Improving your herds udder health with dynamic testing

Between July 2020 to December 2021, four dairy farmers in Carmarthenshire with an average herd size of 260 cows have been working with vet Dr Sotirios Karvountzis of Mendip Vets to see how carrying out dynamic testing can improve their herds udder health.

Dynamic testing was carried out by vet Dr Karvountzis every two months where he was looking for issues that can damage the cow before and during milking, which any other type of static milking parlour test would not identify. It is more likely to show hidden problems that exist when the cow/udder is under pressure from milking. Dynamic testing is currently only used by around 5% of dairy farms.

Examples of what is monitored through dynamic testing:
- Udder preparation for good milk flow
- Biphasic milk flow
- Overmilking
- Flow away from the cow
- Liner fit
- Liner slip
- Milk plant pulsation

The following can also be examined at the same time as dynamic testing:
- Bulk tank somatic cell counts
- Bulk tank bactoscan
- Clinical mastitis incidence
- Mastitis antibiotic treatment use
- Teat scoring

Overmilking indicated as one of the biggest factors affecting dairy herd udder health
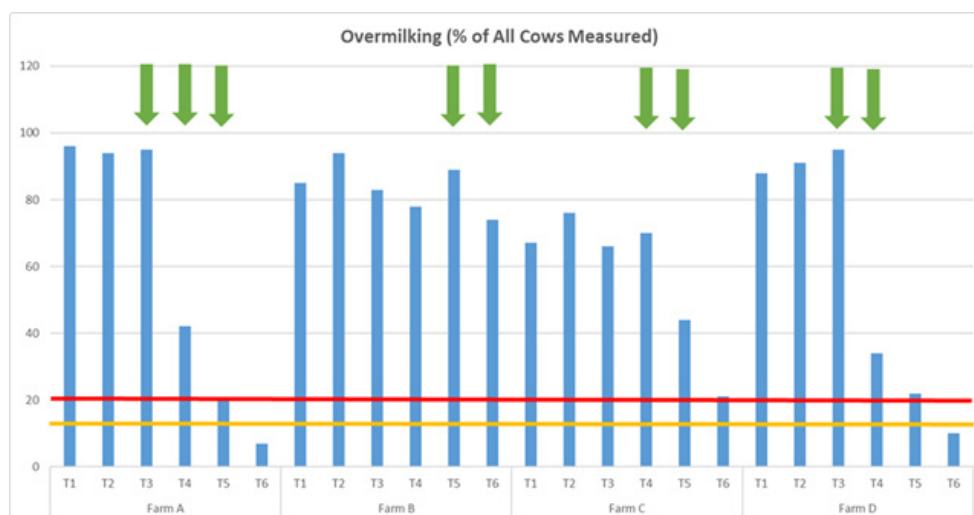
Overmilking is one of the primary mechanisms of damage to the teat end, which in turn is one of the many defence barriers of the udder to mammary infection. This graph shows that on all four farms over 60% of the cows were being overmilked (T1). The amber line at 15% represents the industry standard of a satisfactory level of overmilking and the red line at 20% shows where action to improve overmilking is needed. The green arrows show when recommendations from the dynamic testing were acted upon.

Overmilking occurred as the Automatic Cluster Removal (ACR) was set to remove the milk units at too low a milk flow (e.g. 200ml / min), or the delay in pulling the milk units off the udder and cutting the vacuum off the milk liners is set too high (e.g. over 10 sec), meaning the unit is milking at full vacuum with low or no milk flow causing harm to the teats and udder.

After overmilking was identified changes were able to be made on farm to rectify this, and overmilking reduced on average across all four farms by **21%**.
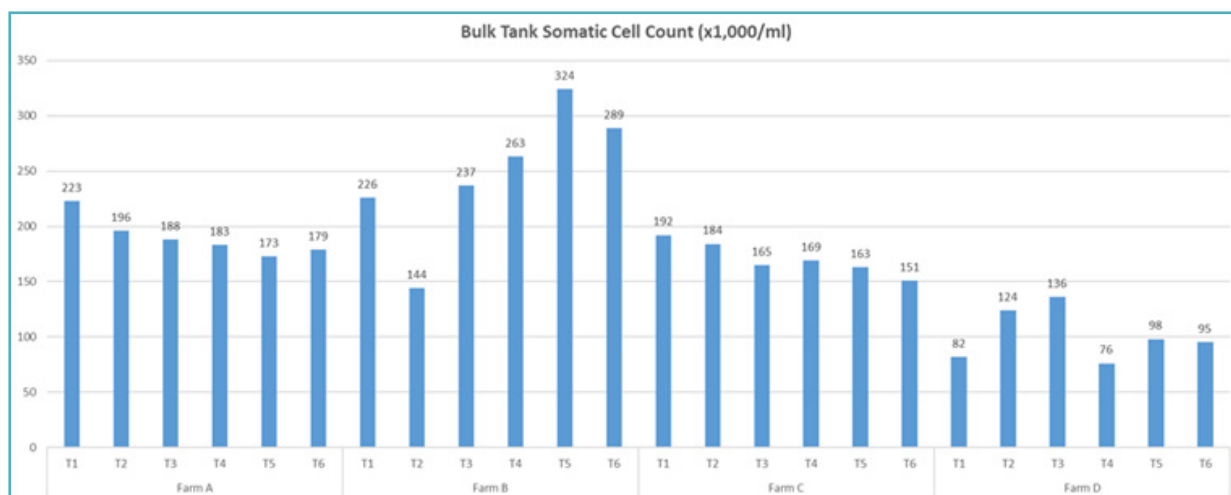
The average bulk tank somatic cell counts (BTSCC) reduced by **3.86 x1,000/ml** for every intervention that was applied following dynamic testing. Although investigating every area that contributes to improvements in bulk tank somatic cell counts was outside the remit of the project, the strong evidence found here are consistent with this study's hypothesis that improvements in BTSCC will stem from improving teat score results.

For further information on this EIP project, please visit the Farming Connect website:
gov.wales/farmingconnect