



COLOSTRUM MANAGEMENT

INTRODUCTION

Colostrum is concentrated milk produced by cows just before and just after calving. Colostrum is energy rich and contains high levels of antibodies which protect the newborn calf from the common diseases of the farm where it is born. Antibodies are specific proteins that can only pass across the calf's gut wall during the first 24 hours of their life. After that, the antibodies are digested (just like any other protein the calf eats), however they do help protect the calf against scour, by binding to some of the bacteria and viruses in the gut.

MANAGEMENT

Calves should always be fed their first feed within 6 hours of birth. A newborn calf should be given 3 to 4 litres of colostrum at the first feed, followed by a further 3 litres 6 hours later. Research has shown that the majority of farmers underfeed calves (only giving them 2 litres at each colostrum feed). **Feeding a total of 6 litres of colostrum in the first 12 hours will not cause scour, and will maximise the antibody protection against diseases.**

There is huge variation in the quality of colostrum from different cows. Heifers, very thin cows, recently purchased cows, or cows with mastitis will all produce poor quality colostrum. Recently purchased cows may not have antibodies in their colostrum to the diseases on your farm. Very thin cows may not have the energy to make antibody rich colostrum, often their colostrum will look thinner than normal (poor quality).



ASSESSING COLOSTRUM QUALITY

A quick blood test performed by your vet will give an indication of colostrum quality and quantity. The blood should be collected from calves in the first week of life. The vet uses the blood to calculate the amount of protein that has passed from the colostrum to the calf's blood. A colostrometer can also be used to assess colostrum quality on farm.



STORING COLOSTRUM

Quality colostrum from healthy, Johne's free, second or third calvers should be stored. Colostrum should be frozen in 2 litre plastic bottles. When you thaw out the colostrum do not microwave it as it leads to hot pockets where the antibodies are damaged. Colostrum should be thawed in a large bucket of hot (not boiling) water to ensure that no antibodies are damaged. Colostrum should be fed to calves once it has reached 38°C (100°F).

PREVENTION OF NEONATAL CALF DISEASES

Calf scour, joint ill, pneumonia and septicaemia are all influenced by colostrum intake. Ensuring every calf gets a minimum of 6 litres of colostrum in the first 12 hours of life will protect your calves from most of the common diseases on your farm. Hygiene is also essential to minimise disease risk. Calves umbilical cords should be sprayed with 10% iodine or with engemycin (blue) antibiotic spray as soon as possible. The calving environment will impact on calf health; if calves ingest muck their gut may become overwhelmed with bacteria leading to scour or even septicaemia. Calf pens and buckets should also be kept clean and dry to minimise scour and pneumonia.



KEY POINTS

All calves should get 6 litres of quality colostrum within the first 12 hours of life

3 litres of colostrum should be fed at first feed, and another 3 litres six hours later

Most farmers underfeed newborn calves

Do not rely on calves sucking cows, bottle feeding ensures they get colostrum

Hygiene is very important, wash buckets daily

Never pool colostrum

Discard colostrum from Johne's positive dams, as it will pass on the Johne's to their calf

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