

Colostrum Management

Colostrum is the fuel of life and making sure your calves get enough is the cornerstone to all successful calf rearing enterprises. However, it is not as easy as you might think to succeed. Here we highlight the '4 Qs' of colostrum management to ensure calves get off to the best possible start in life.

Colostrum supplies essential nutrients and antibodies. As newborn calves have no protective antibodies to resist disease challenges, it is essential that these are absorbed via colostrum. If you miss out any of the following 4Qs of colostrum management then you should not be surprised to see poor health, low growth rates and high mortality in calves.



THE 4 QUESTIONS OF COLOSTRUM MANAGEMENT

Q1 QUALITY

Colostrum quality can vary enormously between animals, so only feed good quality colostrum, tested using a colostrometer.

Good quality colostrum should be frozen ready for future use, e.g. when a dam's colostrum is of poor quality or unsuitable for use. A commercial colostrum alternative can be used but make sure it has been independently tested and check the nutrient density.

Quality can be poor for many reasons:

- Age of cow - colostrum from cows in their first lactation usually contains fewer antibodies as they have yet to be exposed to a wide range of pathogens.
- Breed of cow - Holstein colostrum typically contains lower antibody levels than that from Jersey cows.
- Short dry periods of less than three weeks.
- High yielding cows - those producing more than eight litres at first milking with poor transition diets.
- Poor hygiene - high levels of bacteria in colostrum have been shown to reduce the uptake of antibodies by the calf.

Q2 QUANTITY

Feed a minimum of three litres in the first six hours, split into two feeds if necessary. Remember, a calf requires approximately twenty minutes of continuous sucking to consume three litres of milk from the cow.





Q3 QUICKLY

Ideally, colostrum should be fed as soon as possible after birth and, at the latest, within six hours.

At birth the calf's gut is permeable which means it can absorb the large antibody molecules directly into its bloodstream. Over the first twenty-four hours the gut rapidly 'closes' and these molecules can no longer be absorbed, so it is essential that the calf ingests sufficient antibodies as soon as possible after birth. Continue feeding colostrum for at least the first three days of life if possible, as this has been shown to have other benefits encouraging early gut development and laying a solid foundation for fast, efficient future growth.



Q4 QUIETLY

If calves are stressed while being fed colostrum, then they won't absorb the antibodies as efficiently as those that are calm. This means a stressed calf will require more colostrum in order to achieve the same level of immunity.

REMINDER OF THE 4Qs

- Q1 QUALITY**
- Q2 QUANTITY**
- Q3 QUICKLY**
- Q4 QUIETLY**

A rough job is also an unhygienic job and bacterial contamination will not only increase the risk of disease but will also interfere with passive transfer.



The Colostrometer

The Colostrometer is an easy to use piece of kit, calibrated to colostrum density, that rapidly tells you whether maternal colostrum is of good quality.

Simply place the colostrometer into the provided cylinder and wait to see where it floats to.

- If in the green area, then the colostrum is of good quality and can be fed or frozen.
- If in the amber area, then the colostrum is of average quality and you should consider supplementing to ensure the calf receives enough protective antibodies.
- If in the red area, then the colostrum is of poor quality and should not be fed or frozen.
- To ensure accurate results always test colostrum at a temperature of around 22°C.



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Workshops on cell count and milk quality control are available all year round. We also cover milking routines and parlour hygiene as well as milking technologies and robotic milking.

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