

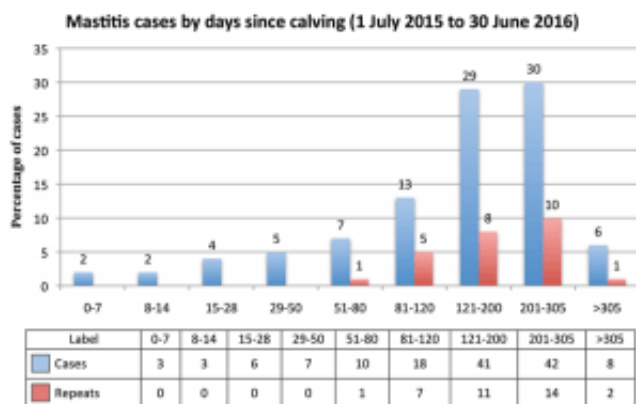
Importance of cattle mastitis management and treatment

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The country has been plunged into uncertainty following the Brexit vote. Many farmers will be wondering what will happen to the price of milk and what other effects leaving the EU will have on business.



Mastitis records that quantify levels of mastitis and help pinpoint problem areas.

One might think, therefore, the issues associated with antimicrobial use and resistance will take a back-burner. This is not the case because, in every other country, this remains high on the list of priorities and for the UK to trade globally, we are likely to have to follow rules set by others to be able to export produce.

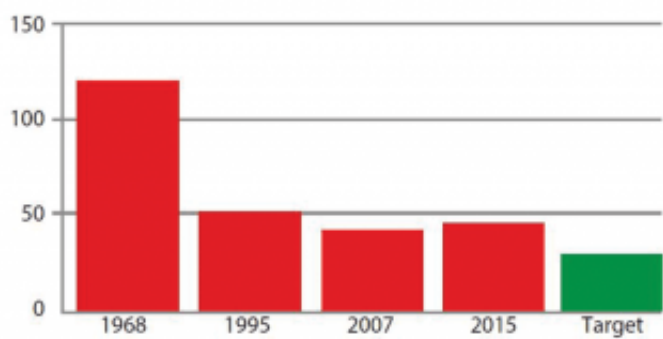
It was very sobering to be told by a local dairy farmer his milk price is less than it was 21 years ago when his youngest daughter was born. There is no long-term light at the end of the tunnel for an increase in milk price, so one way farmers can improve profitability is by improving performance and reducing disease.

Clinical mastitis is the most common disease in dairy cows. Levels in the UK are higher than in many other countries. The general consensus is the UK average mastitis incidence is in the order of 40 to 50 cases per hundred cows per year, where one case is one quarter infected once. The target is 30 and many good farmers are achieving levels of less than 20. A great opportunity to reduce mastitis clearly exists.

Most farmers underestimate the true cost of any disease. Some will tell you a case of clinical mastitis costs less than £100, as all they are taking into account is the cost of medicines and the discarded milk during treatment. The true costs are far higher. Most people estimate one case of mastitis adds one hour to the workload. This is important, as labour is in short supply on every dairy farm.

Clinical mastitis causes significant damage to udder tissue. Just imagine any injury we get and the impacts of inflammation that can take a long time to reduce and even longer for tissue to return to normal. Clinical mastitis is a massive assault on the mammary gland and the impacts of inflammation are significant. You can end up with a quarter drying up following a severe case of mastitis.

Losses to herds



Average UK mastitis rate (cases per 100 cows/year). The target is 30 cases per 100 cows/year or less. The average is around 45 to 50.

On average, a 5% reduction in total lactation yield follows a case of mastitis. So, a cow averaging 8,000 litres with a case of mastitis is likely to lose 400 litres of production. The difficulty is no one sees lost production. Lost milk production accounts for more than 50% of the total cost of clinical mastitis.

It is a good idea to quantify the total losses from mastitis for each herd, work out what can be saved and if that is converted into pence per litre, it is more easily understood by the farmer.

Take a 100-cow herd with 50 cases of mastitis. The target is 30 and the farmer tells you each case costs him £200. The saving is 20 cases or £4,000. His cows are giving 8,000 litres, so if he can reduce this it's equivalent to a milk price rise of 0.5 pence per litre – half of his veterinary bill. The majority of herds now have low cell counts, but some still have issues and may be reluctant to seek or take advice. Others just want a magic wand to take away all the problems.

In life we make lots of assumptions. As vets, we often assume farmers understand the simple things we all take for granted. The author has found many such assumptions are false – some

people do not understand some of the basics and we have to keep repeating these.

The author spoke to a farmer called Paul who had gone to see a financial advisor, Mike. Paul never really believed the likes of Mike would be beneficial, but he was prepared to give it a go as his wife thought it a good idea. Before the visit, Paul had to collect and send a great deal of financial data for Mike to review before the face-to-face meeting.

At the meeting, Mike wanted to know about Paul's lifestyle, his future plans, his family circumstances and much more. The meeting lasted three hours and Paul found it invaluable. It was a complete review of all the things he had never thought about in detail. Paul thought he was being very clever in many ways, but Mike pointed out attractive alternatives.

At the end of the meeting, Paul had a much better understanding of what he needed to do for the future and was going to work with Mike to achieve his goals. Despite the fact he had to pay a reasonably hefty fee, Paul felt he got excellent value for money.

We can do exactly the same for our dairy farmers. If we take mastitis, we can sit down and analyse the herd's mastitis situation for both clinical and subclinical mastitis. We can use records, sales of all intramammary tubes (milking, dry cow and teat seal), bacteriology results and any other information to put the jigsaw together. We then quantify the level of disease and work out if the problems are contagious or environmental, clinical or subclinical, lactation period or dry period infections. The disease is broken down into individual sections that become far more manageable and easier to understand.

We can then sit down with the farmer and have a discussion. What are his future plans? If he is going to sell up he is not going to be motivated to make many changes. What are the barriers in preventing him achieving his goals? How can we help? These types of conversations can be really helpful.

Some vets are reactive rather than proactive. Often we make an assumption a farmer won't spend money on X, Y or Z. However, we should offer choice to take up an assessment of his mastitis or an overall herd management.

Treatment discussion



The author (right) with two farmers, who value regular meetings about mastitis to reduce disease further.

A discussion around mastitis treatment can be very revealing. Treatment of mastitis often evolves and changes over time, according to the herdsman's preference. Some farmers are treating cows that do not have clinical mastitis.

Finding out about response to treatment, recurrence rates and bacteriology results to establish the cause of clinical mastitis is very useful. Repeat cases of mastitis are particularly frustrating and common. Is this due to the bacteria causing the clinical mastitis or is this a treatment issue? How good is treatment success and helping to highlight potential issues?

UK farmers are particularly poor at collecting samples as they see little benefit from the results. This is an opportunity for vets to continuously engage in mastitis control and involvement in this area. However, we have to create value from the samples collected and use this information.

Of course, treatment also relates to the dry period. It is interesting the majority of farmers use blanket antibiotic dry cow therapy while 60% of cows get dried off with an internal teat sealant. The majority of cows are free from infection at dry off and so no benefit exists from using antibiotics in these cows. However, we know the risk of dry period infections is high and all cows will benefit from use of an internal teat sealant at dry off. This is a really important conversation to have.

If a farmer starts to use an internal teat sealant, he or she can expect to see a 25% to 30% reduction in clinical mastitis. If a farmer only uses antibiotic dry cow therapy in infected cows, there will be an additional saving in antibiotic use, as well as saved costs. Take a 200-cow dairy herd where you reduce antibiotic dry cow therapy in 80 cows at a cost of £6 per cow, which gives a total saving of £480. This buys enough time to carry out a good mastitis visit, which will pay significant dividends. Substitution can be mutually beneficial for everyone.

UK dairy farmers have one of the lowest cell counts in Europe. However, small reductions in levels of clinical mastitis have occurred in the past 10 years and great opportunities to do so exist. Vets have a great opportunity and it is essential to start the conversation about mastitis and persuade farmers a benefit to involvement exists. Of course, some farmers will have no interest, but others will be keen to take you up on your offer and these are likely to be the clients who will remain in business.

Remember, you do not need to be a vet to offer advice in controlling mastitis. Lots of agricultural advisors have been on the DairyCo Mastitis Plan and others advise farmers on mastitis control. If we, as vets, do not take these opportunities, many others will.