Maximise the benefits of grazed grass

Utilise grass effectively to increase milk prod uction in your herd

Grazed Grass is a vital part of summer diets

James Black, technical specialist from feed company John Thompson & Sons, looks at the importance of grazed grass and explains how producers can improve its utilisation and increase their herd's milk output by utilizing grass to its full potential.

March came and went and 2008 registers as another year with great intentions of extended grazing not being fulfilled on many units. Many herds are still weeks away from being turned out and the cold wet spring has meant ground conditions, not to mention the lack of grass growth, has stalled any intentions of including grass in lactating cow diets.

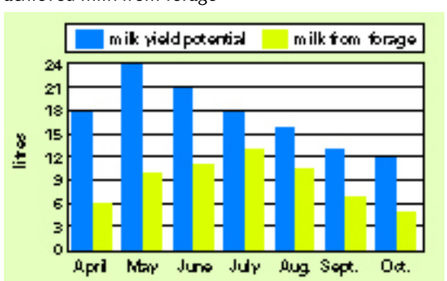
Despite the late start, grass is still a vital ingredient in all lactating rations and must be exploited as soon as is practically possible on every unit. No producer needs reminded of the rising input costs, which are so high that even grazed grass is looking expensive. Spring is an awkward time when feeding cows for every producer. The daily juggle of weather conditions, grass supply, concentrate feed rates, forage stocks, on-going fertility programmes and other field work mean that many decisions have to be made each and every day. As a result, many producers choose to ignore the merits and importance of grazed grass – to their herd's and business's cost – in lactating cow rations.

Potential milk

TMRs can offer simplicity and control at this busy time of year. But is it ideal for feeding the 'stale' autumn calver? And do we fool ourselves with high daily herd averages while margin per litre falls? Do herds suffer from more nutrition related problems such as LDAs, clinical acidosis, and SARA?

Feeding can take all day during the winter yet, when field work beckons, fertiliser spreaders and grass harrows, for example, can be hooked onto the feeder wagon tractor and field work completed in addition to feeding cows. Surely something has to suffer? Increasing nutritional problems, decreased milk from forage and even longer than usual working hours can all result when systems are stretched. Feeding systems must be profitable in the current market, but they also need to be simple so that they can be completed quickly and easily on a daily basis at busy times of the year.

Figure 1 : Potential milk from grass and achieved milk from forage



Grass has always been accepted as a summer feed for dairy cows and yet producers can struggle to utilise it effectively. The seasonal potential milk production of grass is well known, but many herds struggled to achieve it (see Figure 1).

The question that any nutritionist or producer has to ask is how can all of this potential be reached.

In many instances, larger herds mean longer milking times and increased distances to grass paddocks – both of which impact on grazing time and dry matter intakes (DMI). DMI is under intense pressure at grass due to sward height, density, grazing time and the uncontrollable grass dry matter. Daily variations in grass dry matter mean that the cow has to consume between 60 and 100kg fresh weight of grass to meet her requirements. Imagine trying to calculate herd requirements if that was silage – the feed bunker would be overflowing with waste. The same happens with the grazed grass – the sward deteriorates, energy and protein levels fall, refusal increases and utilisation and efficiency decrease (see Table 1).

Huge variations in feed rates are required for high yielding cows, depending on, for example, grass dry matter, sward type, and stage of maturity. We need to look carefully at how we can meet the requirements of a 45-litre cow under sub-optimal conditions.

The situation for the 27-litre cow is different. This cow could perform at these milk yields, whie utilising grazed grass, in both poor and favourable conditions. The two different cows require different feeding strategies if they are to reach their potential during the grazing season.

Split system

A system has been developed by Thompsons to remove the daily decisions of deciding what maintenance ration the parlour computer should be set at and how much buffer should be fed. It splits the herd according to stage of lactation and peak milk yields achieved by the herd. By following the 'fullgraze' system, high yielding fresh calved cows must be housed to achieve the peak yields desired. By keeping these cows on a full winter ration, the producer has complete control of the situation and can maximise milk from forage from cows that are more than 120 days in milk.

The first 120 days are extremely important in achieving the desired peak yield as this will control lactation yield, but also ensure that this cow regains a positive energy balance and avoids fertility problems. The fluctuations and variability at grass on cows yielding more than 33 litres quite often causes them to remain in a negative energy balance for prolonged periods.

These post 120-day cows should not receive a buffer feed and should milk well at grass. And, assuming that there is enough grazing close to the milking parlour, this system allows intensive milk production during the summer season. Excessive levels of concentrates and silage have been fed in recent years to cows at this stage just to maintain milk yield. These cows need good quality grass, day and night, if herd productivity and profitability are to be maximised.

Table 1 : Differences in grazing under ideal and 'normal' conditions

	grazing time (mins)	DMI/ min (kg)	DMI (kg)	MJ required	energy shortfall (Mj)	concentrate balance (kg)
ideal conditions						
45 litres	600	0.03	18	314	107	9,5
27 litres	660	0.03	18	218	11	1
'normal' conditions						
45 litres	510	0.025	12.75	314	174	15
27 litres	510	0.025	12.75	218	78	7

Mixer wagon

Post 24-day cows, irrespective of milk yield at this stage in the grazing season, can milk on very low levels of concentrate. It is pointless feeding these cows poor quality silage or excessive levels of concentrates as these are just substituting grass intakes. Increase profits by letting these girls work harder off grazed grass this spring.

Flexibility must remain in any grazing system and it is critical that some planning is carried out before the season begins. Resist the temptation of keeping more cows in just because the mixer wagon is running. It is important to be ruthless and push cows out to graze, if conditions allow, to maximise milk from grass this season.

Do not fool yourself that you are operating efficiently by letting all cows graze by day and housing them on a partial TMR at night. This is the worst scenario as stale cows are filling themselves with low value silage and expensive concentrates, and using grazed grass as a mattress during the day.

James Black