

Robots suit the cows, labour availability – and the weather

# Automated system optimises health and productivity

Ensuring that cows have access to the milking robots at all times is key to the success of the permanently housed herd at one West Yorkshire-based dairy unit. We visited them to find out more about milking, feeding, and overall cow management.

text **Emily Ball**

Setting up a greenfield site dairy unit was a chance to overhaul all aspects of the management system for producer Graham Holmes.

Cow health and welfare was at the heart of every decision made for the new unit and, five years on, he knows that his plans have resulted in a profitable system that works for both the farm's location and the cows.

Graham and his wife Janet farm in partnership with his parents, Max and Ruth, at Chelker House Farm in Addington, near Ilkley in West Yorkshire. The family now milk a 115-cow herd through two Fullwood robots, with an average yield of 10,000 litres, at 4.3% fat and 3.3% protein, per cow per year. It was a different story in 2010.

"Eight years ago we were milking 40 cows, producing an average yield of 7,500 litres per year, through a small herringbone parlour that was in dire

need of upgrading," explains Graham. "We got to the point where we knew that we needed to change to survive and this meant increasing the herd size and milk yields.

"I took the opportunity to really research what system would work for the set up here. I wanted a system that would put cow health and welfare first and labour issues meant that we needed to be able to run the herd by ourselves."

## Robotic system

The Holmes' milker, who was a key member of staff, had just left and Graham asked himself if he wanted to spend time training someone else up to milk, only to leave again. "I also believe that you can pay someone to do the job, but you can't pay them to love the job and be good at it.

"Finding that person who will always do an excellent job milking is difficult and



*Graham and Janet Holmes: "We spent time looking at what set up best suited our unit"*

I felt that a robotic set-up would give the cows a consistent, flawless milking routine. Robots have no Friday-evening milking, when they're trying to knock off early, or Sunday morning struggles, when they're hung over."

So he did his research and visited several robotic units and spoke at length with ForFarmers' Keith Colley about the building design and how to manage the nutrition of the cows in the new unit.

"Keith has a lot of experience with robotic herds, so we used his in-depth knowledge when planning our unit.

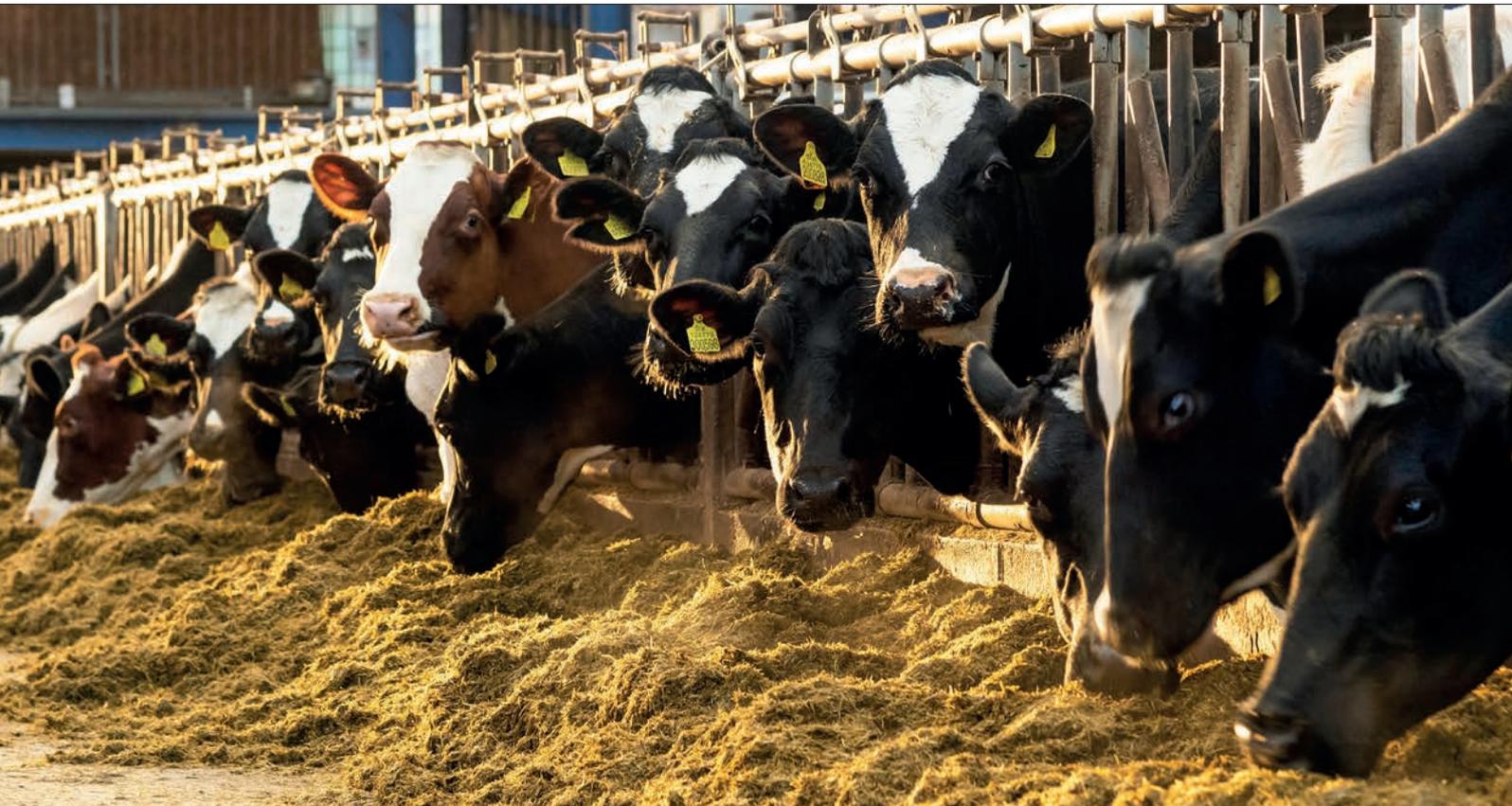
"He helped us think about what our real aims were for the progression of the herd, how and what we would be feeding the higher yielding cows in the system, and how cow flow would work around the building."

*Robotic system: cows are milked, on average, 3.3 times a day*



*Housing design: Graham spent time researching his options*





*TMR feeding: milkers are fed a diet that comprises brewers' grains and grass silage*

After purchasing 37 in-calf Dutch heifers, the Holmes moved the herd to the greenfield site with two robots in October 2013.

"The building can house 200 cows, but we've always aimed to provide as much space as possible and the best facilities for the cows. We don't want cows to be cramped or dirty.

"There are seven water troughs and we've put rubber matting down in front of the feed barrier to help increase intakes and reduce lameness.

"We don't want the robots to be working at or even above full capacity. We want the cows to be encouraged to visit them whenever they want," he adds.

*Feeding time: TMR is fed out to cows*



During the past five years the cows have visited the robots no fewer than 3.3 times a day. Higher yielding cows can visit five times or more each day.

Discussions with Keith about improving the profitability of each individual cow mean that Graham is concentrating on providing the right nutrition to drive yields and ensuring that the cows can milk.

### **All-year-round housing**

Prior to the move to the new unit, cows were fed grass silage in ring feeders, cake in the parlour, and grazed for four months a year – depending on the weather. Now cows are housed all year round and are fed down a central passageway, which has 140 locking yokes (70 on each side). This gives them plenty of access to the feed. Silage is fed out once a day and pushed up three times a day.

The cows are fed 50kg of grass silage and 10kg of brewers' grains per head per day. They are then fed concentrate, to yield, through the robots.

All cows are fed Ultima Safe 20, but cows also receive Optima Lintec 18 during the first part of their lactation to help increase fertility. "The linseed has a positive effect on fertility, just at a time when the cows are at peak lactation, and we also see a milk-yield benefit," says Keith.

"Our high yielding cows, which are

those giving 60 litres or more, can get as much as 14kg of cake a day. But that's spread across five visits to the robot.

"It means we can avoid the risk of acidosis by reducing the amount of concentrate the rumen has to deal with at one time. It's all about giving them access to the parlour whenever they want it," says Graham.

"We're aiming to be consistent with the diet, which is why we feed both types of cake initially," he continues.

"Keeping the rumen happy and not subjecting it to too much change is important."

### **Contractor business**

Only young stock are grazed, so the Holmes now cut 85% of their grassland for silage.

Graham also has a small contractor business and, not having to milk, he has the flexibility to cut at the best time to optimise forage quality. As a result, silage quality continues to improve year on year.

"We can see some tough weather here, but we know that our cows are well looked after in their building. This year we had temperatures ranging between -17°C and +37°C and the building and cows performed well throughout.

"We know we have a system that suits the cows, our labour availability and the tough Yorkshire weather." |