MANAGING CHANGING PASTURE QUALITY

Pasture quality plays a significant role in cow performance at this time of the season. Changes due to environmental factors or grasses entering their reproductive phase leads to decreased dry matter intakes (DMI), decreased nutrient intakes, declining milk production, and may impact on reproductive performance and cow condition. All grasses like to go to seed at least once a year, with some older cultivars going to seed as often as possible. Increasing ground temperatures and increasing day length are the key triggers for initiating reproduction in plants. If weather conditions have stressed the plant e.g. very wet or dry, then the changes associated with reproduction can be exacerbated as the plant switches into survival mode and will go to seed as early as possible in the spring.

The changes in pasture quality that occur when the plant turns reproductive are a lower leaf to stalk ratio, an increase in the fibre levels (which slows the bite rate down as each mouthful is harder to collect), as well as lowered digestibility and increased rumen processing time, hence a lower DMI. As cows have to ruminate, drink, sleep and walk to the shed, they can only take a certain number of bites a day. To maximise DMI at this time of year you need to maximise the amount of DM available (& harvested) for each mouthful. While total DM available may seem more than adequate for cow requirements, if intake is compromised because of pasture quality, cows will be underfed. This season most of you would have thought that the cows were leaving high residuals because they were fully fed. But with high NDF levels in the grass, it was simply a fact that the cows “felt full” with less grass in their rumens, and the grass left behind was too tough for them to harvest.

The aim of pasture management is to increase total milk producing nutrient intake for as much of the season as possible, while limiting potential waste. So what are the options for managing pasture in the next month or so to increase DMI and keep quality as high as possible?

Topping:
Topping in front of the cows will speed up bite rate and bite size, increasing DMI. It will also improve pasture quality in the next round by an average of 1MJ/kgDM. The risks with pre-topping are doing too much at once and/or beginning too late. It is best to start before a problem exists, so that the first return grazing includes some high quality leaf at the time that the plants are starting to deteriorate in quality. The risk with topping too big an area is that you can fill the cow up with stalky junk, actually decreasing DMI intakes.

Post grazing topping carries a much higher risk of wasting potential feed. There are very few herds in NZ that are so well fed and high producing that they cannot eat more.

It is best to start by topping 1/3 of the grazing area. This means that you will avoid overfilling the cows with junk while giving the cow a range of feed types in the same area, so they can balance their intakes. Ideally you should top at the level that you would expect your cows to graze to. Cut in the afternoon in dry weather prior to grazing. Some wilting will occur, and this will make it easier to eat, and as some decay would have started the grass will have higher sugar levels and should be more palatable. If, after 2-3 days of getting used to topped pasture, the cows are leaving a lot behind, you probably have a genuine surplus. In this case you should look at your rotation length.

Rotation length:

i. Reduce the number of paddocks available by shutting up for silage. Consider cutting silage earlier to allow paddocks back into the round. You will lose some yield but benefit from the improved pasture quality.

ii. Shortening rotation length by allowing a greater area per cow, which allows preferential grazing of best quality pasture for 1 to 2 rotations, then harvest a much larger area of poor quality residual for dry cow feed. This ensures all the good quality grass has gone into the vat.