Young animals have the ability to convert feed into growth much more efficiently during the first two months of life. The level of feeding a calf receives in this period therefore has a big impact on growth rates, health and ability to cope with stress. During the first 12 weeks of life a daily live weight gain of 0.7kgs per day should be achieved, after this a growth rate of 0.8kgs per day should be targeted.

Mortality up to three months of age should be less than three per cent and overall treatments to the batch of calves should ideally be under 10pc. If you are higher than these figures there may be an underlying problem on your farm and veterinary intervention may be required.

A simple rule of thumb target is to double the birth weight in eight weeks. This will require excellent management from day one.

For example, a 40kg calf at birth needs to reach 80kgs in 56 days. As this is an increase in weight of 40kgs, an average daily gain of 0.71kgs per day is required for every day.

Buying in calves

The first feed should be an electrolyte which are formulated to promote absorption of specific nutrients and to replace water and minerals that are lost during these stress periods.

Feeding milk replacer

In order to achieve the target growth rates as set out above, 750g of milk replacer per day supplemented with good quality concentrates needs to be fed. This should be fed over two feeds – three litres in the morning and three litres in the evening. Don’t move to once a day feeding until the calf is at least four weeks old.

The three litre mix should be 2.625lms of water and 375g of milk replacer to give a 23.5pc solids mix.

Protein levels in the milk replacer should be 28-26pc and consist predominantly of milk proteins.

Be consistent when feeding calves, feed at the same times each day, temperature of milk fed should be 37-39 degrees, this will help stimulate oesophageal groove reflex and preventing milk from entering the rumen, keep concentration and volumes fed consistent. Cleanliness and hygiene are critical.

Water

Clean fresh water should be available at all times for the calf to access. Check troughs daily to ensure that there is no dirt or faeces in it.

It is important to remember that milk is a food and not a drink therefore water is essential to the young calf. For every one kg of meal that a calf will eat they will drink four to five litres of water.

Water is essential for basic functions to replace fluids that are being used or eliminated by the transportation of nutrients, excretion of urine and faeces etc. Bacteria in the rumen require water to help support rumen development.

Early concentrate intake is stimulated by water intakes. Insufficient water will slow rumen development and reduce feed conversion rates.

Concentrates and roughage

Feed a good quality 18-20pc crude protein palatable calf starter from day three, this should be replaced daily to keep it fresh. Concentrates that are essential for early rumen development and to achieve 0.7kgs of average daily gain.

From 2-3 weeks old intakes will gradually increase, by 6-8 weeks calves should be eating 0.7 to 1kg of calf starter per day.

Do not feed hay, the young calf cannot digest it and it can leave calves pot-bellied. Feed a good quality, clean dust free straw in racks, do not expect calves to eat it from their bed.

Weaning

At weaning your calf should be 90kgs and ideally closer to 100kgs. Ensure that calves are eating at least 1.5 to 2kgs of concentrates per day at weaning.

Gradually wean calves over a number of days and do not plan activities such as dehorning, changing social groups etc. round this time as you need to keep stress to a minimum.

Calves should double their birth weight in the first two months of life if nutrition and other essentials are well managed, writes Gordon Peppard.