On the Hoof
SRUC
Bite-size local updates from SRUC Veterinary Services

Campylobacter abortion in sheep, initial thoughts for this year

Although too early in the season to finalise the numbers Campylobacter abortion in sheep is a common diagnosis this season, a continuation of trends set in recent years.
Campylobacter was the most common cause of ovine abortion diagnosed by APHA in England and Wales in 2023.

With many Scottish flocks starting or approaching the main lambing season the following points might help reduce Campylobacter abortion risk and associated losses:

Campylobacter fetus is the most common strain identified, with Campylobacter jejuni and coli isolated less commonly from abortion submissions.

Infection is oral either from faeces or from abortion products and fluids from other aborting ewes. Fomites such as people and birds are another potential means of organism spread. Birds can excrete the organism for long periods of time in their droppings.

The time between infection and abortion is thought to be between 7 and 25 days, with a bacteraemia lasting around 2 weeks, resulting in infection localising in the placenta. Still births and weak lambs can also be clinical signs as well as abortion, depending on the stage of pregnancy when infected. High abortion rates (5-20%) have been reported in some flocks unfortunately. Experience suggests that abortion outbreaks usually last around three weeks.

Affected ewes can excrete the organism for up to 42 days after abortion. Low numbers of the organism can persist in the gall bladder and intestine and it is such carrier sheep that can bring infection into a flock.

If farms are experiencing abortion problems submission of aborted lambs and placentae is essential for diagnosis.
A provisional diagnosis can be made very quickly based on smear examination of foetal stomach contents and placenta (as the organisms have a characteristic shape) with the diagnosis confirmed after bacterial culture.

Husbandry practices that increase stocking density, increase risk. Housing is the obvious one, but late pregnant ewes strip grazed on root crops or kale (in dirty conditions) is another possible risk. Reducing stocking density for late pregnant ewes where possible (lambing outside, stopping strip grazing, using more fields if possible, feeding with troughs or a snacker in different places each time) can be of benefit.

Hygiene is essential to reduce the risk of disease spread. Wearing gloves when lambing, removing abortion products, isolating aborting ewes, cleaning and turning over feed troughs, disinfecting pens and reducing bird numbers in sheds can all help.

Published, peer reviewed information on any benefit of antibiotic treatment of late pregnant ewes to try and control infection is not available.

It is thought that immunity of the in-contact group is high following an abortion outbreak so problems are less likely to occur in a subsequent season. Whole flock immunity will depend on the different sheep groupings and how widespread infection and subsequent immunity has been throughout the flock.

Campylobacter vaccines are available and can be imported using a Special Import Certificate when a diagnosis is confirmed. Vaccine use should be considered based on disease risk, local epidemiology and the likely balance between immune and non-immune sheep in the whole flock.

An accurate diagnosis is of course the first step so if abortions are occurring in flocks, please get in touch and submit material to confirm any infectious causes present.

	Number of submissions	Number of samples	Number positive
September	20	151	2 positive from 1 submission
October	37	210	5 positive from 4 submissions
November	21	101	1 positive (purchased lamb).
December (to date)	10	51	1 positive lamb from one submission

Author: SRUC – Veterinary Services Dumfries