

Colostrum Management in Ewes

Ensuring lambs receive adequate colostrum provides antibodies, energy and essential nutrients that benefit the new-born lamb.



Importance of colostrum

- Colostrum provides passive immunity to lambs as it contains antibodies. It is also a nutritious energy source which helps the lambs to maintain body temperature that can reduce losses from both hypothermia and disease. Healthy lambs that receive adequate colostrum should also lead to a reduction in antibiotic usage.
- If the ewes have been vaccinated against clostridial diseases at the correct time pre-lambing, they will pass these antibodies down to the lamb through the colostrum which offer some protection for up to 12 weeks.
- Managing ewe nutrition and body condition score (BCS) in pregnancy is key to the 3 Qs of colostrum.

The 3 'Q's of colostrum – Quality, Quantity and Quickly

- **QUALITY** – The quality of colostrum will depend on the ewe's health, the ewe's BCS and the ewe's pre-lambing diet. A refractometer can be used to test the quality of colostrum
- **QUANTITY** – Lambs must receive 50ml/kg of colostrum in the first 2 hours of life and 200ml/kg during their first 24 hours of life. For lambs reared outdoors, the colostrum allowance should be increased by 15% to 20%.
- **QUICKLY** – Lambs must receive colostrum as soon as possible after birth, and certainly within the first six hours of life.



Testing colostrum quality:

Using a refractometer

A refractometer will measure the volume of Immunoglobulin-G (IgG) in the colostrum.

1. Collect a sample from the ewe and place a few drops of colostrum onto the prism of the refractometer.
2. This should be carried out at room temperature (take inside in very cold weather)
3. Close the cover plate over it (ensure there are no bubbles).
4. Hold the refractometer up to the light and look into the eyepiece to see the scale.
5. Colostrum quality of above 25% is considered a good quality colostrum.





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Testing colostrum quality through blood tests

The ZST test is an indirect measurement of the passive transfer of immunoglobulins via the colostrum from the dam to the neonate. The lambs' blood can be tested between 2 and 7 days old. If the 'ZST units' is 14 then colostrum absorption is acceptable, 5-14 units means there has been some failure of colostrum absorption and <5 means no colostrum has been absorbed.

Poor refractometer and ZST results may reflect inadequate pre-lambing nutrition. Ensuring ewes are at key BCS throughout the year will ensure the ewes are at their fittest at lambing time. Please discuss this further with your vet.

Alternative options when colostrum quality or quantity is poor:

- Take colostrum from another ewe who has a lot of milk, is in good BCS and rearing a single.
- Cows' colostrum – ensure it's mixed from a number of different cows to avoid anaemia, that it comes from a herd with a high health status and preferably that they're vaccinated against clostridia. Cows' colostrum is also not as concentrated as sheep's colostrum so the feeding rate should be increased by 10-15%.
- Goat colostrum – ideally from a high health status which are vaccinated against clostridial diseases.
- Powdered colostrum – this can be used as a replacer or as a supplement. Energy and protein levels vary significantly between brands and all are lower than fresh ewe colostrum. If using as a replacer, it is important to remember that it is favourable to use another ewes' milk over using powdered colostrum. Supplement feeding of colostrum can be given to triplets, poor-doing lambs or the lambs of ewes who do not have enough milk.

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