Rearing calves

The future of any dairy farm depends on the successful rearing of calves and heifers for herd replacements. Unfortunately, too often calf rearing is regarded as just another task, done mechanically then move on to the next job. Successful calf rearing is very dependent on the skill, experience and empathy of the stock person looking after the animals. Simple preventative management, observation and understanding are the ingredients that will make the difference between successfully reared healthy heifers and failure with calf scours and high mortalities.

Culling cows

Dairy farms cull or lose about 20% of cows from the milking herd each year through health, calving problems, mastitis, infertility, death or culling for age or production. Most of these herd exits are involuntary. These cows have to be replaced to maintain the same number of cows lactating each year. Good herd management will reduce involuntary losses (infertility, disease) to allow higher production culling and herd improvement through breeding.

Herd replacement

A herd replacement rate of 25% with at least 10% selective culling will make rapid genetic progress without sacrificing milk yield. By maintaining a younger herd, the farm can better meet requirements for high-quality milk, as somatic cell counts and mastitis incidence increase with age of the cow. To replace these milkers, farmers rear their own heifers, or cows or springing heifers are bought in. Most farms would rear their own herd replacements, with additional animals reared or purchased for herd expansion.

Advantages of rearing heifers on the farm

- Calves are selected from the best cows for faster genetic improvement.
- Introduction of disease onto the farm is avoided.
- Replacements reared on the farm are usually more economical than buying heifers.
- Replacements may be difficult to buy, not calve when desired and their breed quality is uncertain. Is the bought replacement another farm's cull?

Calving rate

If calves are reared at home, the aim is to have 25 heifers calving each year as replacements for every 100 cows in the herd. Ideally, heifers should first calve at two years of age. To achieve this goal calves must grow steadily from birth to first calving and mortalities must be low. The number of newborn calves needed for rearing is the 25% replacement rate plus additional calves to allow for possible mortalities, conception failure or delayed calving through poorer growth. Thus number of heifer calves to be kept may be as low as 55% or as high as 100% of females born. With good management for low calf mortality, replacement heifers need only be retained from the top half of the herd for most rapid herd improvement. Others can be reared for herd expansion or sale.

Control mortalities

To achieve low mortality levels, calves must be fed and managed correctly. Adverse environmental conditions, wet, cold weather, increase stress and disease problems for calves. It is important to manage and feed the calf correctly so that it can cope with such stress. Early surveys of farms in high rainfall environments like north Queensland found that in the past over 25% of calves kept for herd replacements died before weaning and post weaning losses could be equally high. With high calf losses all female calves must be kept, increasing costs and labour, but with such poor survival, herds could make little progress.

Understanding of calf requirements permits reduction in calf mortalities to less than 5%, with the most successful farms achieving below 2% mortality. This success is achieved by feeding management that stimulates early rumen development, good husbandry practices, strict hygiene, and early recognition and treatment of scours and disease.

Husbandry management begins before birth with correct management of the dry cow, at, and immediately post calving through peri-natal attention as necessary. Calve cows in a clean environment. After the calf is born, it is essential the calf receives its first feed of colostrum within the first six hours of birth. This provides the maternal antibodies necessary to protect it against disease for the first weeks of its life, but these immunological proteins can only be absorbed into the bloodstream within the first 24 hours after the calf is born. Without this passive disease protection it is almost impossible to rear a healthy calf. Care and good husbandry practices through the milk feeding period will prevent and rectify problems, greatly reduce calf deaths and achieve higher production and profitability from healthy, well-grown heifers.

Source: Queensland Department of Agriculture, Fisheries and Forestry; 2009