



THE
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GROUP

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Mastitis and SCC – When and What to Sample

As we mentioned last month, housing milking cows in the autumn and seasonal weather changes often result in a significant increase in mastitis clinical rate and Somatic Cell Count (SCC) even in all year housed units. When we see a rise in clinical cases, SCC or both, despite our routine prevention strategies, we reach for our treatment regime but have little opportunity to take a step back to assess why it is happening. As always, the key to solving issues promptly is **INFORMATION**. By the time an issue arises some of this valuable information is already lost to us. We advise submitting individual mastitis and bulk tank samples to our lab for analysis as the key parts to any milk quality investigation:

- 1 **Collect a sample of every mastitis case in the proper aseptic technique BEFORE TREATMENT.** A good sampling technique has a very significant impact on the quality and usefulness of results:



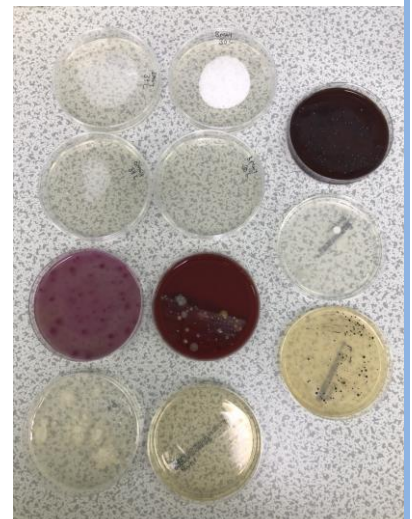
- Clean the teat (and wash and dry if dirty)
- Discard the first 4-6 squirts of milk: this contains bacteria from in the teat sphincter, but which are not causing mastitis, and must be removed
- Rub the end of the teat 10-15 times with a swab of methylated spirits
- Then open the sample bottle, keeping the lid facing downwards and the opened bottle almost horizontal. This prevents particles of dust and bacteria dropping into the bottle giving a false result
- Finally, with the bottle between horizontal and a 45 degree angle, squirt in one jet of milk and replace the cover immediately
- Label with farm name, the cow number, the date and quarter affected
- For immediate processing the sample needs to be taken to the laboratory as soon as possible, kept cool in transit

BUT... IF YOU FREEZE THIS SAMPLE IMMEDIATELY then they can be processed in groups giving us an up-to-date pathogen profile and preventing wild guessing about which treatment did or didn't work and why! You can discard samples from the freezer as you go - just retain the last one or two month's worth of samples. Processing 5 or more samples increases the chance of isolating a significant pathogen. We suggest routine monitoring every 2-3 months of 5 of the latest samples to try and be ahead of the curve.

2 Bulk tank samples

This is a great tool in locating the cause of a SCC or Bactoscan issues alongside individual cow samples. The test is based on the culture and identification of live bacteria in milk seen here growing on agar plates. It is **ESSENTIAL** that for quality and accuracy of results, that the samples are taken and transported to the laboratory with the milk remaining cool. This will produce reports that can be trusted from which on farm decisions can be made:

- Agitate the bulk tank for 2-3 minutes and check that it's cool (4° C). Using the SPECIAL POTS PROVIDED by the lab, a minimum of 20mls is required for analysis. Sample and label individual tanks
- Put the sample into the polythene bag and then into the polystyrene box, with two FROZEN ice bricks, one above and one below the sample. Refill the box with polystyrene chippings and seal with tape
- Bring the sample to the lab – even if you are travelling a short distance it is essential the sample is chilled. Samples are checked to be 10°C or lower on arrival at the lab



When investigating a SCC or bactoscan issue we have to start with what bacteria are causing the issue in order to identify the location of the problem

whether it is cow accommodation, teat ends, in the parlour or a part of the hot wash or pipe work that might be causing the lack of control. We grow the bacteria from a bulk sample on specific plates at different temperature to identify what types they are and whether they are in the acceptable limits or not. Unfortunately SCC, Bactoscan and mastitis are all linked in a fairly complicated and challenging web but the more information we gather the easier it is to solve. We have a fantastic resource with our onsite laboratory and it may just provide the answer of how best to tackle mastitis on your farm.

Planning for Housing

Last month we discussed boosting immunity by vaccinating cattle pre housing to reduce pneumonia incidence over the winter. Housing also offers the ideal time to target known internal and external parasites including fluke by manipulating normal parasitic lifecycles once animals are no longer grazing.

Parasitic Diseases at Housing

When cattle have been out grazing, they can come into the housing period with large parasite burden of worms, fluke or both. Wet pastures are high risk for fluke environment, but it is not always obvious what burden animals are carrying. Whilst wormer products often have an extended action and give some cover against lice (Macrocytic lactone wormers i.e. Avermectin types), fluke products have no persistence (working only on that day) and so timing is key. Use wormers at the start of housing to remove gastrointestinal worms giving maximum benefit to growth rates and lice. **Do not use worm and fluke combination products at housing** as one of the products is being used at completely the wrong time, wasting money and risking major disease impacts.

As you can see from the table below, you need to **wait a number of weeks after housing** before

treating for fluke to ensure that it removes all of the life stages i.e. wait for all fluke to be the minimum age of kill according to the active ingredient of the product you are using. Correct product timing stops adult fluke being overwintered in the liver causing chronic damage. When fluke are overwintered they mature into adults and are ready to shed masses of eggs onto pasture in the spring. By preventing this maturation of fluke during housing it reduces the fluke risk for the following grazing season. Dairy units are limited to using products within the dry period due to lengthy milk withdrawals but there are ways to target the peak fluke burden with correct product selection. Please speak to us about product selection for exact cases but use the below table of active ingredients for a starting guide:



Active Ingredient		Minimum Age of Fluke Killed
Triclabendazole	(Oral)	2 weeks
Triclabendazole	(Pour On)	6-8 weeks
Closantel	(Injection/Pour On)	7 weeks
Nitroxynil	(Injection)	8 weeks
Albendazole	(Oral)	10 weeks
Clorsulon	(Injection)	
Oxyclosanide	(Oral)	

New Face

Jake Hinds is joining us as a clinical vet starting in November to do Monday nights on duty and Tuesday daytime in the farm team. Please give him a warm welcome to the farm team.

Follow us on our new social media pages to stay up to date with all the latest news, events, and interesting cases from the farm team!



Wood Vets Farm Team



@woodvetsfarmteam