



Early Weaning

For those passionate about their calf rearing, this subject usually raises hackles. The fact is, when done correctly, it is better for both calf and pocket. Raising calves is as concerned for post-weaning growth and development as getting a calf through alive.

Long periods on milk usually only produces a fat calf and little else. Without feeding to promote rumen development, our 'fat calf' will fall in a hole post-weaning as it will be severely handicapped in its capacity to digest solid feed. Frequently, the reason given is availability of waste milk; but I suggest if we have such volumes of waste milk, we have a very pressing milk quality issue! The calf rearing system may appear low cost, but the milk production enterprise is subsidising it heavily. Antibiotic milk kills off rumen bacteria and loads the calf with bacteria it could well do without.

The 'tradition' argument always comes up too: "our system has worked in the past, why change it". I see few 35 Fergies pulling Connor-Shea Sod Seeders these days! The tradition thinking is based on calf survival mentality of the 70's, not economics of dairy farming in 08. The bottom line is; milk and labour are factors in heifer costs.

There are six areas which have most impact on thrifty energetic heifers, and three of these are macro in importance and three are of lesser influences, but still demand good management. The three macros are: nutrition prior to birth, colostrum quality and administration, and rumen development. Failure on any of these three; and all the attention to the lesser issues will never compensate. We will have created an under-performing cow for life.

February's 'Calving Down' article, although addressing the dam's wellbeing and productive future, has the added advantage of preparing a strong and vital calf ready to meet the challenges of a bovine athlete in today's highly volatile milk, feed and fertilizer marketplace. The balanced, energy, fibre, protein and mineral ration of the springing cow for the last three weeks of gestation will ensure a nutrient rich placental blood supply to our calf at a time most critical to its post-birth viability. A well nourished dam will ensure her off spring has a quick and easy birth, avoiding dystocia (a slow and difficult birth) and its legacies of low body temperature and blood sugar levels – the calf's first threats to life.

Calves are born with no immune function, and only colostrum can provide this, and, for up to 8 to 10 weeks, plus nature's own growth hormones. Colostrum quality is important, can be easily tested, but generally its quality rises with maturity of the dam. Again, the lead feeding program has significant impact on colostrum quality, particularly from protein content of the lead feed grain mix.

Considerable trial data from the USA gives unquestionable support to the “two feeds of two litres of colostrum within the first twelve hours of life”. I well know this can tax labour, but it’s effectively a life insurance policy for the calf and her longevity in your herd. Further data confirmed heifers who did receive these 4 litres of colostrum in the first twelve hours produced 1000 lts more milk in first lactation and 1600 lts more in second lactation. At 50+c/lit this is serious profit from minimal input.

Rumen development is the real key to early weaning. The calf’s capacity to digest solid feed determines when she can be weaned. The calf’s ration should consist of; four litres of milk, fresh water adlib, and a quality grain mix of several cereal grains, 20% canola meal and minerals, both macro and trace, and rumen modifiers. Most frequently, this grain mix is pretty close to the mix the lactating cows are receiving in the dairy, and most of my clients simply offer grain mix from the dairy silo – can’t beat it for nutrition and cost!

Note there is no hay in this ration. Starch from cereal grain is what stimulates rumen papillae growth, and their development directly determines capacity for nourishing our calf from solid feeds. If hay is available calves are more likely to amuse themselves chewing on hay which offers nothing to rumen papillae growth, rather than eating grain mix, which does drive rumen maturity.

Paramount to grain intake is water intake. They go hand in hand. Consequently, fresh clean water away from grain to prevent cross-contamination is essential to increasing grain intake. Accelerated calf growth techniques use warm water fed in the afternoon (like a twice a day milk feeding system) to encourage water intake to the goal of increasing grain intake to hasten rumen maturity and early weaning. Once the calf is consuming 2 kgs of grain, the rumen is developed sufficiently to digest solid feeds.

Weaning is not dissimilar to transition management of springers in that we need to eliminate all possible stresses likely to set the calf back. Remove milk but leave the calf in her group and environment for 2 weeks to adjust. Her social security of peers and environment will enable weaning without stress. The group is now ready to be pastured. Stress at weaning most frequently manifests itself in respiratory problems, and accounts for 50% of post-weaning deaths. Colostrum quality and quantity are the best insurance against pneumonia.

The remaining two issues are sanitation of housing and feeding equipment, and relevant vaccination protocols. To maintain clean dry bedding in pens is both expensive and labour intensive, and often the downfall for an otherwise good calf rearing system. The acid test is to sit in the calf pen yourself; a wet butt and suffocating ammonia smell are alarm bells.

Like all successful and profitable dairy farm operations, planning before the event is the easiest way to achieve desirable outcomes.