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Fresh Cow Strategies

The vast majority of fresh cow problems can be avoided through meticulous pre-calving management; mostly nutrition. We have discussed this in March's article, particularly the high cost of sub-clinical diseases of milk fever and ketosis. As recommended in March's article, and the availability of milk ketosis test strips (Genetics Australia), is a major leap forward in monitoring cows for both these problems. Rarely are ketosis and milk fever separated, and this test will certainly provide a report on our pre-calving nutrition. A large portion of lactation success is determined here.

Another post-calving test to verify, or signal the need to improve pre-calving nutrition, is blood testing calves for passive immune transfer. Not only will this tell us the calf's survival and life-time production potential, but also how well the dam was fed prior to calving via her colostrum quality.

Any cow not milking well immediately, and the colostrum test bucket can decide this, needs to be checked. Cold ears can indicate hypocalcemia and/or rumen acidosis or shock. The above milk-ketosis test strip will identify this. Temperature alone is not a good indicator of infection. A hypocalcemic cow will have suppressed temperature and can 'hide' a toxic uterine infection.

Manure quality relates to digestive function and should be a daily observation all lactation, but particularly in early lactation. Loose manure is no more normal for fresh cows as it is for mid-lactation cows. It is telling us something. Fresh cows are far more prone to lactic acid induced acidosis due to being 'off feed', that is, not grazing well or eating some hay, but still eating grain in the dairy. SARA form of acidosis is most common during lactation.

A very good analogy of Dr Mike Hutjens is: "Cows are like trains. They have the ability to sustain their productive interia better than other biological factories. However, if disease slows cows down or derails them, it is hard to fix cows so they achieve their full productive potential".

All the above relate to pre-calving nutrition, but can be indicators of the need to adjust Lead Feed DCAD to eliminate the cause for the sake of cows still to calve. We have this year, having been provoked by many farms wanting to use ryegrass based forages in their springer rations, intensified our pre-calving feeding programs to meet energy, protein and DCAD requirements. Energy and DCAD are not difficult, but protein certainly can be. We have employed several ration formulations to achieve a 15% crude protein in transition rations depending on both feed options and facilities on any given farm. They have ranged from the use of brewers grain, oaten/vetch hay and 5 kg/cow/day Lead Feed grain mixes to supply sufficient protein. All were custom rations for individual farms.

Assuming we have been successful in pre-calving nutrition and our cow has calved without problems, we now are faced with supplying enough energy to meet her hormonally driven milk production. The single greatest challenge in Australian grazing based feeding is dry matter intake. If we can achieve very rapid increase in feed intake, especially pasture, energy limitation is relatively negated. This autumn has presented us with the best chance of doing this for many years.

Again, if we have succeeded in pre-calving nutrition, health problems will not inhibit her appetite. Feed intake then rests solely on us as managers. The best pre-calving nutrition will be completely wasted if we restrict energy intake post-calving. Her drive to produce milk will cause her to subsidise energy deficiency with body fat. The risk with this of course is, again ketosis leading to fatty liver syndrome similar to what we saw last spring in high fat diets; excessive unsaturated fat which the rumen cannot convert to saturated fats overloading the liver. This can also cause BF% crashes.

The next risk factor is acidosis. Fresh cow rumens are very delicate organs and need the best of care. This is a major part of pre-calving nutrition; rumen adaptation to diet change. I like to see 1 kg of hay in fresh cow diets. Hay does nothing to help energy density, so minimising it is essential, but it does perform a wonderful task of slowing down rate of passage of feed through the digestive tract. Both this and high starch (grain) are the main culprits in early lactation acidosis.

Much of our autumn pasture is highly fermentable like grain. It is highly palatable too, which often does not help intake of pasture hay. We have often used quality oaten hay for this purpose due to its palatability, and hence our capacity to control intake and minimise wastage in achieving the 1 kg intake. Oaten hay is a wonderful rumen conditioner and balancer, covering a multitude of sins.

Fresh cow mastitis has several implications. It is immediately a stumbling block to lactation potential; often sets a cow up for repeat outbreaks during lactation, can be an indicator of impaired immune function, often from acidosis, and most of all, it costs us dearly in down graded milk payment, drugs and discarded milk. Failure to remain in premium quality payment can escalate to \$250/cow/lactation. Dry cow and particularly Teat Seal are powerful tools to combat this problem and some farmers have elected to use veterinary services to ensure, Teat Seal especially, is administered with 'surgical' hygiene. I have a client who has experienced substantial success with Teat Sealing first calf heifers.

We have daily indicators to chart us through this high risk period: Manure is supreme – the window of the rumen! Followed closely by our daily factory reports: litres, BF%, MP% BMCC, and hopefully soon MUN data. Individually; litres equates to intake or energy intake at least, BF% to fibre or excess fat, MP% to energy mostly, as ration protein is rarely deficient in pasture fed cows, BMCC, as above – financial loss and possible acidosis induced immune suppression. There will always be 'cross-checks' between these test results to verify any of these issues. A causative issue will reflect in several of these results, and manure consistency changes will certainly confirm nearly all problem diagnosis from this data.