

The concept of feeding dry cows in two groups is an idea from the US. But now that more and more dairy producers are using this approach, some are saying that keeping them in one group is not so bad after all. US-based nutritionist James Drackley is one such voice.

James Drackley, a farmer's son who grew up on a small dairy farm in Minnesota, studied nutrition and for the past 20 years has been professor at the University of Illinois. His area of expertise is the transition period of the dairy cow, the period from the start of the dry period until just after calving. When he began his tenure, feeding dry cows in two groups – one far-off and one close-up – was becoming the norm. But research during the past two years has caused James Drackley to change his mind.

How important is the dry period for the dairy cow?

"For the cow it is a very critical period. We know that common problems at the beginning of lactation, such as milk fever or fatty livers, can be prevented with good management in the dry period. Overfeeding cows, offering the cow a diet too high in energy during the dry period, is a common fault. This is very important particularly at the beginning of the dry period. I've seen it often that Nutritionist and producers still overlook this."

What is a good way to feed dry cows during their dry period?

"The basic concept of feeding dry cows is to offer the cow what she needs – no more and no less. This is how the idea of feeding dry cows in two groups was began.

"At the beginning of the dry period the cow needs less energy-rich fodder to cover her energy needs than at the end of the dry period. During the early part

of the dry period you see a greater intake of feed. Two thirds of US-based producers feed in two groups."

Does overfeeding during the dry period occur very often?

"In the US in recent decades more and more maize has been included in the rations for dry cows. Maize gives higher yields and, therefore, greater returns per hectare. Because of that rations contains more energy. "The result of this is that cows are too fat when they come out of the dry period and they take in too little feed round the time of calving and in the first few weeks after they have calved. The problem is that if you calculate dry period rations as an uptake of 10kg of dry matter, you don't know for certain that each cow is eating this amount. The intake is ad-lib so some animals will eat more and some less."

How can producers overcome this?

"By feeding rations rich in structure and low in energy, for example lucerne or hay. During the past two years the university has been carrying out research to weigh up the advantages of running two dry period groups with a high energy intake in the far-off period versus a single group with one ration low in energy.

"What struck us was that the take up of feed at the end of the dry period fell substantially in the group with a high energy intake in the far-off period and finally ended up at a lower level. The single group with less energy-rich rations did not have a low intake of food at the end of the dry period. These

animals got into their stride more easily after calving and in early lactation, with a greater feed intake and less liver degeneration and lower counts of ketones in the blood."

In your opinion is feeding in two groups therefore past history?

"Feeding in two groups is a way of fine tuning and is still a first-rate method. The theory of optimising the metabolism and, therefore, preventing, for example, fatty liver degeneration, still makes sense. What the research has shown is that the advantages not as great as originally thought.

"Large farms in particular find it more practical to look after animals on one group. Research by my colleagues showed that at the same time stress was also reduced. Fewer changes in grouping mean less stress and, therefore, an improvement in animal health. And we've also seen that producers prefer to reserve the high-value, energy-rich feed for the milking cows."

On some units dry cows are fed individually using out-of-parlour feeders. Is that an alternative?

"In the US the principle of individual feeding is too expensive. Dairy units are pretty much completely based on TMR rations. Attention is focussed on the correct mixing process. It is a complicated business to make sure that small particles of feed do not stick together, while ensuring at the same time that the straw in the ration is well chopped. That stimulates rumen function and the health of the cow.

"It is likely that smaller units can feed forage and concentrates separately. But the disadvantage of that is that you cannot check how much forage the cows have consumed. I expect that in the UK and Europe, with the disappearance of the quota system, a split will develop between family farms and agribusinesses, just as it has in America."



What are your views on harvesting 'dry-cow' forage by making targeted use of fertiliser?

"That happens on a limited scale in the US. Some farms apply chloride in order to optimise the cation and anion balance of the dry cow ration. That can happen, for example, in areas where the dry cows can graze. However, control via fertiliser application is not usual."

What, in your opinion, is the best system for housing dry cows?

"If I had a free choice as a producer then I would choose a free stal system with sand beds. It is well known that this is the best system for healthy feet and there is a low incidence of udder

"Feed intake falls less in dry cows in one group"

infection. The problem in the US as far as dry cows are concerned is overcrowding. Producers build sheds for milking cows, but not for dry cows. In an overcrowded situation cows have to compete for a place at the feed fence and that does not encourage dry matter intakes.

"Furthermore there is no space for the cows to rest. The units are becoming so large that there is rarely a field where dry cows can be turned out. However, everyone knows that exercise is good for dry cows. It improves muscle condition and their metabolism. With exercise the body uses more energy and fatty acids and ketones are eliminated."

Tijmen van Zessen

James Drackley: "There are fewer advantages to keep ping dry cows in two groups than originally thought"

'Split' dry-cow management is not vital