



Health and Productivity

To state that a cow must be healthy for good productivity would not draw too many critics. We all know what a healthy cow looks like; sharp colours, smooth shiny coat, upright in stature, brisk walk, alert and bright eyes etc. We all notice them straight away and comment, yet rarely question why our herd doesn't look the same!

So what are the ingredients for a healthy cow? Firstly, a fully fed cow. Underfed cows are never healthy or productive in the long term. Cows are totally honest. They will return you directly in accordance with how you feed them. Cows do not have the intellectual capacity to devise schemes to defraud you of valuable feed.

Achieving a fully fed cow, however, does require some management input by us. Assuming she has all the grass or hay she can eat does not meet the criteria of a fully fed cow. The problem we face today is that the cows we milk are, genetically speaking, Formula 1 racing cows, by comparison to the cows I started milking 30 something years ago. Not only will they not run on "power kerosene or standard petrol" grade feeds, but also you will wreck them if you try feeding them at that level. As high-tech engines require fuels of equal technology so to do our current genetically superior cows of today's average herd.

Regularly I hear farmers say that cows only last a few lactations nowadays. The above is by far the greatest reason; today's cows are more genetically inclined to partition feed to production than maintenance. We try running Formula 1 cows on FJ Holden fuels. A fully fed cow in 2005 requires a diet of adequate energy and protein, not just in their correct proportions but also matched in fermentation rates to supply rumen bacteria with their nutrient needs, enabling the production of large volumes of microbial protein and volatile fatty acids to meet our cows protein and energy needs for milk production, maintenance, growth and pregnancy.

We must never forget we are feeding rumen bacteria, they in turn feed our cow. With this in mind, energy, protein and fibre are the essentials for rumen bacterial needs, however, as we like a comfortable environment in which to work and are most productive in such a situation, so too are our all important rumen bugs. Rumen pH is what I am getting at here. Every dairy farmer understands acidosis, particularly clinical acidosis, but the real thief of cow productivity in acidosis, like milk fever, ketosis and mastitis, is sub-clinical acidosis. The use of rumen modifiers such as a combination of Rumensin and Tylan promotes a more stable rumen environment, improving feed efficiency, milk production and growth rates.

Having done all we can to provide optimal working conditions for our rumen bacteria we need now to focus on mineral/element and vitamin needs to ensure all are adequately meet, and that they are not limitations to cow health and productivity.

Providing a cow with a premix containing Rumensin, Tylan, an adequate trace element mix and macro elements of calcium, magnesium, sodium and chlorine, generally costs about 5% of the cow's total feed cost. The implications of deficiencies of any of these can easily be many times this cost. Always remember, health, and hence production, will be restricted to the most limiting ingredient of the total ration. The chain is only as strong as its weakest link.

Deficiencies of trace elements, zinc, copper, cobalt, manganese, iodine and selenium are well documented in Australian dairy feeds, and unless supplemented will impact negatively on cow health and production. Similarly, demands for macro elements of calcium, magnesium and sodium are high in lactating cows for both milk production and cow health and physical function.

Vitamins A, D3 & E are extremely variable in feeds and we add them to our premixes as standard insurance against deficiency.

Early in my dairying career I read a sign saying, "All cows that enter this dairy are lactating mothers, and are to be treated accordingly". When we uphold this undeniable truth, meeting her needs both environmentally and nutritionally, she will reward us bountifully.