Pitfalls in Early Lactation Management

As we get into the later days in February, calving season is well near its peak on farms across the country. The focus on a lot of farms now should be trying to ensure that cows are set up well to drive on milk production at this stage of the lactation, where the best opportunity is.

Transition cow management

The term 'transition cow' is often discussed among industry insiders, but what does this really look like on-farm? It refers to the three weeks before calving and the three weeks after calving. Getting conditions right during this period can set the cow up for the entire lactation cycle.

A cow's annual lactation needs to be considered a marathon, not a sprint to the finish line. If you are aiming to hit peak feed intake at roughly 8 to 10 weeks post calving, the cow's nutrition needs to be managed correctly from three weeks before calving onwards.

Monitor cows' body condition

Over the past few months, we have been a doing a lot of body condition scoring of cows. This is a worthwhile exercise to try to ensure that cows calve down in the correct condition and get a good start to the lactation. This year, cows in some instances were lacking slightly in condition at drying off due to the poor weather conditions we had at the back end of last year. On the flip side of this, cows were dried off early on a lot of farms, and these cows have had a long dry period. During the dry cow period, they will naturally increase condition on a grass-silage-only diet, but this is where we must be careful. We want cows to be 'fit, not fat' at calving, with a body condition score (BCS) of 3.25, and losing no more than 0.5 BCS units in the first three weeks post calving. This timeframe is critical to the animal's performance. Poor management will result in cows being in a negative-energy balance, which will reduce milk yields and cause health issues, negatively affecting farm profitability.

A lot of cows were dried off before mid-December for a variety of reasons, and it is important to keep a close eye on these cows. Some of them will not be calving until late March and into April, and this means some will have a dry period of well over 60 days. These are the key ones to watch, as overfat cows are at a far higher risk of metabolic issues at calving and post-calving. These cows just need a maintenance diet. Depending on the cow's genetics, even ad-lib feeding of just average silage will oversupply them with energy and cause them to put on too much condition.

Post-calving focus areas:

- **Negative energy balance**
- **Metabolic diseases**
- **Diet consistency**

Negative energy balance

Avoiding negative energy balance is a crucial part of the cow's transition period. Cows that go into negative energy balance can begin to lose body condition quickly if their energy demands are not met. A cow's milk output will rise more quickly than the cow's dry matter (DM) intake, meaning she will be starting on the back foot. When cows go into negative energy balance, ketosis can occur.

To prevent negative energy balance, aim to provide a high-energy diet.

For the first 10 days post calving, cows physically cannot eat enough to meet their energy demands. Immediately post calving, in the calving pen, getting a cow onto a high-energy diet with high-quality silage and a good level of minerals gets her off to the correct start. Ideally, these feeds will contain a level of calcium. The depressed dry matter intake of the cow post calving will take up to 10 days before cows begin eating above 15 kg of dry matter. After 10–12 days, the dry matter intake of the cow will gradually begin to increase to eventually reach 18–20 kilograms DMI, depending on the production and body weight of the cow in question.

Metabolic diseases

The main metabolic diseases that occur during the transition period are milk fever, ketosis and retained placentas. Clinical milk fever needs to be dealt with immediately. Make sure cows have access to a post-calving milking cow diet which offers a digestible source of calcium. Feed-grade limestone flour, for instance, can help overcome any subclinical cases of milk fever within 24 to 48 hours post-calving. Subclinical milk fever can lead to retained placenta as cows fail to pass the placenta in under 12 hours post-calving.

Diet consistency

Maintaining a consistent diet for the first three weeks post-calving provides consistency to the rumen bugs, making it crucial during the transition period. Offering dry matter intakes to match the cow's production and energy demands must be a priority on all farms. Keep silage in the diet for at least three weeks post-calving in order to provide consistency to the rumen bugs. Feeding a second forage, such as maize silage or fodder beet, can also be a great way of getting energy into the cow's diet post calving. Maize silage typically has a high dry matter of above 25 to 30% or higher, with a starch content above 25%. Maize silage fed at 12–15 kg fresh weight, along with high-quality grass silage above 70 DMD, will help maintain correct energy levels in the cow's diet.

As the dry matter intake rises, it is important to keep cows as full as possible with high-quality forage. Follow concentrate guidelines as outlined below, depending on the cow's milk production and the grass available in the diet. When no grass is available, use a minimum of an 18–20% parlour nut, because grass silage generally has a protein content of less than 12%. To encourage DM intake post calving, keep the protein content of the cow's total diet between around 16% crude protein.

Concentrate guidelines	Concentrate kg x litre of milk
In full-time (no grass in the diet)	0.33 kg x litre of milk
In by night (6–7 kg DM grass)	0.22 kg x litre of milk
Out full-time (15–16 kg DM grass)	0.11 kg x litre of milk

Dry matter intake

There is a lot of grass on farms this year, and we should be trying to get that grazed in accordance with spring rotation planner to try and get the second round of good-quality grass to align with peak milk yield. Cows can consume up to 20 kg DM of feed, depending on cow type, so it can be difficult for a cow to physically consume enough if she is only getting to grass for a few hours a day.

Ensuring sufficient dry matter intake is key at this stage of the lactation, to promote milk production in spring calving herds. Ideally, grazed grass will make up as much of this intake as possible, but this is completely down to weather conditions and is out of our control. Conditions have been challenging this year, with many farms struggling to get any grass into the diet. It is important for farms to push to get as much grass into the diet as possible but also to feed cows enough when they are indoors, to ensure that they are getting sufficient energy. Feeding high-quality forages is key; the quality of first-cut silage on many farms is good, and this is a big help in early lactation, as it is a major driver of intake and performance. You can help your cows consume more nutrients by feeding only the highest-quality silage in the yard to your fresh cows. Top-quality silage contains a higher energy content than low-quality silage. High-quality grass, ensiled and preserved well, will make silage that cows like to eat more of. Good-quality forage fed indoors is the ideal partner for grazed grass.