

HOARD'S DAIRYMAN

MILK QUALITY

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Online worker training has its hurdles

ALTHOUGH there is no substitute for in-person training for your milking staff, this one-on-one instruction can be hard to achieve in the current environment. For many farms, all milkers cannot be present at the same time and often there is a need for a translator to be present, which makes it even more difficult to schedule training on a routine basis.

Due to the widespread use of cellphones by most milkers, we set out to determine if there was value in using an online approach to educate milkers about how to perform a good milking routine. Our project was funded by a grant from the Northern New York Agriculture Development Program and involved 10 northern New York farms.

The first part of the initiative involved doing a baseline assessment of the 10 cooperating farms to determine the top opportunity areas to reduce the risk of mastitis and improve milk quality. On every one of the farms, milker performance was in the top three opportunity areas. This reinforced the need for additional training on these farms. It also helped owners realize how important ongoing training can be in moving them closer to their milk quality goals.

Furthermore, the baseline assessments showed the need for improvement on all farms in the critical area of teat end cleanliness by milking staff. None of the 10 operators reached the Quality Milk Production Services (QMPS) goal of having greater than 80% of the teat ends clean postprep. Since we recorded this data by individual milker, this became one of our assessment tools both pre- and posttraining.

Seven critical areas

The online training that we developed has seven modules that correspond to the seven critical procedures in a milking routine. Our design of the training was that each module would only take two to three minutes to complete and that with pictures, videos, and diagrams it would be very interactive for the user. The goal of each module was to explain the "why" of each procedure in the milking routine. The thought process was that if employees understood why they were expected to complete each step, they would be more likely to do it well. For example, in the area of forestripping, it was explained that if they stimulated the udder well, the cow would let-down better and therefore milkout faster, which would help them stay on time.

On each farm, we performed an initial training session on how to log into and use the seven modules. We then let the milkers complete the training either on their phones or a computer over the next two to three weeks. After this period, we reassessed the farm by timing the milking routine, scoring teat end cleanliness, and scoring pre- and postdip coverage.

Disappointing uptake

The percentage of milkers who fully completed the modules was disappointing, but we did have enough complete the most critical parts of the modules so that we

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could successfully assess some of our outcomes.

In the area of teat end cleanliness, 100% of the milkers that we evaluated improved after participating in the online training. This was a very positive sign, and for some individual milkers, it was very obvious that they now understood both why clean teat ends are important and how to do it.

For other milkers, they had improved some but their technique was still lacking. Perhaps for these milkers, an additional hands-on demonstration or more clear videos or graphics were needed to help them develop the physical technique needed. On some farms, there were also other factors in the mix such as too much parlor pressure that prevented milkers from taking enough time to effectively clean the teat ends even though they knew the importance of the measure.

In our analysis of why there was a lower completion rate, we came up with five areas that were potential influencers on the situation:

1. Employees were not comfortable using the internet as an education learning tool.

2. There was too much text for the different levels of literacy that are present on farms.

3. Internet and wireless access was not optimal or present.

4. There were unclear expectations from farm managers about the need to complete the module and when to do it.

5. The module was not engaging enough to keep their interest.

Stepping up our game

As we continue to work on phase two of this project, we are addressing most of these limitations in order to determine if the completion rate can be improved. For example, to overcome the literacy issue, we are including a choice for all text to be read aloud. For the issues with access to the internet and expectations from farm management, we are working on having a dedicated time on the farm when employees would complete the module and be given a temporary password to the farm's wireless access.

To address the engagement issue, we have included many more pictures, videos, and diagrams and shortened the text to the most critical points. We have also included some fun multiple choice questions to keep the user involved.

In summary, our project clearly showed a need for ongoing milker training and that an online platform can work on some levels to help fill this gap. We also found out, though, that there can be significant issues with keeping employees engaged enough to complete the online training. If you are exploring this type of training, we hope that you can learn from some of the challenges that we faced and make your instruction work for you and your milkers.

Virkler is a veterinarian with Quality Milk Production Services. Ospina, Gallardo, and Heuwierser are veterinarians who assisted in the project.

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