

BUFFER FEEDING HIGH YIELDING DAIRY COWS

Why buffer feed at grazing?

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

This constraint does not always show immediately as the high protein in the grass drives the milk yield. The cows look happy in the field, yet can easily be losing 1-2 kg of bodyweight per day undetected.

Potential consequences of low intakes at grass are:

- Excessive loss of condition in early lactation - undetected until well advanced.
- Poor fertility - not apparent until the damage is done. This is particularly a problem for summer calvers.
- Poor milk protein - shows up a few months later and then the farmer asks "what's wrong with the cake".
- Increased culling due to failure to conceive.

Good buffer feeding practices

Target the feeding at new calved and/or high yielding cows. If it is practical, split them from the stale cows. If not, you will have to accept higher feed costs, as extra feed will go to the lower yielding cows. If these lower producing herd members are lean, the extra feed will not be wasted. Beware feeding high levels to late lactation cows in very good condition.

How should the buffer be fed?

Most farmers assume that cows will help themselves if a buffer is available. To illustrate if this works, several thousand summer calving cows were blood tested to ascertain energy status. The buffer was forage and concentrates mixed. The results are as follows:

- Grazing and cake in the parlour - a massive 90% of cows short of energy.
- Grazing, cake in parlour and allowed to walk back and eat buffer - 50% of cows short of energy.
- Grazing, cake in parlour and confined on buffer overnight or for 3-4 hours/day - only 10% short of energy

This proves cows need to be confined on the buffer. They will not walk long distances for feed. They will not walk far to drink - watch them all go to the water trough when brought in for milking, even though water is available at all times in the field.

When should the buffer be fed?

3-4 hours before the afternoon milking. The cows need to be brought into the buildings, a yard or a bare paddock and confined there, with access to the buffer only, for 3-4 hours. The amount needs to be constantly adjusted so it is finished 20-30 minutes before milking. Bringing the cows in early is not an extra task. Most farms milk at around 4.00pm. Why not bring them in before the farmer has lunch? After milking, turning the cows onto good grazing is ideal as grass leaves are drier and higher in sugar in the evening.

A warning: 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.

What should the buffer consist of?

Maize silage, whole crop and first cut grass silage are the best choice. Medium energy bale silage, hay and any poorer quality forage will not give best results. The buffer should be at least as good as the forage in the field, ideally better.

Adding concentrates to the forage is essential for high yielding cows. Level and type will depend on yield aspirations and forage quality/quantity. As a guide, the minimum fresh weight forage should be at twice the level of concentrates, but higher forage ratios are preferred. Low dry matter feeds such as brewers grains, wet citrus pulp, vegetable waste etc should be limited because we are expecting the cows to eat grazed grass which is rarely above 20% dry matter. Too many wet products limit total intakes. An ideal total diet dry matter is 45-55% dry matter. Almost impossible to achieve with grazed grass.

Work the ration back from the parlour to decide how much to feed. Take a 40-litre cow. What is the maximum feed in the parlour? Say 8 kg. This is worth about 18 litres. We now need another 22 litres. If we assume the forage and grazing will provide Maintenance + 12 litres, we need another 10 litres - say 4 kg of concentrates.

How much conserved silage? As much as they can eat in the 3-4 hours confined and finished in 20-30 minutes before milking.

If only 10kg silage is available - some 3kg dry matter, we need 9kg dry matter from grazing. At normal dry matters, grass intake needs to be 45kg. Can the cows eat this much on this particular grazing? Look at the grazing and ask the farmer the same question.

We do not always see immediate benefits from buffer feeding, but we are feeding cows for the future, not just for the present. Underfed cows will only tell you how wrong it was when it is too late.

