



Calving Down

“Independent of herd size, a cow’s production depends heavily on how she was fed and cared for during transition and freshening.” Mike Hutjens, University of Illinois.

Short of droughts and accidents, nothing impacts more on milk production than this. Building on last month’s article, “Laying Foundations” we will look at feeding and caring for our dry cow/fresh cow to the goal of optimum milk production.

Cows can be dried off abruptly at 22 litres or less, treated with dry cow and removed from the milking herd. Observe dry cows for leakage and re-dry cow if necessary. Milk production in excess of 22 litres needs to be reduced over a week. Simply separate from the herd and feed a hay diet (significant energy reduction). Dry cow is essential and thoroughly documented for mastitis control.

I insist on 8 weeks dry; no more, no less. Six weeks for mammary tissue and rumen wall regeneration, plus a couple of weeks in case of inaccuracy of calving date to prevent dry-cow contamination of milk post calving.

From last month’s article I’ll assume we dried her off in BCS 5, and to achieve our goal of stable weight while dry we need around 90 MJME/day (energy - Holstein) and 12% crude protein. A dry cow diet of 9 kgs pasture hay, 1 kg pasture pick and 1 kg of grain from the dairy silo will meet this ration nicely. I strongly recommend the 1 kg of grain to continue mineral supplementation and rumen modifiers (Rumensin/Tylan). The grain is also necessary to make up energy requirement. Bear in mind 9 kgs of hay consumed requires 12 kgs to be fed out (wastage). Feed this ration for 5 weeks.

The goal of lead feeding is to prepare for lactation by adjusting the rumen environment, sustaining dry matter intake, and preventing metabolic disorders like milk fever and ketosis, and their companions, metritis and mastitis – they all travel together. American research data concluded that cows fed a good lead feed ration less than 11 days produced 900 litres less milk. This is confirmed by local data (Gippsland) that showed the difference between lead feeding for 14 days and 22 days produced a 4 litre/day response post-calving.

A good lead feeding ration will vary according to any farm’s forage reserves, but the nutrient criteria must be met to produce the desired result of a problem free calving and a cow rapidly rising to genetic potential for milk production, and be back in calf.

Our ideal springer ration requires (Holstein - reduce intake by 20% for Jerseys), 120 MJME (energy), 40% NDF (fibre) and crude protein of 15%, with high by-pass protein percentage (38%), low potassium content, and 12+ kgs DM intake. I confess this is not easy to get 15% crude protein on pasture based dairies and avoid potassium.

Here are some options based on probable feeds available. A quality lead feed grain mix with a DCAD minimum of -2100meqs fed at 4 kgs/cow/day. Adlib oaten hay – cows should eat around 6 kgs DM/day. If pasture is available, 3 kgs DM pasture or silage, or even rape crop. None of these rations will meet the above criteria for protein, but will for energy and fibre and minimise potassium (milk fever), in conjunction with a -2100 DCAD grain mix. The grain mix must be 70% cereal (wheat) and 30% canola meal for protein, especially by-pass protein. The by-pass protein will help significantly to maintain feed intake prior to calving, a major cause of ketosis and fatty liver.

Springing heifers should be in the springer group and fed the lead feed ration. Although not high risk of clinical milk fever they are prone to sub-clinical and certainly edema (flag), which is also attributed to high potassium. Heifers will benefit from all other disease-elimination goals of lead feeding. Socializing with mature cows before calving will greatly assist our heifers to compete and have some hope of achieving their potential in first lactation.

I'm often asked, exactly what do you mean by 'fully fed cows'. Generally, that there is no restriction to cows having access to all they can eat in a day. The dairy farmer is usually the greatest restricting factor! In the case of a Holstein, this should be 20+ kgs DM/cow/day. Rather than trying to estimate pasture DM in a paddock, I recommend "testing" cows at 1 pm with silage/hay to see if they are fully fed. Remember, for every extra 1 kg of DM feed in a balanced ration we can expect 2 litres more milk.

To provide every opportunity to our fresh cow to milk to potential, she obviously needs access to ample feed. I've stated in recent articles that under current milk pricing, and given usual feeds available to pasture based cows, there is no such thing as feed cost in excess of milk return. Under-feeding does not reduce your costs, it cripples your profit. Cow maintenance cost and land cost ensure this.

Finally, I refer to my July 07 article "Best Feeding Guides", your daily milk slips, as a powerful tool for revealing just how well you are managing your feeding of fresh cows. Butterfat percent indicates ration fibre. Goal for Holsteins is 3.6%. Protein percent indicates energy available, goal 3.25%. BMCC is a barometer of cow health. Cows struggling with infection are not high performers. Litres produced are a direct indication of feed intake, assuming a balanced ration.

We all must recognise, the cows we milk today, by virtue of 40 years of AI, are bovine athletes – a far cry from the cows I started milking. In our Australian "sport driven culture" this analogy should be well understood, and the accompanying preparation and nutrition demand for high performance – no second prize!