

Farm Newsletter

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The Importance of Colostrum

As Spring approaches, our minds turn to the management of the lambing/calving shed, and how to achieve the best survival rates. Awareness of the importance of colostrum is now increasing, and the following information is intended to help plan ahead to ensure that every newborn has access to this essential first food.

When calves and lambs are born their immune systems are very under developed and they won't be able to adequately produce their own antibodies until they are 1-2 months old. They have no antibodies to protect them against the infections that they will quickly encounter in the lambing/calving shed so they must rely on their mothers colostrum to provide antibodies and the energy to keep warm. These antibodies are absorbed into the bloodstream through pores in the gut which only stay open for a few hours.

Studies have shown that at 6 hours after birth 66% of antibodies in colostrum are absorbed into the blood stream but 30 hours later only 7% are absorbed.



This indicates the importance of ensuring that adequate colostrum is consumed in the first 6 hours of life. After a difficult calving/lambing the neonate may take several hours to stand and the mother may be reluctant to stand, this combination means that adequate colostrum consumption won't be achieved without farmer intervention.

There are several options for supplementing colostrum intake in the first few hours of life. Farmers can milk the dam if she is suitably quiet, and feed the calf/lamb with a bottle or feeding tube. Bottles are preferable but many newborns are reluctant to suck from a bottle and it is better to ensure adequate intake via stomach tube if necessary.





Calves should receive approx 5% (around 3 litres) of their bodyweight in colostrum within the first 6 hours of life and another 3-4 litres in the next 18 hours. Lambs should receive approximately 1litre of colostrum in their first 24 hours of life, split into feeds of approximately 250ml each.

If milking the mother isn't possible or if the mother doesn't have enough colostrum there are powdered colostrums which can be used. We stock high quality cow and ewe colostrums in our Tain and Invergordon branches. These are very helpful but antibodies aren't

targeted for the individual farm - colostrum from the dam will have antibodies which have been manufactured specifically against infections and vaccinations that the mother has encountered during her pregnancy.

One instance when calves in particular don't receive adequate colostrum is when a cow is still feeding last year's calf when she calves. It takes up to 2 months to store up the antibodies in the udder required to make good quality colostrum so if she has been suckled during this period then supplementation of the newborn calf with high-quality powdered colostrums or antibody supplements is required. These antibody supplements have no nutritional value (so need to be given in addition to colostrum), but contain a high level of antibodies obtained from cows vaccinated against E.coli and other diseases affecting neonatal calves.

Calves and lambs which receive adequate, good quality colostrum are much less likely to develop scours, pneumonias or joint ill and are much more likely to survive past 6 weeks of age. A study of all young calves less than a month old which were post mortemed at a lab showed only a very small percentage had enough antibodies in their bloodstream. The lack of colostrum in these cases had made the calves much more susceptible to disease.

So the important points to bear in mind are:

- **TIME** (first colostrum must be received no later than 6 hours after birth).
- **QUANTITY** (approx 3 litres in first 6 hours and another 3 litres in next 18 hours)
- **QUALITY** (cows colostrum is best but if little available or cow been sucked then powdered is a good 2nd choice)

