Managing the Periparturient Cow

The time immediately around calving (periparturient period) is the most critical part of a cow's year for many health and production reasons:

- Higher yielding dairy cows are very susceptible to nutritional deficits at this time due to great metabolic change from dry to milking. So the aim of management in this period is to minimise these deficits particularly in relation to dry matter intakes (DMI's) and energy and mineral balance.
- Cows have reduced intakes at calving and their immune system is depressed. This makes the cow very vulnerable to periparturient disease which can have a large impact on the following lactation as well as increasing the risk of mortality.

In this fact sheet...

Milk fever

This is the most common nutritional problem immediately around calving. Death can occur either from the effects of hypocalcaemia, from injuries caused when struggling to rise, or from downer cow syndrome.

There are also many problems that follow on from milk fever including:

- A high proportion of cows that have milk fever or subclinical milk fever will retain their afterbirth and many of these subsequently develop metritis (womb infections).
- Cows with retained afterbirth or metritis will produce less milk per day at the start of lactation.
- Cows with retained afterbirth or metritis will take longer to show heat.
- Cows with retained afterbirth have reduced fertility.
- Subclinical milk fever increases the likelihood of a cow developing a left displaced abomasum.
- Milk fever can also dramatically increase the likelihood of getting mastitis in the following lactation and this is even more pronounced with coliform mastitis where the risk is increased yet further.

Milk fever can be controlled by the use of dietary cation-anion balance (DCAB) or more often partial DCAB diets in the last ten days of the dry period. These diets are now a vital part of management of the periparturient cow.

Body condition score can also influence the incidence of milk fever.

The control of milk fever with these types of diet has brought huge improvements in the health of cows at calving and in their subsequent lactation although they are not suited to skeletally immature maiden heifers.

A nutritional advisor working with your vet can advise on what is suitable on an individual farm basis.

Feeding times and space

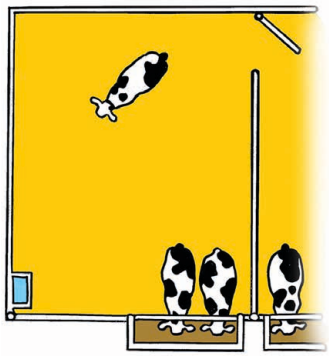
All cows should have free access to feed when they want it and this is even more critical in the late dry period and early lactation. Cows are a herd animal and will want to feed at the same time as the rest of the herd i.e. just after the feed has been freshly delivered. This can be critical if feeding space is limited, particularly for smaller younger cows, newly calved cows and heifers. Feed should be present at all times to maximise intakes.

Did you know?

On most systems cows need 90cm of feed space each. If space is inadequate intakes will be reduced predisposing cows to ketosis, metritis and left displaced abomasum post-calving.

Changing groups and pens

Changing groups and isolating cows or heifers can be detrimental to health. Cows should ideally stay in their late dry group and have an area of the pen, which can be sectioned off as a calving pen or at least be kept next to the late dry pen.



In the picture above 3 cows share a straw yard 30m2.

Space required for a cow in the late dry period is:
1m2 : 1,000L yield i.e.
10m2 : 10,000L cow.

Cow comfort and hygiene

Standing time is increased around calving, so it is particularly important to have a comfortable environment, for both lying and standing. Cow comfort and standing time can have effects on calving difficulties, metritis and lameness in early lactation. Hygiene is also critical at this time when the cow's immunity is depressed. Lameness can have an impact on feed intakes during the dry period; preventive and corrective trimming in late lactation can help in reducing lameness during the dry period.

Periparturient cows require;

- clean and dry bedding to minimise the risks of mastitis and metritis in particular,
- a partial (or full) DCAB diet in the last ten days of the dry period,
- feeding together with fresh feed within enough space,
- not to be disturbed whilst calving any more than necessary.
- minimal group changes,
- housing in clean, dry comfortable areas.

Cows should only be moved to the calving pen when they are close to calving. Do not disturb calving cows any more than necessary.

Cows should not stay in the calving pen any longer than necessary i.e. two days or less. Any longer increases the risk of disease e.g. mastitis.

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