

Is automatic milking suitable for 'grazed' herds?

Can robotic systems fit all?

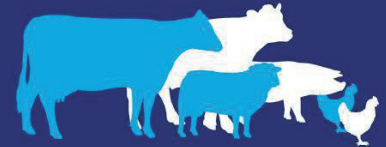
The award-winning live robotic milking and feeding demonstration is returning to the Livestock Event and one of the most common questions asked by visitors to the exhibit in 2014 was: can I still graze my herd? The answer is 'yes'.

text **Rachael Porter**

Freeing up time to improve other areas of herd management and reducing labour costs are the obvious benefits of installing an automated milking system. But some producers are put off because they believe that installing robots inevitably means that cows have to be housed all year round. But that's simply not true, according to Lely's Bas van Santen. "Grazing and robots can, and do,

go together. In fact 95% of the robotic installations in Ireland are on spring-calving, grazing-based units."

In 2014 more than 50% of visitors to the two-day show came to view the demonstration and robotic systems now account for more than a third of new parlour installations. The market share is set to increase, as business struggle to find time and labour to manage and milk increasingly larger herds.



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That said some producers still believe that an automatic milking system (AMS) and grazing just don't go together. "It was a common misconception that came across at the 2014 event, when we spoke to producers who visited the exhibit. Many said that they'd dismissed the idea of robotic milking because they didn't want to house their cows all year round," says Mr van Santen.

He says that key to successful grazing with an AMS is good cow tracks. "Providing you're not asking the cow to walk more than 1,500 metres to grazing and back and you have hoof-friendly walk ways, she will come to the robot at least twice a day to be milked – usually more frequently."

Mr van Santen refers to one unit where cows walk 1.8km between grazing and





Charlie Hughes

the automatic milking set up. “It does require some additional investment in tracks but they should be there anyway, even with a conventional parlour, to allow the cows to travel to and from grazing easily and with minimal stress on their feet.

“And ideally the robotic milking system should be located at the centre of the unit, with access to grazing areas all around it. But even when this is not possible, the system works well if it’s designed to suit the farm’s shape and topography.”

Grazing success

Producer Charlie Hughes, based at South View Farm near Pulborough in Sussex, uses two Lely A4 robots to milk his 90-cow herd. The cows are strip grazed during the summer and are currently averaging around 10,000kg of milk – a yield that’s up from 8,500kg before the switch to an automated milking system. “The cows visit the robots 3.6 times a day, on average. That’s both during the summer, when they’re outside, and during the winter,” he says.

He installed the robots in 2013 and admits that he was concerned about whether they’d suit his conventional summer-grazing system – his target is 3,000 litres from forage. “So I visited some units where grazing cows were being milked successfully with robots. That was enough to convince me to give it a go and I haven’t looked back since.”

Installing the robots did require some cow house alterations and he also invested in a new cow track that leads from the end of the cowshed, through a Grazeway ‘grazing gate’, and down to the unit’s strip grazed pasture.

“It does require a little extra attention at the beginning of the grazing season, while the cows adjust to the new routine, but they soon get the hang of it,” he explains.

Fresh grazing is offered twice a day. At 7.00 am all the cows are brought inside



Popular exhibit: More than half of all visitors in 2014 came to view the Lely demonstration

and the fencing is moved. The ‘gate’ is then opened to cows, once they’ve been through the robot. “It sounds complicated, but the routing system is easy to manage – the robot does it for us. It’s all pre programmed.”

In the evening, only cows that are pregnant or are in mid-to-late lactation can go back out to grazing over night. Early lactation cows and heifers remain inside and are fed a buffer ration. “They do try their luck, but the routing system is excellent. They go through the robot and it diverts them back into the cow house and not through the grazing gate.”

Charlie says that he works closely with his nutritionist and Lely’s Jon Eldridge for guidance on feeding and managing the herd through the system.

He adds that the cost savings – and not just in time and labour – have been significant. “The herd can be run as one group, I’m not stuck in the parlour for upwards of six hours a day, and everything is computerised. And I still get to maximise milk yield from grazed grass.”

Continuing research

Robots provide 30 extra working hours per week and now, Charlie says, he has also has time for life outside the farm: “Not only does this system free up time to focus on other aspects of herd management, such as health and fertility and the ice-cream making and milk bottling side of my business, but I also have time to take my daughter for her weekly swimming lesson. I really do feel as if I have the best of all worlds,” he adds.

Research into using robots with grazing systems is on going in the Netherlands. “We’re constantly looking at fine-tuning this aspect of robotic milking and designing protocols on how to best set up these systems on grazing units,” says Bas van Santen.

“We’re looking at, among other things, at the optimum time to change the gates over to allow access to fresh pasture, for example.”

More than 50% of robots in the Netherlands are on unit’s that manage their herd on a grazing-based system. “It works because many milking set ups are located pretty centrally, to allow access to the grazing around the robots. Anwd, again, good tracks are integral to their success,” explains Mr van Santen.

The company has also developed a tool to calculate the payback period for a robotic milking system. This was driven by the number of producers who came to the stand in 2014 and asked how long it would take to recoup their investment. “It’s a tough question to answer. Every unit is different and it’s about more than just the extra yield that robotic milking can produce – the typical increase is around 17% on a 12-month rolling average.”

Reduced labour and vet costs, improved udder health and milk quality, and greater feed efficiency are just some of the other benefits that have to be costed out and factored into the calculation.

“So if producers want to know more about the economic benefits and return on investment of automated milking, they should come and talk it through with us at the event,” adds Mr van Santen. |