
DAIRYTECH NUTRITION

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Performance Products - Nutrition Services

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Lactation Persistence

Genetically our cows are capable of sustaining production with a 1 litre drop monthly from peak milk. Reality paints a very different picture. Autumn/winter calving herds can generally 'keep it together' till November, especially if peak milk occurs at the correct time; 100 days-in-milk. Peak milk that occurs at 150 days is a feed induced peak (spring) and tells us we have failed to feed our fresh cows well enough. This has its consequences in both persistence and subjects we've addressed over recent months.

We saw a big improvement in production last winter due to seasonal conditions and this is likely again this year. The period we mostly fail in is November to dry off with as much as 10+ litre drops over just a few months; most particularly, and historically, around Christmas. Perhaps contrary to this was last summer for those who had turnip crops to graze over this period. Their cows hung-on until crops finished, then dropped significantly.

The study of whole lactations can be very instructive to improving lactation persistence and performance by identifying the cause of milk production drops in excess of our cow's genetic potential. From this information we can set about planning a feed program to avoid, or at least minimise these excessive milk production drops.

Over July and August each year we perform these reviews on our client's herds and feeding in the form of a Feed Budget Post-Mortem, comparing with the projected Feed Budget from the previous August and analysing our successes and failures. From this we prepare a Feed Budget for the next twelve months aimed at overcoming our failures and capitalising on our successes; either the designed ones or those that 'happened'! Obviously the most significant part of this exercise is planning summer fodder crop production including varieties and how they performed and why.

Southern hemisphere grazing production systems have considerable cost-of-production advantages over northern hemisphere housed and lot fed systems, however, for many years these northern hemisphere systems have been very competitive due to far higher production per cow.

We have been slowly closing that gap, but have enormous untapped potential through feeding to close it even further, and at a lower cost, due to housed systems being more energy (fuel/power) intensive and very vulnerable to future energy costs.

We certainly are subject to probable hikes in fertilizer and grain costs, which should drive us to increase dry matter harvested per hectare, and crops look our best option.

The variations in crops I see is large, and directly attributed to how well they are done. The two most outstanding issues are: seedbed preparation/weed control, and fertilizer.

The last two summers have produced turnip crops (dry grown) in southern Vic around 8 to 10 tonne DM/ha. Obviously these were very well produced crops and lacked nothing in fertilizer or moisture, but they do highlight the potential of turnip crops to yield very high amounts of energy and protein per ha over just eight weeks growing time. This is more than most pasture paddocks would grow over a year. Needless to say, to grow this tonnage we need to apply fertilizer appropriate to that volume of dry matter grown. This is a major limitation causing many of the yield variations.



Grazing management is equally important. Eight week varieties need to be consumed within four to five weeks of maturity. The photo shows a turnip just out of “use by” time with pithy deterioration occurring. The palatability of turnip at this stage and beyond decreases rapidly and wastage rises quickly. The abundant yields last summer caused many farmers to reduce the daily area grazed and that produced significant wastage. The answer is, graze twice daily to fit within the “use by” time frame.

Our Feed Budget determines the area to be sown for each month’s grazing based on cow number, desired intake per cow (5 kgs DM), yield rate of 5 tonne DM/ha and number of days in any given month. Once we have sown this area, irrespective of eventual yield, it must be grazed that month to avoid this palatability problem.

Turnips are exceptional for December/January, but we have struggled with continuity of this level of quality feed intake into February, March and April. Later maturing varieties do not yield either the same energy or are they as palatable (intake). The use of tropical grasses, sorghum for example, has its problems too. A cool summer like last season retarded growth significantly, and the previous warmer summer made management through grazing alone very difficult due to crops going to head before cows could graze them.

There may be some light appearing with trial work on beet crops. Due to the fact they take 120 days to mature, they can be sown (dry land) in October while soil moisture is good, and be ready to graze in February onwards. I’m told they need precision management, very large amounts of fertilizer, but can produce up to 40 tonne DM/ha. This would lend beet very nicely to small areas that could be guaranteed yields through irrigating with effluent. One hectare could provide 5 kgs DM beet/cow for a 250 cow herd for a month! We need to see more data on these beet crops first.