

System change reduced labour pressure and unlocked potential

Robots renew dairying passion

Installing robots has been a life changer for one Pembrokeshirebased dairy partnership and it's also served to boost milk yields and profitability. We spoke to a top ranking NMR herd to find out more about its automated system

text Rachael Porter

Clive Davies' Pembrokeshire-based pedigree Brown Swiss herd was second in NMR's 2014 annual production report rankings – an achievement that's all the more remarkable because he and his wife, Pam, were set to sell up and

retire three years ago. Instead, due to a TB 'lock down' that prevented them from selling their 120-cow herd, they decided to install two milking robots. "And the rest, as they say, is history," says Clive. "Upgrading to robotic milking has given us, the herd and the business a new lease of life."

The robots – two Fullwood Merlins – were installed in 2012 and Clive says that they are integral in helping to realise the production potential of his



pedigree Brown Swiss herd. "Pam and I had just turned 65 and we'd had enough, but now we can enjoy looking after the herd again, without the twice-daily grind of milking." The six hours spent milking each day through the unit's 20-year-old 9:18 herringbone parlour are now spent carrying out less physically strenuous day-to-day tasks. That said, there's been plenty to keep the pair busy, not least a change in management system to a fully-housed set up and taking four cuts of silage each year.

Clive began the switch from Holstein Friesian to Brown Swiss in 1989, predominantly because he wanted to improve milk quality. "I wanted to maximise milk constituents – butterfat and protein – due to quotas and because our milk buyer made cheese. So Brown Swiss seemed to fit the bill. We used Brown Swiss sires on the herd as well as buying in some heifers and cows, from Canada and Austria, and some embryos selected from top US cow families," he explains.

High yields

Today the herd comprises pure imported lines and it's been 25 years since black-and-white sires have been used on the herd. And not only has Clive realised the high fat and proteins he desired, but milk yields are also extremely good. Cows are currently averaging 38 litres a day, with 4.3% butterfat and 3.4% protein. Milk is sold to Dansco for mozzarella cheese production and in June 2015 the herd's rolling average yield stood at 9,583kg at 3.95% butterfat and 3.55% protein.

"And we're not done there. They should continue to rise and eventually – in a year or two – we'll be looking at an average yield of between 11,000 and 12,000kg," says Clive.

He has heifers coming into the herd that are producing impressive yields. One gave 10,500kg in her first 305-day lactation, followed by 13,500kg in her second, and she's currently giving 70kg a day, after calving in March. Clive says she's on target to produce close to 15,000kg in 305 days.

The breed also offers good type. Clive says that they have great feet and legs: "But it's their calving ease that really impresses me – the calves just seem to pop out and we have very few 'downer' cows due to milk fever – and this makes for a very smooth transition. We aim to have cows producing 45 litres within two weeks of calving and we're regularly



Robotic system: cows are milked an average of 2.8 times a day - some as often as four

achieving that – most are closer to 50 litres a day."

Some of this is down to breed, but Clive says that good dry cow management plays a role too – he feeds a carefully formulated ration of processed straw combined with a dry-cow blend and silage and minerals.

The mastitis rate for Brown Swiss is also typically low. In fact NMR data shows that the breed has the lowest average recorded cell count of all the breeds. Clive sees just two or three cases of mastitis per year in the herd, with an average cell count of around 180,000 cells/ml.

Surplus stock

With all these traits it's little wonder that the breed is in demand and Clive sells some surplus stock, including at least six bulls, each year. "We used to do quite a lot of showing, but we're cutting back on that now. That said, we are selling good quality heifers to other producers who are interested in showing. So our stock is still making an appearance in the show ring."

He says that Brown Swiss have a tremendous will to milk. "They have really taken to the robotic milk system. They are strong-willed animals and have good temperaments, but if you got in the way when they're heading for the robot, they'd flatten you! So robotic milking suits them."

His robots are programmed to milk individual cows no more than four times a day and the average number of milkings across the herd is 2.8 per day. "We have heifers that are producing 40 litres a day through the robot, so the system is definitely helping to push up yields."

And Clive is also feeding for more milk, working closely with his nutritionist Dorian Griffiths. Just 0.22kg of concentrate is fed per litre of milk produced. "I think that housing the cows all year round helps us to achieve that – it's easier to feed a consistent ration and keep control of the cows' diet," he says.

Up to 12kg/day of an 18% crude protein concentrate is fed through the robots and the herd is also fed a semi-mixed ration comprising lucerne, caustic wheat, a blend, molasses and grass silage. "We feed different cuts of silage at different times to help produce a consistent diet. Cows crave consistency – so that's exactly what we try to give them," says Clive.

He adds that they have held a few farm walks since installing the robots. "People come, predominantly, to look at them in action. But they tend to go home talking about our cows — they're always very impressed with the quality of our cattle and the yields that we're achieving. That's testament to the fact that we now have time to focus on the cows — and the details. We can sort out any little niggles before they become big problems.

"It's a pleasure looking after the herd again," says Clive. "We're excited about the future – there's a lot to look forward to. And I can also spend some time extolling the virtues of Brown Swiss cattle to UK producers. When you're as passionate about cows as I am, that's the best job in the world."