

When managing lactating cows, you only get out what you put in

Planning for a smoother transition

The physical and metabolic demands at calving are high.

Preparation can be likened to the training an athlete requires to attain top performance – it is all won or lost in the early stage according to nutritionist James Black.

text Allison Matthews

Modern dairy cows are quite often compared to high performance athletes in terms of the physical and metabolic demands that milk production places them under. Cows, like athletes, can also suffer the same outcome in lactation performance – it is all won or lost at the start or in the early stages. “The dry period is most often the period ‘neglected’ on many units with many cows just put out to rough grazing. And although the far-off dry period is a time for rest and recuperation, it is also a good time to carry out treatments such as hoof trimming and dosing. This gives the cows a chance to recover from the stress associated with such treatments,” says Thompsons’ nutritionist James Black.

Figure 1 highlights the crucial times from the end of one lactation to the beginning of the next.

Energy intakes should be adjusted 100 days pre-drying off to allow sufficient time to alter body condition.

“The cow should be dried off eight weeks before calving in the body condition that she should calve down at,” says Mr Black. “Under no circumstances should you attempt to alter body condition score during the dry period through restricted feeding or excessive feeding. All dry cow forages should undergo a mineral and nutritional analysis so that mineral imbalances can be corrected before problems arise.

Nutrition in this period should allow for maintenance of body condition with free access to medium-quality forage. “Grazing can often feature at this point as long as the grass is not high D value, high potash material. Cows housed should be fed lower D value silage, or silage with straw included, to regulate energy density if the grass silage is high D value,” adds Mr Black.

“Alternative forages are usually excellent dry cow feeds, but care should be taken on energy levels. Minerals and vitamins should be provided on a daily basis to enhance immune function and body reserves.”

Pre-calving problems

The close-up period marks the onset of calving and the start of the ‘transition period’. This is a time when producers should aim to minimise change. The ‘transition’ from a dry cow to a milking cow must be as smooth as possible to ensure that any reduction in feed intake is minimised.

“Three weeks before calving, cows should be fed a ration with a greater energy density, which also incorporates elements of the milking cows diet. This helps support the cow when intakes

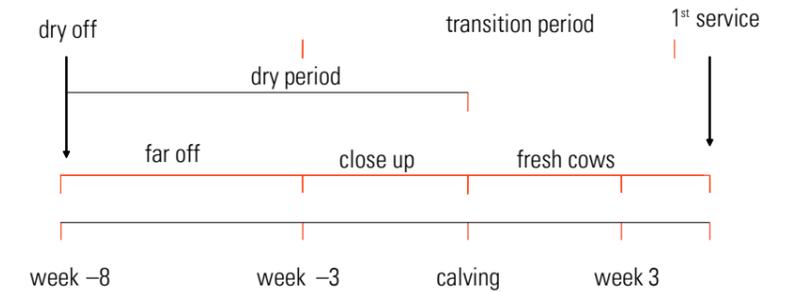


Figure 1: Crucial times from the end of lactation to the beginning of the next

are reduced due to the growing calf’s impact on rumen size,” adds Mr Black.

But the depressed intakes are not the only reason for accurately monitoring the diet, as Mr Black points out. “The incidence of diseases, such as retained placenta, displaced abomasums, metritis, and fatty liver, will all be exaggerated through incorrect nutrition pre calving. The diet should be palatable, nutritious yet bulky to maximise rumen capacity and allow cows to change onto the milking ration with little upset.

“Calcium boosts through the use of boluses, drinks or drenches at the point of calving have also shown clear benefits on many units, such as fewer metabolic problems and by encouraging the ‘get up and go’ required by many fresh cows,” he adds.

The reduction of stress around calving time can also benefit health and can be easily achieved. “The fewer social group changes the better. The ideal would be to keep the fresh calved animals in a separate batch for the first two to three weeks post calving, but this is not always feasible on many UK units. Possible solutions include running fresh calved cows with the stale cow base ration or even with heifers if there is a separate heifer group on the farm,” suggests Mr Black.

Controlled approach

A controlled approach to the level of concentrates given to fresh cows can mean the difference between success and failure. When a cow is giving 40 litres of milk at day seven, she is automatically in a negative energy balance and Mr Black warns that this is the road to a metabolic related disease.

“There’s plenty of evidence that shows that a two to three week build up of concentrates is beneficial. It allows the cow time to increase forage intake along with concentrate, which in turns reduces body weight loss and meets peak energy demands,” says Mr Black. “This may be at a later stage in lactation, but it shows improved synchrony between energy intake and milk output. All this should point to an easier transition and thus improved production and fertility for the next lactation.”

Dry cow nutrition does not have to be complicated on farm. The success of the system will rely on identifying the key areas of weakness on your farm and making minor improvements to give major benefits. |