BUFFER FEEDING HIGH YIELDING DAIRY COWS

The main constraint cows experience at grass is an effective shortage of energy almost entirely due to relatively low total intakes of forage from grazing. The potential consequences are:

- Excessive loss of condition in early lactation - often undetected until well advanced.
- Poor fertility - not apparent until the damage is done and cows are returning to service. This is particularly a problem for summer calvers.
- Poor milk protein production - also often not apparent until much of the damage is done
- Shortened lactations.
- Increased involuntary disposal rate because of failure to conceive to fit the pattern.

Consider the new calved and high yielding before all else - if necessary/practical separate them from stale cows. If herd feeding is planned based on cows passed peak, those in early lactation will suffer. This is usually not seen until much harm for future productivity has been done. It can be quite easy for a farmer not to realise that cows at green grass under a blue sky with sun on their shining coats are actually losing 1-2 kg bodyweight per day undetected.

**Buffer Feeding System**

- High nutritive value and palatable conserved forage is required. Maize silage from the previous autumn is often used most successfully. First cut grass silage or whole crop mixtures can also be used.

  **The timing in the day when the buffer is offered is critical for the whole approach to work** - for early lactation cows in particular. They need to be brought into the buildings, a yard or a bare paddock and confined there, with access to the buffer only, for 2-4 hours before afternoon milking. The amount should be adjusted so that it is finished 20-30 minutes before milking. Consumption of grass after evening milking is higher, according to research done at the Institute of Grassland and Environment Research, because leaves accumulate highly digestible sugars during the day and herbage dry matter increases as water is lost from the leaves. Feeding the buffer before milking allows this attribute to be better utilised and enables cows to eat more food in total. If the facilities allow it, some concentrates should be mixed with the forage as well. High yielding newly calved cows will always have difficulty achieving reasonable nutritional balance where concentrates are fed only twice daily at milking time.

- Buffer feeding at or after milking or in the field results, even in staler cows, in uneven and lower total forage intakes and wastage of the buffer. Substitution by the buffer of grazing may be the main outcome.

- Strip or paddock grazing is often just right for total utilisation of the grass but just too tight for the cows - the newly calved in particular. It is quite common to be able to plot when cows have gone into fresh paddocks just from a rise in the bulk tank returns. That means grazing becomes limiting as each paddock gets used up and it is always the recently calved which suffer the most. Strip grazing is more difficult to monitor but generosity to the cows is best in the long run for total productivity and for revival of the pasture.

Consider blood testing so that the cows can tell you themselves in good time if there is a constraint. Once they have problem, it is too late.

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