

Regular 'tune ups' will reduce

Calibration is key

When was the last time you checked your parlour feeders? Regular calibration will not only ensure accurate and efficient feeding, but it can also improve cow health, fertility and productivity. We spoke to a milking parlour specialist to find out more.

text **Rachael Porter**

It's yet another job on what is often a long to-do list and it's a vital task that can easily be overlooked. But calibrating parlour feeders can be the best two hours producers could invest in, according to Promar's milking systems manager Richard Hooson.

"On some units it will, in fact, be the final piece in the puzzle as to why cows are not performing as they should – be that in terms of milk production,

health or fertility. Feed accounts for 40% of costs on a typical dairy unit and producers need to feed cows accurately, whatever their stage of lactation. On paper, cows should be performing, but if they're not actually getting the feed and nutrition that you've allocated for them, because feeders are inaccurate, then you won't see the expected results."

Mr Hooson says that Promar recently carried out a survey of in-parlour feeders and their accuracy and two key points were revealed. "One was that older feeders require more frequent checking and the other is that newer feeders can be as much as 10% out," he says.

Poor calibration

Older parlour feeders definitely require more frequent checking and calibrating – ideally at least twice a year and more often if the concentrate fed through them is changed. "The results showed that some were dispensing between 57% and 122% more cake than they should have been. And this poor calibration is often 'disguised' because other feeders in the parlour are similarly inaccurate. This makes the average cake use across the parlour look fine," explains Mr Hooson.

He says that it's difficult to calculate the exact cost of inaccurate feeders on any unit. "But if we take an

extreme example, where half the feeders are dispensing 75% of the required amount and half are giving 125%, the financial costs stack up considerably through under and over feeding cows. Three quarters of the loss is due to reduced milk production from high yielding cows in the herd and the remainder is accounted for by wasted concentrate, fed to the low yielders." Mr Hooson says that putting a financial cost on this scenario, with a milk price of 28ppl and a feed price of £220/tonne, the figure comes out at a cost of £277 per cow per year.

"These are large numbers that producers can't afford to ignore," he adds. "And there's not always a simple answer. Ensuring that parlour feeders are regularly calibrated is the easy one – but this might not always be possible, particularly if feeders are very old.

"Another option is to stop feeding in the parlour, but again this is not without its issues. The third option could be to replace old feeders with newer and more easily calibrated ones. With some simple feeder systems, the investment could be £500 per point and the payback period would be, typically, 24 months. Or, putting it another way, a 24-month hire-purchase agreement would cost the same as the reduction in concentrate cost due to less waste."

Feeder-to-feeder variation

Lely says that the increase in yield can be as high as 20% when producers switch to robots. Mr Hooson believes that at least half of this response will be due to accurately feeding individual cows, compared to their previous in-parlour system.

Looking at newer feeders, regular calibration is vital. The survey results showed minimal feeder-to-feeder variation among newer feeders, but they could still easily be up to 10% out. "And that is purely down to changes in cake density," explains Mr Hooson. "It might not sound like a lot, but applying the same principles as the cost calculation example, this equates to £51 per cow in additional feed costs."

He adds that it's interesting that cake is bought in tonnes, but most feeders are feeding out a measured volume. "So it's little wonder that there are discrepancies when feed is accurately measured."

Mr Hooson stresses that the solution here is to calibrate with every load, if possible, or at least every time the formulation changes. "You might think it's a faff to do, but remember that soya is 33% denser than wheat flour and 5% denser than rape meal. So several of these small changes in formulation can significantly alter the volume of a kilogramme of cake."



Richard Hooson: "Calibrate feeders with every new load, if possible"

waste and improve efficiency

to feeding accuracy



Regular measuring really is worth the effort. Producers can do it themselves – it’s not difficult and just requires a set of accurate weighing scales. “You just need to measure a kilogramme from all the feeders – and check that it really is a kilogramme that’s dispensed. It is laborious, but it’s well worth the effort.

Regular testing

“If time is tight, then ask your parlour consultant to include it in your regular parlour test. It’s well worth the investment and they’ll probably also be more skilled at calibrating feeders that are ‘out’. It’s worth adding it to your annual static or dynamic milking parlour test too, as a matter of routine.”

And, if your parlour feeders are past their best, investing in new ones will be money well spent. “After three years of low milk prices, the market is finally picking up. And producers with a little cash in the bank may start thinking about where that money should be spent. I’d like to firmly suggest that they look at new in-parlour feeders, particularly if they still have a vacuum operated system. Not only will installing electric ones improve feeding accuracy, but put an end to vacuum fluctuations during milking.

“Spend £15,000 on new in-parlour feeders and the payback period can be as short as nine months. For some units, with old and problematic feeders, investing in a new system should be a no-brainer.” |

Concentrate feeding: regular calibration is key to maintaining accuracy