

nantwich farm vets



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Nantwich
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October 2017



Dates for your diary

25th October BVD Action Plan meeting
Nantwich Equine Centre

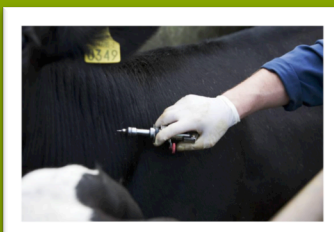
Contact the office to book in

**11th -14th
December** Dairyland Foot Trimming
Course

Contact Steve to book a place

NEW Red tractor guidelines

As of 1st October 2017 your health plan review must contain a **review of medicines used** and an **annual collation of total antibiotic used for the unit**. This should include review of medicines and antibiotic purchases, a discussion on the use of Highest Priority Critically Important Antibiotics, a review of any antibiotic failures, review of dry cow therapy and recommendations for selective dry cow therapy. This means that the use of critically important antibiotics e.g. Cobactan, Naxcel, Ceftiofyl, Marbocyl and Baytril should only be used as a last resort and under veterinary direction. Also at least one member of staff who is responsible for administering medicines should have undertaken **training in medicines** and hold a certificate of competence. Please contact the practice if you would be interested in a completing a medicines course.



Farms prevented from starting TB tests

APHA are now not issuing short interval tests for farms under restrictions if their BCMS list has dead/missing untested animals. Please make sure you inform BCMS about any missing animals as soon as possible or there may be a delay in your test being issued and you could be held under movement restrictions for even longer.



Mastitis issues?

With the warm, damp conditions we have had recently, a lot of you are struggling with an increase in clinical mastitis cases. This month **James Patterson** outlines what you can do to try and reduce the infection pressure on your cows

First and foremost is **hygiene**.
How clean are the cows?

Look critically at the teats (specifically teat ends), udders, thighs, rumps and lower legs. Just because they are no dirtier than normal does not mean that the infection pressure has not increased. During mild, damp conditions the multiplication rate for faecal coliforms (*E.coli*, *Klebsiella* etc.) and environmental *Streptococci* will rapidly increase. Bacterial numbers can double every 20 minutes in the right conditions (e.g. under a cow on a dirty bed). This means that within 2 hours a population of 10000 bacteria on a centimetre of teat skin will become 640000... This is a **64 X increase** in exposure from just 2 hours of lying. Consider how long a cow actually lies down between milkings and this number will be very large!

What can be done?

- More bedding during high-risk periods.

- More frequent addition of fresh bedding.
- Clean beds between milkings.
- Use max frequency of automatic scrapers.
- Open up sheds – Sheeted doors can be opened and replaced with gates. Space boarding can be removed in a lot of cases and ridges can be opened.
- Strategic use of fans to force fresh air into the shed can help to lower humidity within buildings. (A lot of fans for cooling cows are recirculation fans, which will simply push around stale air).



Check lying position, brisket board position and height. Bed length from brisket board to rear curb should be at least 68

inches for 650 kg cows. If your cows are bigger than this then beds should be at least 70-72 inches long. Short beds will cause cows to lie diagonally so they lie much dirtier than if they were straight.

Teat Disinfection

Even the cleanest looking cows will have high numbers of bacteria on their teats so it is vital that cows' teats are thoroughly cleaned and disinfected before milking.

There are so many products on the market designed for pre-milking teat disinfection but what are the pros and cons of each?

Chlorhexidine:

This is a highly effective disinfectant (it's actually the pink stuff we use to scrub up with before surgery). It requires a reasonably long contact time in order to work effectively and it is inactivated by organic material. Usually cheap and foams nicely.

Concentration should be at least 0.5% Chlorhexidine.

Iodine:

Iodine acts to oxidise and disrupt the cell membranes of various types of mastitis causing pathogen. It is usually quite cheap and can be sprayed or dipped depending on the preparation. Can be damaging to dry or cracked skin if used on its own. Concentrations of iodine in a teat dip can vary quite a bit but should be between 0.25 and 1%

Chlorine Dioxide:

These are newer teat dips that have to mixed in order to be in their active form. They tend to be more expensive than other types of teat dip but they are very effective teat disinfectants (likely the best if mixed correctly). They also work much more quickly than other disinfectants. Most of these dips come with excellent teat conditioners, which will help to provide smooth supple skin, which will help to reduce bacterial load.

With all dips (both pre and post) it is important to ensure that there are skin conditioners in the preparation, e.g. lanolin, glycerine or allantoin.

Milking Process

Excellent pre-milking teat prep can really help reduce the risk of new infections (even when there are other big risk factors

present) but it cannot go the whole way. The milking process can play a big role in generating new infections too.

Irregular vacuum fluctuations at the level of the claw will contribute to new infections.

Liner Slip:

Unequal weight distribution of the cluster will result in liner slip. This might be caused by pull from the long milk tube when unsupported and full of milk.

Over worn liners (more than 180 wash cycles or >2500 milkings for most rubber liners) will have a more flexible mouthpiece lip, this may flex too far when units are heavy or if there is uneven load on the cluster, this will result in slippage.

Slippage results in an influx of turbulent air, which can cause jetting of milk back from the claw to the open teat end.

Over milking:

Check ACR take-off settings and milk out of the cows. The target is to have no more than 250-300 ml of residual milk in all four quarters. In a lot of cases cows are milked dry and residuals are much lower than this. This over-milking drives new infections by causing teat end hyperkeratosis meaning that teat ends are more difficult to clean and are also a less effective barrier. A more worrying consequence of over-milking is the concept of reverse

pressure gradients. This is when the vacuum within the teat cistern and gland cistern is lower (more negative) than the vacuum at the teat end. This results in milk passing backwards into the udder. If teats are dirty then this infected milk enters the udder. This process normally happens at the end of milking so this infected milk is not flushed out of the gland therefore a new mastitis infection occurs.

Post-Milking Teat Disinfection

This is an essential step in the control of mastitis if done correctly. Unfortunately in a lot of cases shortcuts are taken with this step. At least 80% of the teat skin of **every** teat must be covered in order for the disinfectant to do its job effectively. It does not matter whether teats are dipped or sprayed but the key this is that this level of coverage must be achieved and that is easier when teats are dipped rather than sprayed. There is a big difference between milkers in their performance in this critical control step so it is vital that staff are retrained and assessed so that targets are actually being met. Automated dipping equipment must be well maintained and achieving an acceptable level of dip coverage



Vets Mobile Numbers

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“@NantwichFarmVet”



Mycoplasma: a costly problem

Mycoplasma bovis associated pneumonia and arthritis is an important, often underdiagnosed disease in the UK and Europe. It has been shown to contribute to around 25% of all bovine respiratory disease related costs in calves. In affected animals, pneumonia is thought to cost an average of £42 per dairy calf and £82 per beef suckler calf. However, these costs are conservative estimates also as they do not factor in the long-term effects of the illness.

Mycoplasma bovis associated disease usually presents as pneumonia, ear infections (head tilt), joint ill or a combination of the above. The main age that calves are affected is around 4 weeks, but they can show signs as early as 4 days. The disease can also present as either sudden onset or it can be more of a chronic lingering problem. Chronic disease is much more common as the calves are often found to be unresponsive to treatment because the bacteria can evade the immune system and antibiotics. Typical signs include increased respiratory rate, increased temperature, decreased appetite, nasal discharge and coughing. Diagnosis of *Mycoplasma bovis* as being the cause of the disease can be very difficult as it is very difficult to grow the bacteria in the lab. We have recently started doing nasal swabs of calves using a PCR test which is more sensitive to look for viruses and mycoplasma so if you would like to look for potential causes of pneumonia on your farm please ask one of the vets.

Due to *Mycoplasma* being a struggle to diagnose and treat – the best option for its management is prevention. To prevent the bacteria coming onto your farm only buy cattle from confirmed negative herds and have strict biosecurity with people/objects coming on farm. If you have mycoplasma on your farm prevention measures include: snatch calving/reducing time with cow, pasteurising colostrum/milk, reducing stocking rate in calf pens, all-in/all-out management of groups of calves, disinfection of all equipment/housing that comes into contact with calves, improving ventilation and adequate colostrum intake. Isolating the calves that have it in a separate airspace away from healthy calves and feeding them last can really help reduce the number of cases.