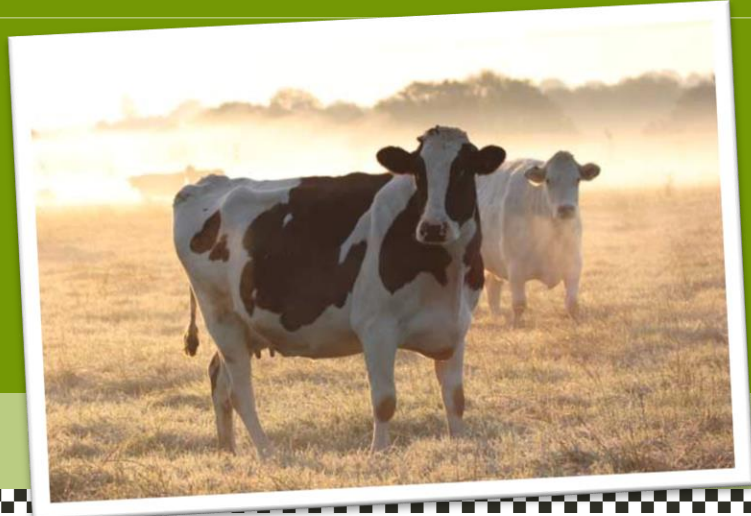


nantwich farm vets



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Cheshire
CW5 5SF

24hr phone line: 01270 610349



February 2019

Dates for your diary

5th March
11am-1pm
BVD Stamp It Out Meeting (details below)

4th -7th Mar
Dairyland Foot Trimming Course
Contact Steve or the office to book a place.

12th -14th Mar
AI Course
Contact Michael or the office to book a place.

BVD Stamp It Out update



At the end of 2018 we ran five 'sign up' cluster meetings. 34 out of the first 100 farms signed up to the scheme have already completed check testing to ascertain their BVD status. Anyone who hasn't yet completed the testing please speak to your routine vet or Laura Tomlinson (one of our vet techs) to have this carried out. Once the testing is done every farmer will have a second free vet visit to discuss the results. Once each of the clusters is complete we will send out invites to a second cluster follow up meeting at the practice. I would like to get as many farms through the testing as I can before the follow up meetings so that I have lots of material to talk to you about!

We still have funding to sign up more farms and anyone that has breeding cattle (beef or dairy) is eligible. There will be another opportunity to sign up to the scheme at 11am on Tuesday 5th March. If you would like to book a place please ring Laura Donovan 07800 647608. I've had lots of positive feedback on the free hot lunch!

Huskvac reminder



Please remember for full protection your stock need two doses 4 weeks apart and then wait 2 weeks before turning out. Try to avoid the use of long-acting wormers which will prevent the natural boosting of immunity by lungworm on pasture and may mean problems with lungworm in autumn or subsequent grazing seasons. If you're hoping to get youngstock out as early as possible this year to preserve forage then you'll need to be ordering your doses soon.



With warm days, cold nights and damp muggy weather, the past few weeks have been a nightmare for calves and pneumonia outbreaks have been common. There are some key things to remember that can help decrease incidence and reduce the severity.

Colostrum

We sometimes get asked, "This antibiotic doesn't seem to be working, should we try something else?" We administer antibiotics to calves with pneumonia to prevent secondary bacterial infection but it's important to remember that the majority of pneumonia is caused by viruses. So just like the common cold (which doctors won't give you antibiotics for), overcoming the disease requires a good, healthy immune system. You hear it from us (and read it in our newsletters) time and time again but colostrum management is critical and absolutely key.

If colostrum management isn't as good as it can be, we can only expect pneumonia

We can test calves and colostrum, pasteurise and do other things which are all worthwhile, but I'm not a youngstock expert and like to keep it simple for everyone's benefit. Basically, feed 10% of bodyweight (3-4 litres) as soon as possible after birth (ideally within one hour). If the cow can't be milked then you should have a store of frozen colostrum to thaw out. Bagging is fine- contrary to what is often told, there is no difference in antibody uptake between bagging and sucking from a teat and if a calf is left to suck its dam, 8 times out of 10 it won't suck enough. I also don't buy the excuse 'calves won't be able to take 3-4 litres.' There are plenty of farms

Cough...cough...cough

Sick of hearing that sound in your youngstock? **Michael Wilkinson** shares some quick thoughts on calf pneumonia.

equating to thousands of calves where every calf gets bagged with 3-4 litres with no issues. It should be good quality (thick) and spotlessly clean. If it's dirty or left out then the antibodies are constantly being used up killing bacteria before it even gets to the calf so there is less left for the calf to absorb. If colostrum management isn't as good as it can be, we can only expect pneumonia.

Vaccination

If colostrum management is spot on then we can look at other things. Like for many viral diseases, vaccination definitely helps. Our vet techs are busy vaccinating calves for many clients, and on their routine visits the techs often see a rapid improvement in calf health. Though it won't completely prevent pneumonia, vaccination reduces the severity of disease and almost totally eliminates calf losses.



Our vet techs provide a great, hassle free vaccination service

I will be the first to admit the pneumonia vaccines are expensive but so are repeated treatments of Draxxin, Resflor, Zeleris etc. comparatively, not to mention lost time, growth and heifers with more than one case of pneumonia giving 1000 litres less in their first lactation. Nasal swabs should be taken to determine what viruses we are dealing with and then select the appropriate vaccine and time to administer. If it helps, the vet techs

are available. They bring out the exact number of doses needed to prevent half used bottles, the only charge is the number of doses used and they will book in the second dose and come out to make sure it's given on time also.

Environment

To finish off there are some other things that can help. Fresh air is critical, and if sheds are damp (even from washing buckets) and smell of urine and ammonia you can only expect problems. **DON'T** close up sheds in order to make them warmer. But at the same time, calves do need to be warm. Milk fed should be increased by 10% when temperatures are below 10°C and plenty of deep, dry bedding definitely makes a huge difference. Straw should cover the hocks when calves are lying and if possible, I think it's a great idea to bed fresh in the afternoon so it's warmer for calves at night.

Calf coats can be great especially if sheds are cold or there are slight draughts created when improving ventilation. Just be careful as they can hide the early signs of pneumonia. Ad lib concentrates until post weaning and fresh water available at all times will all improve the health of your calves and allow their immune system to fight the viruses as much as possible.

Roll on warmer, drier weather!



Calf shed bedded in deep straw (covering hocks) and open sides for ventilation



And an-udder thing...

Joe Mitchell takes a look at a methodical approach to tackling mastitis in a herd and a new tool that can help.

Mastitis continues to be one of the most common and costly diseases in UK dairy cattle, and we often get asked for advice for dealing with a perceived mastitis problem. In this article we will look at the main causes, how we can investigate a problem and how we use that information to target our interventions at a herd level.

In cases of clinical mastitis the udder may be swollen, hard, hot, painful or reddened and the milk may have clots or flakes in it or may be watery or discoloured. In subclinical mastitis, often the only sign is a raised somatic cell count (SCC).

Causes

Mastitis in the UK is predominately caused by bacteria. These bacteria can be broadly split into contagious or environmental in their origin (see Table 1). This distinction allows us to focus control measures in a more specific farm management area depending on whether cow-to-cow spread or environmental contamination is the main cause of disease. Identifying the bacteria involved (through sampling pre-treatment or high somatic cell count cows) is important though

| Environmental Pathogens | Contagious Pathogens |
|-------------------------------|-----------------------------------|
| <i>Streptococcus uberis</i> * | <i>Staphylococcus aureus</i> * |
| <i>E. Coli</i> * | <i>Streptococcus agalactiae</i> |
| <i>Klebsiella pneumonia</i> | <i>Streptococcus dysgalactiae</i> |
| <i>Pseudomonas aeruginosa</i> | <i>Corynebacterium bovis</i> |
| <i>Bacillus spp.</i> | <i>Mycoplasma</i> |
| Fungi, yeasts and moulds | Other <i>Staphylococcus spp.</i> |

Table 1: UK mastitis pathogens
(* indicates the most common)

insufficient by itself as there are some bacteria, for example *Strep uberis*, that although categorised as an environmental pathogen, can become 'cow adapted' and spread contagiously. The other trap we have to be careful not to fall into is thinking that simply culturing a particular bug means it is the main cause of the problem.

...simply culturing a particular bug doesn't mean it is the main cause of the problem...

How to investigate an issue

Mastitis investigations rely on collecting and analyzing data from a variety of sources. These are shown in Diagram 1 below, together with their relative usefulness.

Bulk Milk Somatic Cell Count (BMSCC) is probably the most common method that people use to monitor their udder health as it is

readily available. An increasing BMSCC does suggest an increase in mastitis prevalence but there are many other things that can contribute to this. These include your cure rate, average days in milk as well as the age of the herd (later lactation and older cows tend to have higher SCC).

Clinical data is probably the most difficult information to gather as it requires active recording of every case of mastitis and its treatment. Ideally this should be recorded into a computerised database as this makes analysis a lot easier, but if you don't have this on your farm then paper records are the next best thing. We have recording sheets available in the office if these would be helpful to you.

Individual SCC data is used to detect subclinical mastitis, as SCC measures white blood cells, bacteria and other cells that accumulate in the milk in response to an infection. 200,000 cells/ml is the threshold above which we say a cow is likely infected, as 75% of cows with a SCC above 200,000 cells/ml have an intramammary infection. SCC data collected over time through milk recordings is important in any mastitis investigation as it can reveal patterns of infection that differentiate between a dry period vs lactation period problem, as well as potential seasonal influences.

Bacteriology from milk samples sent to the lab to identify the likely mastitis pathogens involved can also be useful. There are two main approaches to this:

i) *clinical mastitis samples* taken prior to treatment (recording cow ID, quarter and date on the sample

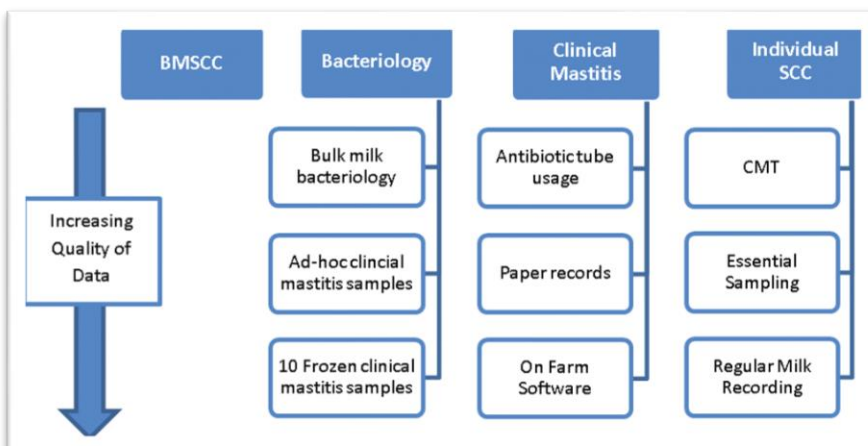


Diagram 1: different data sources for investigation of mastitis and their relative usefulness

pot) and then frozen. If this is routinely done then when a mastitis flare up is noticed the ten most recent samples can be sent to the lab for the best possible picture of what pathogens are present on farm. If frozen samples aren't available then we can collect samples as cases occur but won't get as complete a picture of what pathogens are present – and there may be a delay until a sufficient number of samples have been taken. Aseptic milk sampling technique is absolutely paramount if we want to get accurate information about the pathogens involved. Along with pathogen identification, the lab can provide information about which antibiotics should be able to successfully treat, if response to treatment is an issue. However, sensitivity in the lab doesn't always equate to sensitivity in the udder...

ii) *bulk tank bacteriology*. This uses a test called PCR instead of culture (as is used on clinical samples), so it is more likely to find any pathogens present in the bulk tank on the day of testing. This can be useful if clinical mastitis samples aren't available for some reason, but it doesn't really give us any idea of how common a pathogen is in a herd or whether it is the cause of a mastitis outbreak. A similar test which is often run in conjunction with bulk tank bacteriology is a bulk tank differential count. This test can be very useful when having a Bactoscan issue, as it can highlight particular management areas to focus improvements on.

Targeting our interventions

In order to get the best picture of what's going on in your herd we would ideally gather information

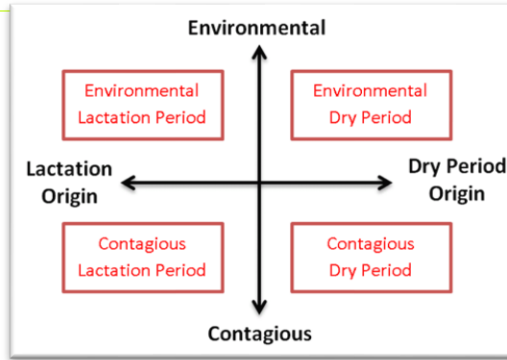


Diagram 2: Patterns of mastitis

from all possible sources: BMSCC, bacteriology, clinical mastitis and individual SCC. When we have good quality data we can more accurately assess the mastitis pattern on your farm – the less information we have, the less accurate the pattern diagnosis and therefore the less effectively we can target our interventions in the areas that are most likely to be effective on your farm.

Mastitis on your farm won't necessarily fit into one nice neat category, but we can target the one that can make the biggest difference

The four main patterns of mastitis are shown in Diagram 2, based on whether the mastitis pathogens are primarily environmental or contagious, and the infections are more likely lactation or dry period in origin. Mastitis on your farm won't necessarily fit into just one nice neat category but we can target the one that's responsible for the largest proportion of your problem. If we focus on just one area initially, we can make the biggest difference. This means that for example if you have a contagious lactation period problem and are considering teat dipping then we know that post dipping has a much greater potential to reduce your mastitis rate than pre-dipping. After interventions have been made

it is useful to reanalyse the data, as if we have been successful then a different pattern may emerge as the new biggest problem, and so will give us a new area to focus on.

AHDB has recently produced a new tool called "Quarter PRO" which aims to provide a rapid and cost-effective diagnosis of the main mastitis pattern. It is a piece of software that allows us to input your farm data (both clinical and SCC data is needed) and it ranks the possible herd diagnoses in terms of likelihood. The benefit of this software is that it will allow us to quarterly review your data quickly and easily. This Quarter PRO analysis can be incorporated into your herd health plan along with your antibiotic report. Please contact us if you are interested in having this analysis run on your herd's data. Even if you aren't experiencing a major outbreak, it will help to be aware of particular areas you can improve on to better maintain udder health.

In conclusion, mastitis can be caused by a variety of pathogens, and every farm will have different risk areas. If we can successfully identify what the main drivers of mastitis in your herd are, then we can accurately advise interventions that can reduce the risk of mastitis in the first place. If we can stop a cow getting mastitis then we are increasing profitability, as well as reducing our use of antibiotics. Mastitis control however shouldn't be viewed as something that we can fix once and never be a problem again, as it is constantly evolving and so keeping an eye on your mastitis data using tools like "quarter PRO" should ensure we keep on top of the problem.

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 Rob George 07773 384450
 John Manson 07813 690860
 John Yarwood 07814 791109
 Stuart Russell 07770 448179

Peter Duncalfe 07717 780604
 Laura Donovan 07800 647608
 Steven Crowe 07891 843694
 Mike Wilkinson 07866 257014

Jake Lawson 07891 843573
 Amy Cox 07966 833870
 Sarah Williamson 07812 173942
 Joe Mitchell 07773 342345
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