

Calf Rearing

The aim of successfully rearing heifer replacements must be to provide a level of nutrition that will enable optimum growth rates and rapid rumen development at a reasonable cost.

Feeding guide

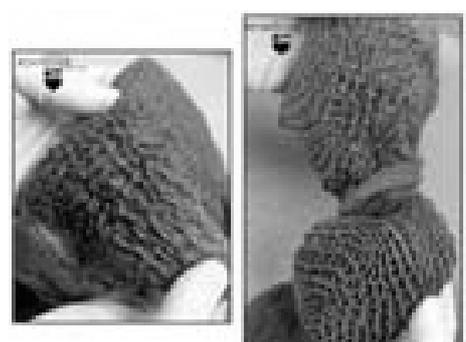
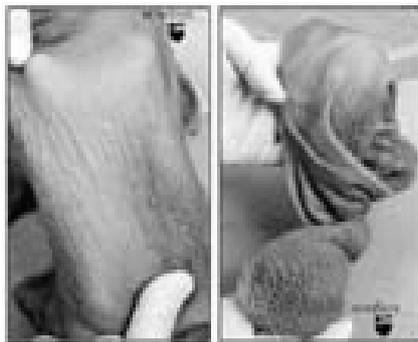
A calf should be fed approximately 12 percent of its body weight per day. Feeding much below this amount causes poor growth due to lack of necessary nutrients. Feeding higher levels of whole milk can result in more rapid growth rates, but it is not recommended due to decreases in meal consumption and prolonged time to weaning due to slow rumen development. Ideally the milk should be warmed to at least 18 C, especially during the early weeks, to avoid further stressing of the calf. Try to feed the milk at approximately the same time of day. Whole milk should never be watered down as this will prevent clot formation and can result in diarrhea. CMRs should be reconstituted to about 15% DM. Ad lib water should be available to calves from day 1.

At birth, calves do not have an active rumen. While increasing rumen size is part of the calf's development, it is more important that the papillae lining the rumen develop. The longer the papillae the greater the surface area available for absorption of nutrients. If the rumen is not developed sufficiently at weaning then calves are likely to suffer a growth check. The pictures below are of rumens from calves at 6 weeks of age. They show the effect of different feeding systems on the rate of rumen papillae development.

Milk Only

Milk and Hay

Milk and Meal



Clearly, meal is far more effective at stimulating rumen papillae development. Meal should be made available ad-lib from day 5. Meal should have 18-22% crude protein, 10-25% fibre and an energy level of at least 11.5-12.5 MJME/kgDM. A coccidiostat should be added to prevent scours caused by coccidia. Hay or straw should also be made available to help develop the fibre mat within the rumen.

Once concentrate intake exceeds 0.5kg/calf/day milk volume can start to be reduced and once intake exceeds more than 1kg/calf/day calves can be weaned. **Do NOT** wean just on body weight. Calves should have a pear shaped abdomen indicating a fully functional rumen. Concentrates need to be fed for at least 1 month post weaning up to a maximum of 2.5kg/calf/day. Late or poor calves should be offered additional meal to help them catch up with the rest of the mob.