



**CASTLE
VET GROUP**

May/June NEWSLETTER!

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Whilst we wait for summer to officially arrive, we hope you will enjoy our May/June newsletter.

In this issue we are looking at ram fertility testing. The breeding season may seem far off yet, however identifying infertile or subfertile rams allows plenty of time to replace with good stock. It is advisable to do all of your testing 10 weeks before the rams are needed.

We also look at some risk factors which can lead to milk, bulk tank failures and how to avoid them.

Please let us know what you think about the topics we have covered in this issue or if there is something you would like us to cover in upcoming newsletters. Drop us a line at castlewellan@castlevetgroup.co.uk

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Best wishes,

The team at Castle Veterinary Group

In this issue:



Avoiding Medicine Residues In Milk - Understanding MRLs

MRL stands for Maximum Residue Limit which is the legally allowed maximum concentration of a veterinary medicine allowed in either milk or meat.



Ram Fertility - Increasing profitability

The presence of a sub-fertile or infertile ram in a flock can be a real problem on a farm and affect the performance of all the ewes he runs with.

Avoiding Medicine Residues In Milk - Understanding MRLs



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Understanding MRLs

All medicines have to be tested for safety before they can be licensed for use and the withdrawal period for any given medicine is based on the MRL.

These rules sometimes seem to be onerous but we need to remember that these exist, ultimately, to protect consumers. Antibiotic residues in milk can lead to a risk of allergic reaction in some people and can affect cheese and yoghurt production, as well as contributing to antibiotic resistance.

The reputation of our dairy industry and consumer confidence is also at stake if we are unable to defend the protocols that are put in place to safeguard food products.



Common reasons for bulk tank antibiotic failures

Ultimately, most of these boil down to human error, e.g.

- Un-recorded use of a lactating cow tube or failure to correctly identify a cow under treatment
- Accidental milking of a recently dried off cow
- Dry cow calving down early whilst still under withdrawal
- Deliberately not following the withdrawal period
- Recently bought in cows – don't assume that these are out of withdrawal – always test their milk (e.g. with a Delvo test) before putting it in the tank

Although mistakes happen, having good protocols in place and communicating them to everyone involved with milking the cows is essential and should help to minimise the risk.

Very occasionally, milk from animals that are out of their withdrawal periods, may still test positive for antibiotics on an on-farm residue test such as the Delvo SP. This might lead to a bulk tank antibiotic failure and there could be several possible reasons for this:

1. If antibiotics are used 'off-licence' (not exactly as stated on the data sheet; also known as cascade use) e.g. a 6 day course instead of 5 days or tubing twice a day instead of once a day, antibiotic levels in milk can build up, extending the withdrawal period. It is necessary to use a statutory, minimum 7-day milk and minimum 28-day meat withdrawal as the normal withdrawal will not be appropriate. It may be longer if considered necessary by your prescribing veterinary surgeon; always double-check if you are unsure!

Please note, only a vet can recommend an off-licence (cascade) treatment protocol so, please speak to us if you are unsure. Written justification for cascade use of medicines should be kept in your herd health plan file.



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2. If two antibiotics of the same class, but in different preparations (e.g. penicillin mastitis tubes plus injectable penicillin) are given together and this is not written on the data sheet, antibiotic levels in milk can build up extending the withdrawal period so a statutory minimum 7-day milk/28-day meat withdrawal should be applied. It may be longer if considered necessary by your prescribing veterinary surgeon; always double-check if you are unsure!
3. For some commonly used antibiotics (including some Amoxicillin preparations), the MRL is actually higher than the level detected by the Delvo SP test. An individual cow milk sample may occasionally fail for 24-48 hours after the end of the withdrawal period, even when the drug is used correctly. If this occurs it should be reported back to the drug company, via the vet, as it is technically an 'adverse reaction'. Our advice is to believe the Delvo test first and contact your vet because the dairies use the same technology as their first line test.



One of the most efficient ways of reducing risk is to focus on reducing the amount of antibiotics on farm, for example, by using selective dry cow therapy.

Antibiotic Residue Tests

There are various types of antibiotic residue tests available; some of these can be used at farm level and some are used for more detailed investigation following a bulk tank failure. Inhibitory tests such as the Delvo test (current industry standard for routine bulk tank tests) work by growing a bacteria. The bacteria won't grow if antibiotics are present and this is linked to a colour change. These can be used to test for a wide range of antibiotics, but can take around 3 hours.

At the other end of the spectrum, a much quicker result can be achieved by using an immune-receptor test such as Beta Star. Generally, these can only be used to detect a smaller range of antibiotics; these are often used for checking a tanker before unloading it into a silo. It is worth noting that there is a new immune-receptor test available called InfiniPlex®. This can detect over 40 different medicines (antibiotics, anti-inflammatories, wormers and flukicides) within an hour – these are currently used for investigating residue failures.

The risk of bulk tank failure

If you are worried about the risk of bulk tank failure on your farm, we would recommend signing up to MilkSure and completing a training course with us if you have not already done so. One of the most efficient ways of reducing risk is to focus on reducing the amount of antibiotics on farm, for example, by using selective dry cow therapy. It is a Red Tractor requirement for each farm to have an annual review of antibiotic use so use this as an opportunity to come up with a plan with us on how to cut it down.



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Ram Fertility - Increasing profitability

The presence of a sub-fertile or infertile ram in a flock can be a real problem on a farm and affect the performance of all the ewes he runs with. It is thought that up to 10-30% of rams fall into one of these categories. Even when multiple rams are used in a group, if the dominant ram is infertile it can stop the other fertile rams from working properly.

Pre Topping Examination

A full breeding examination of all rams 10 weeks before topping allows for problems to be either corrected or replacements purchased if necessary.

The head to toe clinical examination, will including checking teeth to ensure the ram can eat well and maintain condition while serving. It is important to check for any wounds as pain and inflammation will affect semen quality. Sperm production takes 6 weeks to recover after a problem, reinforcing the importance of early testing.



A ram with greater fertility will produce more lambs on the ground.

Rams should have a body condition score of 3.5 at the start of topping. Too thin and they may not manage to serve all the ewes, too fat and they may have less libido, coupled with excess fat in the scrotum that can decrease fertility.

The ram's testicles should be palpated to assess size and shape. They should be assessed for any lumps or soft areas which may indicate infection or abscesses. The size of the testicles vary with age, breed and time of year, but as a guide should be a minimum of 28-30cm for ram lambs and 34-36cm for mature rams. The penis should move freely in the prepuce and be examined for signs of abnormal growths or trauma.

Lastly, feet and limbs should be checked for any sign of lameness.

No breeding check would of course be complete without a semen sample providing intrinsic information on the quality of semen produced and if there are any abnormalities in the semen.

Increasing profitability

The benefits of ensuring your ram's fertility is optimal has far reaching implications on profitability. A ram that is both fertile and in good health for mating will be retained longer in the flock. Thus saving on replacement costs. It will get more ewes in lamb so fewer are lost as barren.

Ewes will lamb in a shorter window of time, that is giving a tighter lambing period. A ram with greater fertility will produce more lambs on the ground. Having more lambs born in a shorter period of time will result in more kg of lamb produced by weaning time and this has the potential for a more profitable season.

Please contact us to discuss fertility testing your rams or any new additions to your flock.

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