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Transition Management
From Dry to Fresh Cow

As I sit at my desk pondering how to write on this subject for the forth season and not be repetitive, I concede it's impossible. There is not a lot new in transition cow management; ongoing refinement, and research increasing our understanding of its benefits; however the economic impact of a good lead feed program is so great it justifies repetition.

The area receiving research attention recently is the far off dry cow and the impact of diet at this time on total lactation performance. Research on this has emphasised stable weight, that is, no loss and no gain. Gone are the days of relegating dry cows to the back paddock or out block assuming we can both have a holiday. This doesn't mean we have to put excessive time and effort into managing dry cow nutrition, but simply ensure the diet is conducive to the above weight stability goal.

Diet of dry cows will depend directly on the particular season. At the time of writing this article we had, in SW Victoria, received good rains. Obviously pasture will be on the menu for our dry cows. This will present a challenge in controlling weight gain and require ample hay in the diet for both roughage and to reduce energy density of lush autumn pasture.

Pasture hay can be used for dry cows, but needs to change to a low-potassium hay during the transition period (21 days pre-calving) to enable us to provide a negative DCAD diet. My choice is oaten hay for low K, palatability and intake. This is fed of course in conjunction with a grain mix containing anionic preparation to achieve a negative DCAD.

Both the diet management of far off dry cows and the springer/transition ration impact on all the same problems and support the same positive post-calving goals of a profitable lactation. Lead feeding is not limited to avoiding milk fever; in fact the range of issues being addressed in a good lead feed/transition program is wide, and all outcomes are interrelated. In other words, if you get one problem it is highly likely you will get them all and the profit from that particular cow has been lost within a week of calving. This is why transition management is often referred to as "The Window of Opportunity".

There are three issues at calving which precipitate all the metabolic calving problems. They are: 1) low blood calcium, 2) low energy or negative energy balance at calving, and 3) low dry matter intake both before and after calving.

Low blood calcium can be minimised by feeding a good lead feed 14 to 21 days pre-calving. 21 days being most preferable as all trial work on this subject confirms 'the longer the better'. A good lead feed mix will contain cereal grain, canola meal, anionic preparation and 50% of lactating grain mix additives. A good lead feed should have a DCAD of a minimum -2000 meq. Adequate blood calcium at calving impacts not just on milk fever, but also on displaced abomasum (DA). Elasticity of ligaments that pull the abomasum back into its correct position after calving is affected by blood calcium level. Blood calcium can be high enough to prevent milk fever, but not high enough for good ligament elasticity. If a cow goes down with milk fever at calving or soon after, she is at very high risk of mastitis infection, metritis and ketosis. Winner takes all!

Low energy, or negative energy balance at calving, will decrease ease of calving firstly, but then start excessive fat mobilisation to meet energy needs leading to fatty liver syndrome and ketosis.

Low dry matter intake (DMI) also plays a major role in both the above conditions, DA and fatty liver syndrome/ketosis. Dry matter intake post-calving is affected by the far off dry cow ration, or weight stability at this time, and adequate energy/protein density during the springing period when we are feeding a lead feed.

To summarise, here's a recipe to minimise all problems associated with calving, which have monumental impacts on dairy farm profits.

Far off dry cow: Assuming pasture will be available in April, ensure cows get 2 to 3 kgs of hay each day. This will control weight, but also provide good medicine to tired and damaged rumens. This time last year we had the reverse of this where I was encouraging farmers to feed grain with dry cow hay to maintain weight!

The springer cow: 21 days prior to calving feed oaten hay ad lib and 2 to 3 kgs of quality lead feed as described above, minimising pasture access. Include heifers in this springer group. Although they are less prone to milk fever they can suffer any of the other metabolic disorders and most commonly, udder edema, which is linked to a high potassium intake. Social adjustment prior to calving will help heifers to perform during lactation.

Post-calving: Our cow must have unrestricted access to the best quality ration we can provide to ensure she is fully fed, not just in terms of dry matter intake, but in nutrient density also. We will look closer at this issue next month.

One final word; if some cows are exhibiting any of the above diseases at calving, you can bet there is a large number of cows in the herd with the same problems, but at a sub-clinical level. Sub-clinical disease is the real thief of productivity and profit, as it often goes on for months as the fresh cows struggling to produce milk and overcome metabolic disease.