

Rearing Replacements For A successful Future

Heifer rearing is one of the key building blocks associated with optimal reproductive performance in dairy herds. Unless heifers hit appropriate body condition targets before calving they are destined to take longer to cycle in their first season – have less chance to get in calf, more likely to need a CIDR, and are destined to either be induced or leave the herd early as an empty. In addition, studies have shown increases in milk fat and protein over the next 3 lactations for heifers achieving target weight gains by calving. Clearly, there are substantial advantages for producing well-grown heifers.

Obviously the process of achieving optimal heifer weights prior to their introduction into the herd starts at birth. Firstly, identify the appropriate growth targets for your replacements. The target weights that you are advised to aim for are as follows:

- Holstein-Friesian genotype cows on pasture should have a mature body size of at least 550-580kg, cross-breds about 480-510kg and Jerseys 450-500kg.
- E.g. Cross-bred heifers need to have an average milking weight of 430 kgs (390-470 kgs range). Allowing for loss of calf and uterine contents and 1/2-1 CS post calving this means average liveweight at calving needs to be 490-510kgs.
- Assume weaning weights of 100kgs at 10 weeks. This leaves 660 days to grow 400 kgs = 0.66 kgs/day (aprox. 0.7-75 kgs for friesians & 0.55 kgs for jerseys).
- Heifer calves must be 30% of mature body weight by 6 months of age which equates to approximately 180 kg Friesian, 165 kg Crossbred and 150 kg Jersey.
- Heifer calves must be 60% of mature body (360 kg for friesians, 330 kg for cross bred and 300 kg for jerseys) at 13 months of age.

A systematic approach to heifer rearing is the key to achieving these new targets. Below we have identified some of the key events in the process that will help you reach these targets.

- i. Effective colostrum transfer
- ii. Excellent calf diets – good access to milk, pasture and concentrates (Calves need a diet with a minimum of 18% high quality protein, 11.5 MJ/kg of ME and of less than 40 NDF. Summer pasture doesn't often meet these specifications so calves will probably need to be supplemented in their first summer from November -March with 1-3kg of e.g. meal/pke. Additional supplementation may also be required the following summer as 2-year-olds from December-March)
- iii. Parasite control must start early (late November) and follow the recommended treatment intervals according to the product used. Due to the widespread prevalence of drench resistance measures must now be instituted

that promote sustainability whilst maintaining productivity. Don't forget to be on the look-out for lice (usually around the cooler months of May- August) and treat accordingly.

- iv. Trace mineral status and supplementation must be well managed to allow heifers to reach these growth targets. Particular attention must be paid to copper, cobalt and selenium status.
- v. Commence vaccination programs early to protect against many of the diseases that can impact on growth and the resulting ability to reach the above targets. Routine vaccination for Clostridial (5 in 1) diseases and Leptospirosis is essential. However there are vaccines available for BVD, IBR, Neospora, and Salmonella if these diseases have been a problem on farm. Animals going away grazing and mixing with other animals of different histories should be vaccinated against BVD to prevent the risk of bringing the disease back to the home farm.
- vi. Facial eczema control needs to commence early prior to spore counts rising to danger levels as many animals can develop sub-clinical eczema, with no visible signs of disease, but serious impacts on growth and production. Regular monitoring of spore counts early in the season (late December/early January) will give an indication of when to start dosing with zinc. Zinc bullets are the safest, easiest and most effective way of ensuring that all young stock (particularly those out grazing) receive the necessary amount of zinc.
- vii. Regular stock assessments will allow you to notice any untoward signs of ill-health. This can be as simple as driving through the young herd on a regular basis to pick up those that may be lame (impacts on an animal's ability to access feed) or are unwell. Regular monitoring of animal weights will allow early intervention if animals are not meeting targets.

Particular attention must be paid to young stock that are to be grazed off farm to ensure that all the above requirements are met. There are numerous "long acting" products on the market (Copper bullets, mineral boluses, B12 products) that can be given to stock a day or two before leaving the farm. Of particular importance is good communication between the owner and the grazer. We often hear of owner's being disappointed with the growth of their young animals when they return to the farm. By defining specific targets and goals and communicating these targets with the grazer, there is no reason why we can't produce young animals that are healthy, well grown and destined to be productive members of the herd to a ripe old age.