Fiji DAIRYNOTE 2.1 – Feeding and Nutrition: The Freshly Calved Cow

Good Practice Guide for Fiji Dairy Farmers

Introduction

Every farmer knows when their cow is due to calve, so focusing on the freshly calved cow is a good place to start on the road to tailoring your feeding and nutrition to your animals' stages of lactation. Good management will set up a freshly calved cow well for the production cycle ahead and will have positive effects on her long-term production curve.

Negative Energy Balance (NEB)

During the last 2 weeks of gestation and the first 3-4 weeks of lactation, dairy cows go through what we call Negative Energy Balance (NEB).

This is due to:

- The growth of the calf which can double in size during this period
- The start of colostrum production
- The stress of getting ready for calving
- A lack of appetite due to health problems, i.e. metabolic diseases, mastitis
- The need to start producing milk again

If not addressed, NEB can lead to long-term negative effects such as delayed calving during future reproduction cycles.

NEB and Body Condition Score (BCS)

All of the things listed above can affect an animal's dry matter intake (DMI), and as a result, its future productivity. For example, a reduction in DMI causes the mobilisation of body fats. This can lead to losses in a dairy cow's overall body condition score (BCS). If excessive, this can cause ketosis which further increases BCS loss. Significant losses can have major negative effects on an animal's future reproduction and production.

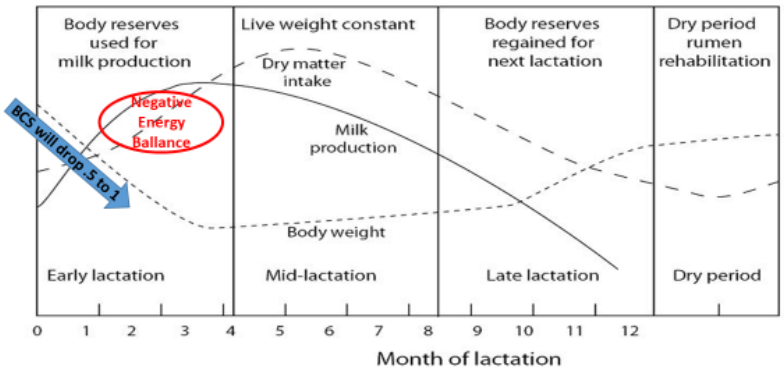

Figure 1: Dry matter intake, milk yield and live weight changes in a cow during her lactation cycle.

FDIDI would like to acknowledge New Zealand company QCONZ and consultant Mel Eden for supplying some of the information and images contained in the DairyNote series.

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Figure 2: A dairy cow with a low BCS after calving. Cows that experience drastic losses in their BSC after calving can end up in very poor condition and sometimes need culling.

Reducing BCS loss

Every cow goes through NEB, so the secret is to minimise it by reducing BCS loss. This can be done by stimulating animals' appetites and making sure that sources of energy, calcium and other minerals, electrolytes and vitamins are readily available after calving to enable them to recover as soon as possible. The take home message is to do the best you can to feed your animal/s the best you can.

Starter drench

A simple, fresh cow drench can be given to your cow daily for 4-5 days after calving at a litre/day (recipe below). This 'starter drench' will stimulate your cow's appetite to encourage her to eat the amount of feed she needs to eat to start her lactation off.[1]

- 200g/l Monopropylene Glycol
- 200g/l Molasses
- 12.5g/l Magnesium Oxide
- 60g/l Calcium Carbonate

Diet

The diet for a freshly calved cow should consist of the best feeds available. The animal should be offered food that is palatable, high in energy and have adequate fibre. A freshly calved cow is going to need around 200-240 ME to meet her requirements; this equates to a 20kg-plus DMI of good quality, nutritious feeds.

Helpful tips

- Monitor your animal's BCS – she should be 5 at calving
- Make sure your cow has a dry period of 8 weeks
- Stimulate eating by starting to feed the cows that are close to calving the milking diet two weeks prior to calving
- Make sure that calving cows have a clean dry area to have their calf
- Teat dip cows that are close to calving cows daily
- Make sure your animals have water 24/7
- Tend to any sick cows promptly
- Keep sick cows away from pregnant/calving cows
- Have freshly calved cows in the same part of the barn for easy monitoring
- Provide magnesium oxide at 35gms/cow each day 2 weeks prior and at least 4 weeks after calving
- Use a starter drench on each cow for 5 days post calving
- Consider adding molasses to the diet as it is a readily available source of energy and can make the feed more palatable as well

[1] A mineral supplement can be added as well.

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