



## Best Feeding Guides

The best feeding guides are at your disposal, and updated daily – the daily milk slip, fax or email from your milk factory, giving Litres, BF%, MP% and BMCC.

I learnt at a very young age to be able to walk through a milk room and read the milk pick-up data on the wall without turning my head. Then, casually ask the farmer how many cows he was milking and with lightening fast mental arithmetic, calculate his litres/cow. Oh how pride and ego cultivate an evil heart!

Never-the-less, that competitive spirit enabled me to learn a great deal about feeding cows, for if the farmer had a higher 'litres/cow' than us, he was in for a lengthy interrogation. I eventually learned being puffed up about our own production did little for the bank account.

Firstly, litres of milk. Litres should be rising daily in fresh cows. Now this can be a difficult thing to assess on a per cow basis while cows are coming in daily, and perhaps some drying off. But generally speaking, fresh cows should increase in milk daily to a peak around 80 days in milk. If this is not happening you can be sure the cows are underfed.

Like milk production, feed intake increases daily, however a couple of weeks behind production, hence the loss of body condition to support that lag between intake and production. Beyond 100 days in milk, production should only drop 1 litre per month in fully fed (balanced ration) cows. Any further decrease is a signal of underfed cows. It is far more profitable to milk less "fully-fed" cows than more cows "underfed" because 7 to 8 kgs DM feed is required for maintenance no matter how many litres she is producing – efficiency of feed conversion. Litres are our guide to feed intake.

Butterfat test. BF% can be best likened to an engine temperature gauge. Is she running hot or cold? A BF% of 3.6 (Holstein) is ideal. A higher test indicates she's running cold and is not producing the litres she could, and any lower is alarm bells that the ration is too hot, inadequate fibre and the beginning of a rapid downward spiral of rumen function, efficiency and health. Obviously, late summer rations high in fibre are candidates for low fibre inclusions (grain) to sustain our 1 litre/month decline.

A BF% of 3.3 is the threshold of clinical acidosis and from there you can expect a rapid cascading of associated problems: lameness, diarrhoea, mastitis, salmonella, rapid weight loss, and if unchecked, death; not to mention milk production loss.

Around 11 am 60% of the herd should be lying down and chewing their cuds, anything less will line-up with declining BF% verifying inadequate ration fibre and ensuing acidosis. I am only too aware fibre is the greatest challenge this season, the subject of last month's article.

Milk protein test can be aligned to the fuel gauge. Our goal is 3.25% (Holstein). A lower test is telling us we are low in energy and drawing too heavily on body fat. In fresh cows this will lead to ketosis, fatty liver syndrome, can induce milk fever, but certainly reduce fertility. Dietary protein can affect milk protein test, but is not usually our problem in a grass based ration.

High pasture nitrates can influence milk protein test as they release large volumes of N in the rumen which requires energy to convert it to ammonia for excretion via the urine. This can take energy from milk production leaving the cow energy deficient.

Past experience has taught us the inclusion of 20 to 30 percent corn in the grain mix is very effective in reducing both the high rumen N problem, and increasing energy density of the ration.

BMCC in a herd that has good mastitis control program and generally low counts can also indicate acidosis rumen conditions from reduced immune function, a side effect of acidosis. Obviously, a cow fighting udder infection is going to have a reduced productivity, so whether BMCC is indicating environmental problems or acidosis all possible causes must be investigated. Milking machines can play a major role in cell count and should be serviced before calving.

There is one other test that US dairy farmers receive daily, and that's MUN – Milk Urea Nitrogen. This is indicative of rumen N as discussed above, and would be a valuable tool in identifying ration NPN (non-protein nitrogen) excesses. I tested pastures last year as high as 36% CP, a high proportion of which will be NPN which needs to be dealt with.

I ask you to lobby your milk company field officer to have this test included daily. From my information, most factories test equipment only requires minor additions to existing calibrations to supply this information.

These test figures are invaluable guides to productive dairying, but only refine and don't replace the art of the dairyperson – observation! The two critical issues are cow behaviour and manure. Lethargic cows have unbalanced rations and are well below optimum production. Manure is the 'window of the rumen'. It tells us all on rumen function and hence dietary problems or efficiency. Test figures will verify your observations and indicate where the problem is.

Cows are the same as us – they are what they eat!