



Dry Off Body Condition Score

January's column gave an overview of five basic steps to increasing dry matter intake and hence milk production and profit. Over the next five months I intend addressing those five steps in more detail in time for most farmers to take action required to achieve their goals and see improved lactation performance.

Our goal for dry off body condition score (BCS) is 5. Any score lower than this is placing a ceiling on next lactation's potential production. BCS 4 can limit milk production by 1000 to 1500 litres. At BCS 4 or worse, the cow's milk production is limited to what she is able to physically eat in the first 100 days to achieve peak milk production. Peak milk then determines her remaining lactation potential. It is all about momentum. The 'production fly wheel'. The faster we can get it spinning in the first 100 days the longer and faster it will keep spinning. Without 40 – 50kgs of expendable body weight to throw behind the 'fly wheel of production' she is really struggling and totally dependant on what she can eat each day to build momentum.

How to reach BCS 5 at dry off. A fully fed cow in late lactation, around 18-20 kgs dry matter/day, with a ration average of ME 11, NDF 38 and Crude Protein 16-17% will dry off at BCS 5 without any further assistance. Further, she will also be milking very well as a bonus. The most valuable tool to maintain a ration of these figures is grain. I wrote an article in December for my clients entitled "Grain The Fibre Balancer", a copy of which I am happy to fax to you, explains the value, and return on investment of feeding more grain in conjunction with high fibre summer feeds to sustain production by producing a ration of the above qualities.

Turnip and similar fodder crops are a wonderful inclusion in a summer ration, and can, to a lesser degree, achieve the goal we aim for by increasing grain feeding to maintain production and live weight gain in late lactation. These crops have high energy and low NDF (fibre), like grain, and are, like grain, very rapidly fermented. As a result, due to inadequate buffering and rumen mat, generally their inherent high feed value is not well utilized, and worse, they often cause rumen acidosis further reducing other feed's utilization. Feeding a minimum of 1 kg/hay/cow prior to grazing crops will improve their utilization and reduce ruminal digestive problems.

Many herds grazing crops now have more than enough energy in the ration, however they also have low milk protein test (less than 3.25% Holstein) indicating poor energy utilization due to acidosis and too rapid passage of crop through the digestive tract. This certainly is lost opportunity. Low intake due to high fibre diets and reduced utilization from poor feed management of crops are the first limitations to achieving BCS 5 at dry off.

The next threat to our goal is February/March's traditional 'feed hole'. Many cows still milking through this period often go backwards in condition as they try to keep milking by genetic drive. Their feed intake and nutrient density declines substantially putting them back in the same negative energy balance scenario as early lactation with a consequent drop in body condition. The cause here is simply not enough feed on offer each day. Silage often has all been consumed and replaced with far lower feed quality hay. Intake declines due to high fibre, but worse energy, protein and digestibility decline at a far greater rate. Again, grain has a very strategic role in this situation bearing in mind we are now feeding for next lactation.

Many dry cows suffer the same fate even when fed 'all they can eat' of pasture hay. The dry cow (Holstein) requires 90-100 MJME/day. Average pasture hay runs around 8 MJME and has an NDF (fibre) 65%. The dry cow would need to eat 12 kgs of this hay to meet her needs for maintenance and pregnancy or loose weight. At NDF of 65% she cannot physically eat 12 kgs/day. The dry cow ration either needs to be partly silage of higher feed value or contain some grain to provide enough energy to meet her needs. Weight loss during the dry spell is a most costly management failure and happens more often than many of us would like to admit.