



# Farm Vet News

Endell Farm Vets

Endell Vets Flock Health Club

April 2021

## Colostrum

**“A strong, healthy lamb, up and sucking within 15 minutes of birth has a 90–95% chance of still being alive 90 days later.”**

AHDB website 2021

### PASSIVE AND ACTIVE IMMUNITY

Ewes cannot pass **antibodies** across the placenta, so their lambs are born with no immunity. They therefore rely solely on ‘passive immunity’ from the ewe’s first milk (colostrum) until they have built up their own ‘active immunity’ by coming across bugs in their environment that stimulate the lamb’s own immune system in the first few days and weeks of life.



Antibodies are large proteins which can only be absorbed through the gut wall, to provide immunity around the whole body, in the first few hours of life. After that time, any antibodies in the milk will remain in the gut and only provide local protection from pathogens taken in from the environment via the mouth. There are no antibodies left in the ewe’s milk by 24 hours.

### FAILURE/PARTIAL FAILURE OF PASSIVE TRANSFER

If insufficient antibodies are absorbed, lambs are at a significantly increased risk of death and disease during the pre-weaning period. Causes for this are:

- Insufficient colostrum supplementation
- Ewes not at target body condition
- Inadequate pre lambing nutrition

The consequences of this are debilitating and often fatal diseases such as joint ill/navel ill, watery mouth, pneumonia (Pasteurella) and clostridial diseases.

We advise vaccinating ewes against clostridial diseases 4-6 weeks before lambing to ensure the antibodies produced get into the colostrum. If the ewes have not been vaccinated before then they will need two injections 4-6 weeks apart with the course being completed 4-6 weeks before lambing.



### COLOSTRUM QUALITY AND QUANTITY

A lamb must receive sufficient quantity of good quality colostrum to benefit from passive immunity

- 50 ml/kg of colostrum within 4-6 hours of birth  
A 5kg lamb needs 250ml within 4-6 hours
- 200 ml/kg of colostrum in the first 24 hours  
A 5kg lamb needs 1 litre
- Colostrum from the lamb’s own dam is best followed by colostrum from another ewe on same farm
- Colostrum quality can be measured using a **‘Brix Refractometer’** which can purchased for about £20 – a drop of colostrum is put on the screen, the plastic cover placed over the top and the measurement read through the eye piece
- Measurements of 12% are acceptable, greater than 25% are preferable
- Colostrum from another species e.g. cow/goat, may be ok but can cause anaemia, so colostrum should be pooled
- Artificial colostrum is the last choice – the products with highest antibody content are ‘ImmuCol Platinum’ and ‘Lamaid’

