

Milk speed: maximising robot output

Switching to robots can bring benefits in reduced labour and improved herd health. For one Holstein herd, it has brought these benefits and more. Gareth Jones reports.

Robert and Bryony Symms farm 170ha at Batsons Farm near Sherborne in Dorset with their son Jake. Three years ago, they decided to install four Lely A5 robots to milk their herd of 250 Holsteins to reduce labour and improve health and production.

“Our parlour was still in good working order,” explains Jake. “But we were spending too much time putting cups on cows, rather than doing more important management tasks, so robots were just the next logical step, to improve herd health and production.”

“We were determined to make it work with the new system.”

The family looked at various robot brands but felt they wanted local backup support, so they settled on Lely in Yeovil. The four robots were retrofitted at the end of their cubicle housing to milk two groups of 110 cows each, on a free access system.

With a housed herd, the family knew the importance of regular footbathing, but did not want to interrupt cow flow by placing footbaths at the exit of each robot.

So, the team at the Lely Centre came up with a design which allowed access to one footbath, which was positioned away from the robot



Holsteins are milked through four Lely A5 robots on a free access system at Batsons Farm

exits. “With this layout, we can select how often we want to footbath,” says Jake. “Currently, we do it three times a week, but it doesn’t affect cow flow, because the baths are far enough away from the robots.”

The cows have always been bedded on sand, so Robert and Jake were keen to continue with this when the robots were fitted. “We know it’s the best bedding material for our cows,” explains Jake.

Wear and tear

“So, we were determined to make it work with the new system, even though we knew it would cause more wear and tear on the robots.” As a result, they fitted chains instead of cords to the robot’s automatic cluster removers (ACRs), and they scrape the slurry out twice a day with a tractor, into a lagoon.

When it comes to nutrition, Jake uses Kite consulting for all of his feeding advice, and the herd is fed for maintenance plus 28 litres, with a total mixed ration (TMR) of maize, grass silage and blend, before being topped up in the robots up to a maximum of 10kg/cow per day.

The yield increased with the introduction of the robots due to the additional milkings, and after a year the herd average had increased from 32kg/cow per day to 43kg/cow and around 2,300kg/robot per day. However, this brought another challenge in terms of machine capacity and a lack of free time - when the robots are not milking cows - with a target of 55 cows on each machine.

“The problem was that we were running at under 10% free time, and so we were fetching more cows,” says Jake. “And when the machines were being serviced, it took a long time to catch up.”

The Lely team suggested changing the silicone liners to rubber as this would increase the milking speed and reduce box time. This brought the average milking speed up to 3.1kg/minute, but it did mean that the liners had to be changed every fortnight instead of every eight weeks.

New silicone liner

However, in April 2025, Lely launched a new silicone liner, designed for high-yielding cows, so Jake opted to try them. As a result, the milk speed increased to 3.6kg/minute, which gave the robots 11% free time with the same level of production, and the liners only had to be changed after 10,000 milkings.

“This is a good place to be now,” says Jake. “There is a nice buffer of free time, which means we are collecting very few cows, and if we should get a breakdown, we can catch up quite easily. The next challenge is to hit 45kg/cow per day consistently.”

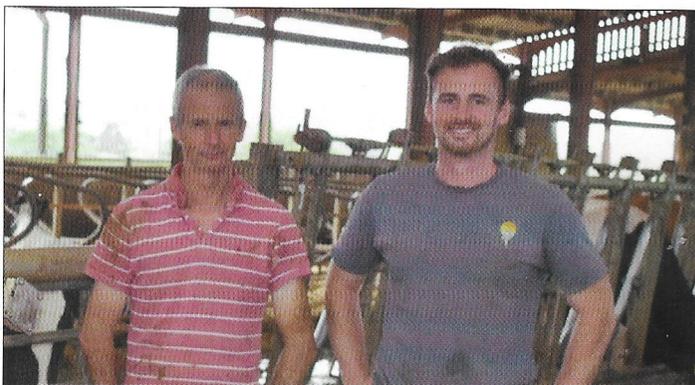
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Robert (L) and Jake Symms (R) invested in robotics to improve the herd