

# CALF & COLOSTRUM MANAGEMENT

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contact our office or visit our website.



**Royal (Dick) School of Veterinary Studies**  
**Easter Bush Veterinary Centre**  
**Roslin, Midlothian, EH25 9RG**

**Tel 0131 651 7474   DHHPS@ed.ac.uk   [www.ed.ac.uk/vet/dhhps](http://www.ed.ac.uk/vet/dhhps)**



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- A recent UK study has shown that 7.9% of dairy calves are stillborn or die within 24 hours of age.
- A further 6.8% of heifer calves died or were culled between 1 day and 6 months of age.
- Getting your calves off to the best possible start will reduce calf losses to below 3-5%.
- The immune system in newborn calves is poorly developed, and so they have to rely on colostrum to provide the necessary antibodies in the first months of life to protect them from disease.
- Some studies suggest that nearly ½ of the calves in the UK do not receive enough colostrum.

## “Three golden rules for colostrum management” – The Three “Q”s

### Quantity

- Aim to feed calves 3-4 litres as soon as possible (“six pints in the first six hours”).
- This is equivalent to 20 minutes hard suckling by the calf, although this is not a reliable method of ensuring colostrum intakes.
- The best way of ensuring adequate colostrum intakes is to milk the cow, and feed directly to the calf by bottle or feeder.
- Then aim to feed another 3-4 litres by 12 hours of age.

### Quality

- Colostrum quality tends to be higher in older cows (3rd lactation +).
- Antibody concentrations in colostrum drop quickly after calving, and so only colostrum from the first milking should be used as a reliable source of quality colostrum.
- More milk will mean more dilute colostrum, so watch for high yielding cows at the first milking.
- Milking precalving (for example to reduce udder oedema) will reduce antibody levels in the colostrum.
- If in doubt, check colostrum quality using a Colostrometer.

### Quickly

- Colostrum absorption in the calf’s gut reduces dramatically to virtually zero by 24 hours of age.
- “The sooner the better”. Ideally the first feed of colostrum needs to be within the first 6 hours of life.
- If there have been problems such as a difficult calving or milk fever, then make sure the calf gets enough colostrum by carefully feeding colostrum via an oesophageal feeder.
- Keep a supply of frozen colostrum from cows of known health status in case of problems.



## Checking colostrum intakes

- Colostrum intakes can be checked by taking a blood sample from calves within the first week of life, and checking for antibody levels (suitable tests include ZST and total protein levels).
- Feeding waste milk from antibiotic treated cows will be of poor nutritional value, may contain harmful bacteria and result in the development of antimicrobial resistance. Waste milk should be dumped.

## Control of Johne’s disease

- Johne’s disease can be spread rapidly by feeding pooled colostrum or waste milk or milk with faecal contamination, as contaminated milk from Johne’s positive cows will potentially infect multiple calves.
- If your herd Johne’s status is unknown or positive, do **not** feed pooled milk or colostrum.
- If snatching calves at birth as part of a Johne’s control program, then ensure that calves receive enough colostrum. This should be sourced from cows that have repeatedly tested negative for Johne’s disease.

- On-farm pasteurisation can help reduce the risk of disease transmission, when feeding surplus milk to calves.

## Calf environment

- Aim for a clean, dry lying area with plenty of space per calf. Avoid mixing of different age groups.
- Provide adequate ventilation, but ensure protection from draughts.
- If possible, adopt an all-in all-out system to reduce the build-up of infection in the calf pens.

## Calf diarrhoea

- If you have problems with calf diarrhoea, take faecal samples to see what the main cause(s) are.
- Treat rapidly with appropriate rehydration solutions as directed by your vet. Affected calves can quickly die due to the effects of dehydration and acidosis.
- Calves that receive adequate colostrum will be much less susceptible to diarrhoea. There are vaccines available against some of the causes of calf diarrhoea, which boost antibody levels in the mother’s colostrum.

## Investigate any calf disease problems as soon as possible in conjunction with your vet

