

As batch milking with robots is starting to gain traction, Gareth Jones, of Robotic Milking Systems, looks at whether it is a good fit for your farm. **Farmers Guardian** reports.

Robotic batch milking: An alternative for larger herds?

Most manufacturers are now offering batch milking, which – particularly for large dairy herds – can make sense both from an economic and herd management point of view. But how does it work?

Gareth Jones, founder of Robotic Milking Systems, says batch milking with robots works on the same principle as a conventional milking system – bringing groups of cows to a collecting yard to be milked. However, with batch milking they

are milked automatically by a bank of robots.

Ideally, Mr Jones says the groups of cows that are brought to the machines will be milked in about an hour, to reduce standing time.

He says: “If we take an example of a 660-cow herd, this would typically be split into seven groups of 95 cows milked through 12 robots.

“Each milking would take up to seven hours, leaving one hour of downtime between milkings for washing and maintenance. This way, the herd can be milked three

times in 24 hours, with the same capacity per box as a voluntary milking system.”

Once milked, cows are automatically returned to their housing area with a series of selection gates. Mr Jones says this means that the cows at the end of one group and the start of the following group can mix together.

Potential savings

While some think there is little to be gained financially with batch milking, due to requiring the same number of machines as a voluntary

system, Mr Jones says there are potential savings to be made.

He says that as the manufacturers can centralise some of the equipment, such as vacuum pumps, as well as milk and wash lines, the cost per unit reduces.

He adds: “If we take our herd example above, on a voluntary system this would typically run with six micro herds of 110 cows each, with a combination of early-, mid- and late-lactation cows in each group, so that every robot is running at the same capacity. If you are constructing a new build,



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PICTURE: GARETH JONES



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this can be planned for, but if you are trying to retrofit a layout of this type into an existing building, it can become both complicated and costly.”

With batch milking, Mr Jones says a new facility for the robotic milking operation can be built and the existing cow housing can remain in situ, with cows grouped accordingly.

Handling, separation and foot-bathing can also be centralised, rather than replicating it in every micro herd.

Feeding

Batch milking with robots can also allow for groups to be managed in the same way as they would if milking through a conventional parlour.

Therefore, feed levels on the feed fence can be matched to the groups’ needs, if a mixed ration is being fed.

Additionally, concentrates have been proven not to be the motivation for cows entering robots in a batch milking system. Once in the collecting yard, the cows’ desire to pass through the machines is simply to get milked and return to the feed fence. Therefore, feed levels can be reduced significantly.

Mr Jones says: “Batch milking can give you more flexibility during the working day to carry out herd management tasks, because the cows are leaving the housing area. So, during this time it is possible to clean and bed down the cubicles or to scrape the passageways.”

Labour

Additionally, he says some groups can be brought to the robots more often than others, which can also be timed to suit staffing levels.

He adds: “Taking our example above of 660 cows in seven groups, typically this would have one high-attention group for fresh and hospital cows which require extra labour.

“So, these can just be milked twice during the working day while the other six groups can be milked three times in 24 hours.”

One of the main attractions of robotic milking is reduced and flexible labour requirements, which applies to both voluntary and batch milking systems.

However, Mr Jones says that because batch milking relies on people to bring cows to the milking area, it



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does require a 24-hour operation, which will not suit everyone.

However, for large herds where farmers are already considering milking the herd three times a day conventionally, they will likely also require labour around the clock.

Breakdowns

Mr Jones says: “Unfortunately, breakdowns do happen from time to time, regardless of the manufacturer, but with batch milking the situation is not so urgent

because the robot can simply be shut down. And although milking will take a little longer, the situation is not critical.”

He says this is not the case with voluntary milking, where robots are often running at full capacity in small groups.

In summary, while batch milking is not for everyone, it does offer an alternative way of milking large herds robotically, while offering the traditional management systems associated with conventional milking.

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