

Fewer cows with

In collaboration with Wageningen UR, animal feed company Nutreco has developed a formula for concentrated feed which reduces the risk of milk fever. Result: healthy cows which are productive again soon after calving. TEXT AND PHOTOGRAPHY HANS WOLKERS

With their daily yield of 30 litres of milk, dairy cows are like top athletes. And after calving they can give twice that amount of milk. 'It is as if the cow runs a marathon every day,' says Javier Martín-Tereso, former PhD researcher at Wageningen University, part of Wageningen UR and now manager of ruminant research at Nutreco.

But the cows' daily marathon is not without consequences. It brings with it a risk of milk fever, an acute calcium deficiency. Calcium is an essential mineral and cows with a deficiency look tired, do not stand up and stop eating. Dairy cows need extra calcium because of their milk production, but gestating cows are not milked for the two months before calving, so in this period their calcium needs go down. After calving the cows produce so much milk that there is a massive spike in their calcium requirements. But by now the animals are no longer used to extracting calcium from their feed or their bones, so a deficiency develops. Most farmers face this problem, some more than others. It is estimated to cost about 200 euros per cow per year.

RUMEN-RESISTANT

As a researcher in the R&D department at Nutreco, Martín-Tereso came up with a possible solution: start the cow on a low-calcium diet three weeks before she calves. This will stimulate calcium absorption by the cow and

prepare her for the high calcium requirement after calving. 'Given that most feeds are full of this mineral, it was an obvious solution to add a calcium binder to the feed,' says the researcher.

The calcium binder of choice was phytate, a substance also used to prevent kidney stones in humans. Phytate binds calcium so that the intestines cannot absorb it. But in cows this substance is broken down in the rumen, so the researcher also thought up a way of making phytate rumen-resistant. His ideas were worth a patent and a PhD research project at Wageningen University. There, together with Nutreco, Martín-Tereso developed a new phytate-rich feed that reduces the risk of milk fever. The formula, CalFix, is now on sale in six countries.

SPECTACULAR DIP

Dutch cattle farmer Bert Mensink from Dedemsvaart was plagued by milk fever in the past. 'After calving the cows have much more difficulty starting up. The risks of infection are higher too, and the cows do not get pregnant as easily,' he says. Monitoring the recently calved cows for signs of milk fever was a lot of extra work as well. Mensink started using CalFix three years ago. 'It works perfectly. I saw a spectacular dip in the number of cows with milk fever,' he says. 'It went down from 50 percent to almost zero. The benefits of that far outweigh the slightly higher feed costs.' ■



milk fever



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