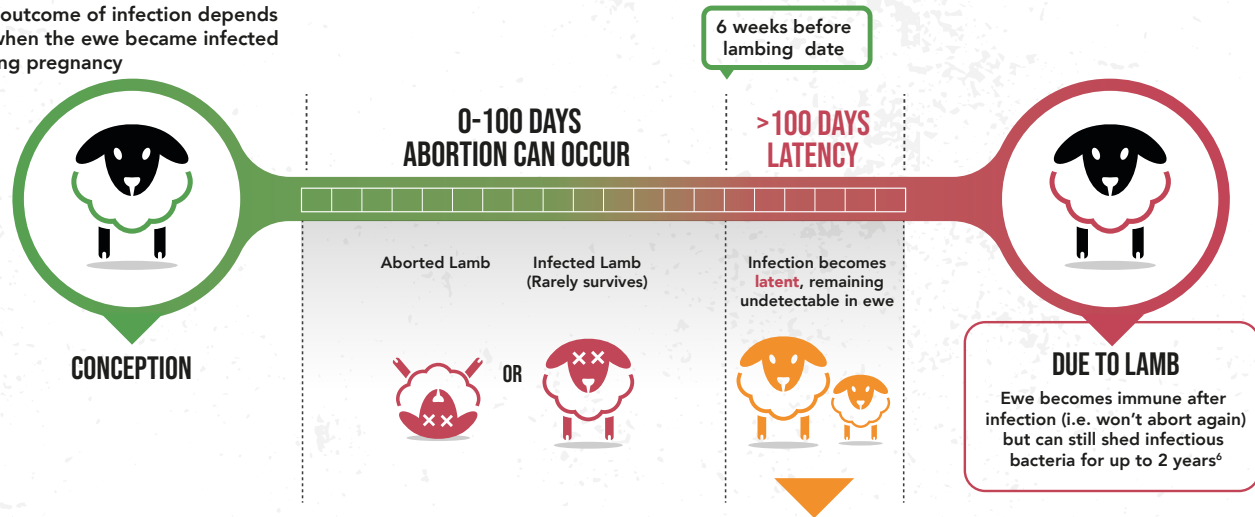


# A DISEASE FULL OF SURPRISES

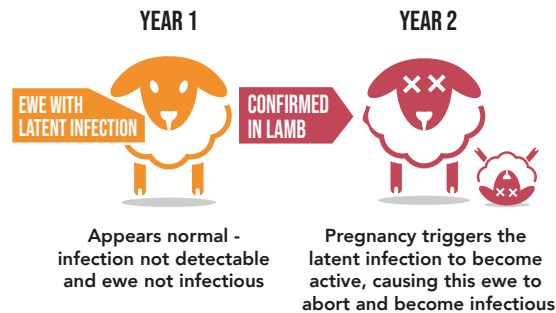
Enzootic abortion is not as straightforward as **infection = disease**:

## PREGNANT EWES BECOMES INFECTED

The outcome of infection depends on when the ewe became infected during pregnancy



Latent infection can lead to unexpected problems, as it causes abortion (and further spread) in the year following initial infection:



## Which ewes can have latent infection?

- Ewes in the flock last year that lambed without incident
- Homebred replacements infected as lambs by foetal fluids, etc.
- Bought in/replacement ewes/ewe lambs - these animals can even be legitimately sold as 'EAE vaccinated' but vaccination will have limited effect if they are already latently infected

# WHAT EAE CAN LOOK LIKE

Because of its complicated disease process, the effects of enzootic abortion can appear in different ways:

What is seen on farm?	What's going on?
Outbreaks - sudden and high number of abortions of up to 30% <sup>3</sup>	Usually as a result of infection introduced to animals that have not been previously exposed, so have no immunity (naïve)
'Outbreak' following an outbreak the previous year (even despite vaccination)	Ewes that have latent infection from last year are now aborting (and becoming infectious to any naïve animals)
Bought in 'vaccinated' animals aborting	These animals may have been vaccinated when they were already latently infected
Moderate levels (above 2%) of ongoing abortions year on year	Can be as a result of multiple scenarios: <ul style="list-style-type: none"> <li>• A few naïve animals (e.g. first time lambers or bought in animals) in an otherwise immune flock</li> <li>• Lapse in vaccination of naïve animals that are introduced to the flock</li> <li>• A few latently infected animals</li> <li>• Low levels of EAE can rapidly become an outbreak in flocks with naïve animals</li> </ul>

**Vaccination is the best way to stop any nasty surprises from enzootic abortion.**

Abortion rates of 2% or more suggest an infectious cause, create grumbling, ongoing financial losses and could represent a ticking timebomb.

# VACCINATE TO TAKE A ZERO-TOLERANCE STANCE ON ENZOOTIC ABORTION

Don't be vulnerable to EAE!



Vaccination =

- **Zero tolerance** on production/profit loss
- **Zero tolerance** on compromised animal welfare
- **Zero tolerance** on wasted time
- **Zero tolerance** on worry and stress

Vaccination provides:

- ✓ Protection against enzootic abortion in non-infected animals<sup>5</sup>
- ✓ Reduced excretion of infectious *Chlamydophila abortus* bacteria in infected animals<sup>7</sup>

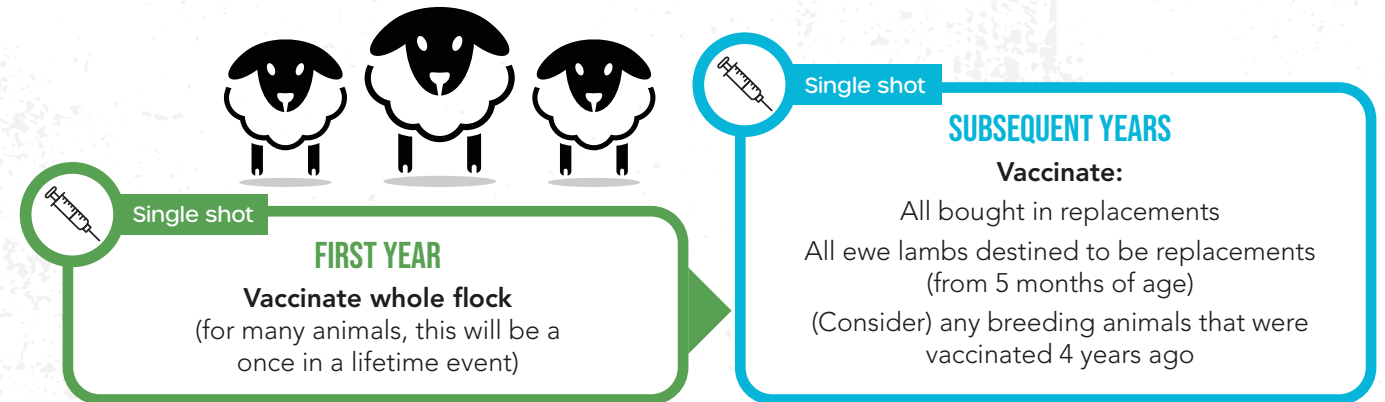
At your convenience:

Cevac can be administered at any time between 4 months and 4 weeks before tupping, allowing vaccination with Cevac to fit your schedule



## ONGOING PROTECTION:

It's important to stick to an ongoing vaccination programme to maintain protection:



Your vet will work with you to advise on the most effective way to implement a vaccination programme suitable for your flock. Remember that some abortions may occur the year following vaccination, due to latent infection.

It is also important to remember that EAE isn't the only infectious cause of abortion in sheep and strict hygiene and biosecurity remain vital before and during lambing:

- Maintain good hygiene of lambing areas between ewes
- If abortion happens, send aborted material samples for diagnosis before disposing of remaining aborted material safely
- Destroy all bedding from the pens of ewes that have of aborted and disinfect lambing area afterwards
- Do not foster lambs onto ewes that have aborted
- Keep sheep feed secure from cats and rodents



# FOR FLOCK'S SAKE! VACCINATE!

## PROTECT YOUR FLOCK & FINANCES



#### References:

1. Veterinary Investigation Diagnosis Analysis (VIDA) report, APHA and Scotland's Rural College, 2018
2. Milne C.E., *et al.* Epidemiological modelling of chlamydial abortion in sheep flocks, *Veterinary Microbiology* (2008), doi:10.1016/j.vetmic.2008.09.032
3. Mearns L. Abortion in sheep - Investigation and principal causes. *In Practice* (2007) 29, 40-46
4. Longbottom D., Evaluation of the impact and control of enzootic abortion of ewes. *The Veterinary Journal* 195 (2013) 257-259
5. Essig A., *et al.* Chlamydia abortus: New Aspects of Infectious Abortion in Sheep and Potential Risk for Pregnant Women. *Curr Clin Micro Rpt* 2, 22-34 (2015).
6. Gutierrez J, Williams EJ, O'Donovan J, *et al.*: 2011, Monitoring clinical outcomes, pathological changes and shedding of *Chlamydophila abortus* following experimental challenge of periparturient ewes utilizing the natural route of infection. *Vet Microbiol* 147:119-126.
7. OIE World Organisation for Animal Health. Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2019. Chapter 3.7.5 [https://www.oie.int/fileadmin/Home/eng/Health\\_standards/tahm/3.07.05\\_E\\_NZ\\_ABOR.pdf](https://www.oie.int/fileadmin/Home/eng/Health_standards/tahm/3.07.05_E_NZ_ABOR.pdf)

For more information, please contact your vet or: Ceva Animal Health Ltd, Unit 3, Anglo Office Park, White Lion Road, Amersham, Bucks HP7 9FB. Tel: 01494 781510 [www.ceva.co.uk](http://www.ceva.co.uk)

Licensed for use with toxoplasmosis vaccine, can be used on the same day at separate injection sites.

Cevac® Chlamydia contains: live attenuated 1B strain of *Chlamydophila abortus* vaccine. Legal category [POM-V]. Further information is available on the SPC, datasheet or pack leaflet. Please speak to your vet about using this product.

Use medicines responsibly ([www.noah.co.uk/responsible](http://www.noah.co.uk/responsible)).

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