

Feed Conversion Efficiency



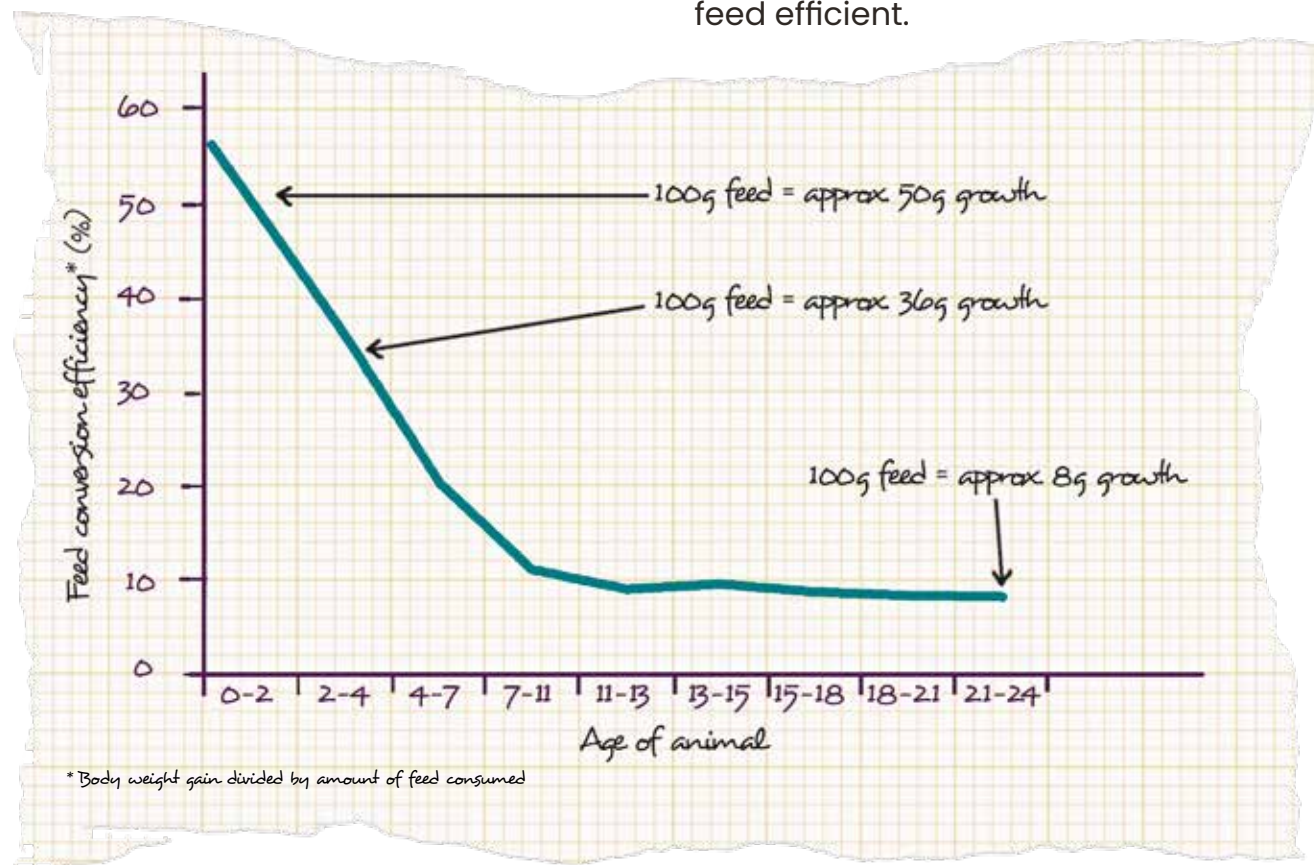
Timing

A calf's milk feeding period is a golden opportunity to maximise growth. Feed efficiency – the animal's relative ability to turn feed nutrients into growth – peaks during this period, at around 50% compared with under 10% from 11 months until calving.

Age

An animal's ability to use feed efficiently declines with age; and because liquid milk is more nutritious and digestible than concentrate, feed efficiency is highest during the milk feeding period.

What's more, prior to puberty heifer growth focuses mainly on bone and muscle, whereas in later life heifers gain more fat and are therefore less feed efficient.





Environment

Environmental stress can have an adverse effect on feed conversion efficiency. Draughty housing and wet bedding may result in cold, sick calves who will take more energy from their feed to keep warm and fight disease, leaving less energy for growth.

Feed

Both ingredients and quantity can affect feed efficiency; the more digestible, the more efficient. A milk replacer's digestibility is influenced by the type of protein and fat source used along with its manufacturing process. It pays to buy milk replacer from a trusted supplier.

Cost

Research shows that the total cost of rearing a heifer from birth to 24 months was less when feeding 6l rather than 4l per day of milk replacer¹. Heifers reared on 6l of milk replacer per day up to 2 months, were less expensive to produce because those reared on 4l had to grow later in life (when feed conversion efficiency is low) to reach the same body weight at first calving.

	Conventional	Optimum	Enhanced
Milk per day	4l	6l	8l
Average daily gain	0.5kg/d	0.8kg/d	1kg/d
Cost £	759	729	738

Ref. 1. Alex Bach, Department of Ruminant Production, IRTA, Spain