



our quality-focused veterinary care for your farm

THE milk carton

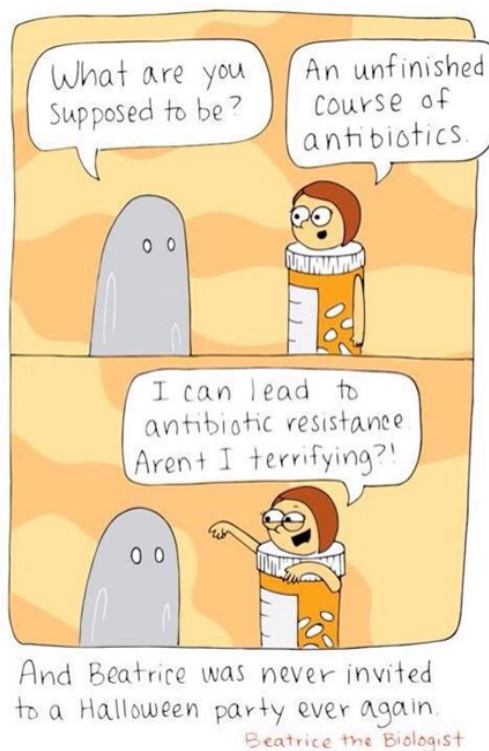
Dargaville Vets

Dairy antibiogram:

what can it do for your farm?

One or two **Dairy Antibiograms** a year could give you a clear picture of new and emerging antibiotic resistance on your farm.

MARCH
2020



A Dairy Antibiogram takes a bulk milk sample so that mastitis-causing bacteria in your milk can be evaluated.

The strain of bacteria (*Staph aureus* or *Strep uberis*) on your farm is tested against different concentrations of antibiotic treatment. This allows us to a) determine if cows will cure when treated with an antibiotic product, and b) tell you whether you have genes for anti-biotic resistance.

Resistant bacteria carry a **Genetic Resistance Element** and may not be killed by higher concentrations of antibiotics.

Most farmers have a level of concern about antibiotic resistance. Bacteria can develop the ability to survive and grow in the face of antibiotic treatment, a result of bacteria repeatedly being exposed to antibiotics and then developing mechanisms to 'outsmart' the antibiotic.

When it comes to antibiotic resistance, we know that not all farms are the same, but genetics are similar between affected cows on the same farm. A Dairy Antibiogram test is a valuable surveillance tool for the resistant genes on your farm.

STAPH AUREUS

Milk testing available at LIC

Clinical or subclinical mastitis caused by *Staph aureus* can be more costly than other bacterial causes as these particular bacteria are highly persistent in cows.

Staph aureus likes to hide inside the cells in the udder tissue and this can make it very difficult for antibiotics or the cow's own immune system to find and kill the bacteria, it can also often cause scarring of the udder tissue.

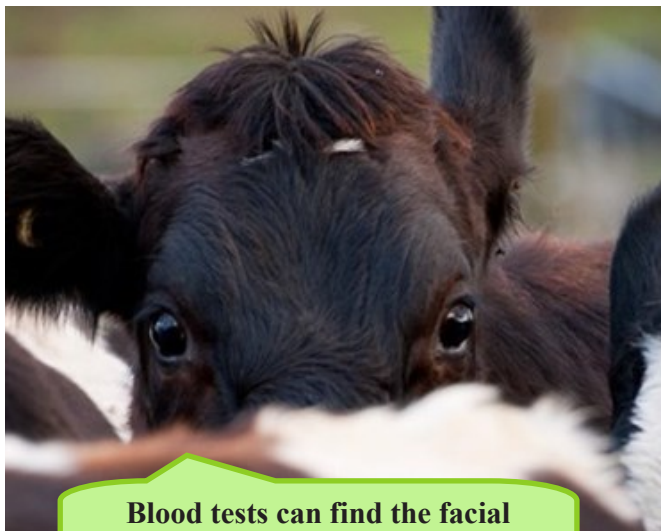
The *Staph aureus* bacteria inside cells can break out and re-infect the gland. This is why it is difficult to achieve very high cure rates once these bacteria have infected a gland and you can often end up with repeat cases or cows with subclinical infections.

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There are two main problems with subclinical infections caused by *Staph aureus*. First of all these cows may increase the BTSCC if there are quite a few of them in a herd. Secondly, they provide a source of infection for other cows so the herd gets worse and worse over time. However, not every high SCC cow has got *Staph aureus*. Other bacteria that are much more treatable can cause high SCC. To be sure which cows definitely have *Staph aureus* and should therefore be culled we can request a *Staph aureus* PCR test with your herd test through LIC. We recommend doing this test around this time, in later lactation. There is a minimum of 25 cows to be tested, and selection can be made by the farmer, by us, or certain selection criteria can be given to LIC such as all cows with a SCC over 400,000.

FACIAL ECZEMA: - how to monitor using serum Zn or GGT levels



Blood tests can find the facial eczema cows hiding in your herd

Facial eczema is a disease of the liver that results from sporidesmin toxicity. The disease occurs when cows eat pasture containing spores (produced by the fungus *Pithomyces chartarum*) which directly damage the liver and bile duct system. The classic clinical sign is red,

thickened or peeling skin. However most animals with facial eczema do not show outward signs but will still have liver damage. Spore counts from your farm can help to identify risky pastures and treatment with zinc can help to limit the effects of the sporidesmin toxin.

Given most animals will not show clinical signs, the only way to determine if you have effective management of facial eczema on your farm is to take blood tests.

Monitoring of facial eczema involves measuring **zinc levels** and **GGT levels** in the blood.

GGT is an enzyme that indicates liver and bile duct damage. It is recommended that at least 10 cows are selected to test for serum zinc and GGT levels be tested 3-6 weeks after your management program has started. This tells you if high enough zinc levels are being achieved in the cow and whether the zinc is protective against liver damage.

Contact us at the clinic to discuss taking bloods for your facial eczema monitoring.

Teat sealing:

Closing the door on mastitis pathogens at dry-off

There has been increasing scrutiny around how farmers use antibiotics - while we can still use whole herd dry cow therapy, this will change sooner, rather than later...

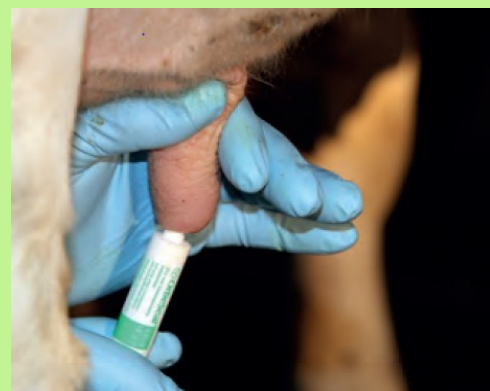
...however, this does not mean that cows should go without, at dry-off. The majority of mastitis that occurs in the first three months after calving is the result of an infection acquired during the dry period

– let's prevent it.

Cows with low somatic cell counts (below <150,000 or heifers below <120,000) are unlikely to have mas-

titis pathogens present so consider using a teat sealant. This creates a plug in the teat canal preventing new infections.

Cows with a prolonged dry period or those who are likely to be calving in very dirty conditions, consider using a teat sealant in addition to dry cow therapy. As we know it is vital to be very clean when using teat sealants. We are happy to treat your cows for you.



Ready to mate?

Phone the clinic today to book in your Ready-to-Mate consult with your vet. Sit down over a cuppa and a cookie to discuss how we can help you to improve your 6 week in-calf rate.

WANT TO IMPROVE *Your* 6 WEEK IN-CALF RATES?

Talk to
your Vet
today

Enjoy a cookie and coffee break with your vet post pregnancy scanning to chat about your results.



MYCOPLASMA BOVIS UPDATE!

There doesn't seem to have been a lot in the media lately on Mycoplasma bovis but that doesn't mean that we can completely forget about it.

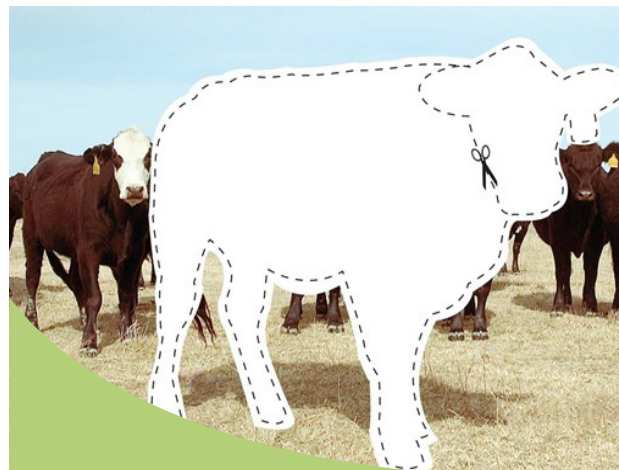


Bulk milk testing for all dairy farms is ongoing. Every month, every supplying dairy farm will have a bulk milk sample taken to be tested for Mycoplasma bovis. Usually these results are negative and there is no need to worry. Currently there is no automatic reporting of negative results to farmers but MPI aims that farmers will soon be able to access these results.

Only a small number of farms will have a positive test result; the farm will be contacted by MPI and placed under movement restrictions until further testing has occurred. Typically this involves one blood test of

animals on the farm but this is on a case by case basis.

Most farms which undergo additional testing are subsequently confirmed as not infected. The typical length of time that a farm is under movement restrictions if found to be not infected is 29 days. Currently approximately 2.7% of farms that have had a positive bulk milk test will be confirmed as Mycoplasma bovis positive compared to 5.3% of farms in the testing conducted in spring 2018 indicating that the prevalence of infection is declining – we are progressing well towards eradication.



5 good reasons For culling cows

Empty or late calving cows:

Empty cows are an obvious reason to cull, late calving cows are also candidates as they are more likely to be empty next season and will also have less days in milk.

Mastitis:

Cows that have had more than one case of mastitis during the season or are high somatic cell count on herd test may cause problems next season, they also could have contagious mastitis which they will continue to spread to herd mates even when not showing clinical signs

Age and General Health:

Cows over the age of 9yrs are past their prime milk production years and more likely to succumb to health issues. Any cow with existing health issues is also a candidate for culling or animals with disease such as Johnes

Temperament and Conformation:

Cows that are flighty, kick, or won't move up in the shed are likely to waste your time. Different aspects of conformation could predispose individuals to lameness, mastitis or calving issues.

Production Worth:

After the above factors have been culled for, PW or the 'lifetime ability of a cow to convert feed into milk' can be taken into account.



body condition score

How long does it take to increase 1 BCS in a cow?

Most cows direct extra feed towards milk production, so attempts at BCS increase are best made once cows are dry.

To gain one BCS a cow needs an extra 160kgDM above her normal maintenance level and around 60 days over which to eat this extra feed. Simple rule of thumb is for each 0.5 BCS a cow needs to increase, she needs 30 days, remember however that the last month prior to calving, a cow will not increase her BCS.

For example: a cow at condition score 4.0 needs 60 days to increase to a target of BCS 5.0 prior to calving **plus** 30 days in which she will not gain weight.

This means she needs to be dried off 90 days prior to calving.

Leptospirosis



Prevent that Seriously Debilitating Disease

Vaccination for Leptospirosis in cattle is a proven method to decrease risk of contracting this disease.

- Leptospirosis is easy to catch from an infected animal and its environment.
- Infection can occur through breaks in the skin or through mucous membranes of the eyes, nose or mouth.
- Protect yourself, your family and staff by vaccinating your animals, controlling rodents, practicing good personal hygiene, using protective equipment, and seeking help early if you feel unwell.

Now is the time to put in place your Leptospirosis program for the following year. Unsure or need help? Talk to one of our vets today.

Heifergain; for best results

Are you happy with your heifer performance? What if more are empty than you would like? The first step that I would suggest, if you do not have much information, is get the data. Blood test for trace element status, weigh to ensure they are reaching targets.

Example: we had a farmer who was very unhappy with his heifer in-calf rate. 6-7 out of 55-56 heifers empty for three years in a row. However we had absolutely no information to go on as to what may be causing this problem as we did not know the trace element status of these mobs over the past few years nor did we know if they were reaching target weight at mating.

What did we do? Blood tested the heifers and made sure their trace element status was good. Then we regularly weighed the heifers to make sure their live weight was on target for mating. In June 2019 13 animals were underweight, but by mating time only two were considered underweight. **The result:** this year only 1 heifer was empty out of 56. I am not claiming this great result is all due to blood testing and weighing, but I do believe it is a good place to start when there is a problem.

