

SHEEP ABORTION/LOWER LEVEL OF LAMBS THAN EXPECTED

Enzoitic abortion and toxoplasmosis are the two most common causes of poor reproductive performance in sheep. Enzoitic abortion, caused by a strain of the chlamydia bacterium, typically causes mass late-term abortions, while toxoplasmosis, a protozoan parasite, more often causes low scanning results and 'mummified' full term lambs. Both are diagnosable as a cause of abortion by submission of aborted foetus and placenta to the VI centre, while proof of exposure to either disease can be easily obtained by testing blood taken from a sample of your ewes.

Toxoplasmosis is the easier of the two diseases to eliminate from your flock. Infection happens when sheep eat feed contaminated with faeces from an infected cat. Animals infected during pregnancy can go on to lose their embryo (early embryonic death) or have mummified lambs at full term. However, the aborted lamb and placenta are non-infectious and an infected ewe *cannot* spread the disease directly to other sheep. Furthermore, the ewe (along with other ewes which were infected *outside* of pregnancy) will go on to develop a strong natural immunity as a result, and should not abort again. Vaccination with **Toxovax**, administered at least 3 weeks pre-tupping will essentially eradicate this disease from your flock in one fell swoop. The immunity will normally last the productive lifespan of the ewe, so after an initial whole flock vaccination, only incoming youngstock need be immunised.

Enzoitic abortion is more difficult to control. Aborted lambs and placentae are infectious to other ewes, and the disease sustains itself in a flock by infecting new ewes as they come into contact with the expelled placenta of a ewe that has aborted (venereal spread by tups is also possible, but a less common route of infection). Ewes can abort regardless of whether they were pregnant when they were infected, and it is possible (although uncommon) for them to abort more than once from the disease. Once infected with this disease, the ewes carry it for life, and retain the ability to spread it to new ewes in the future. Therefore, the best way to control enzoitic abortion is to initially vaccinate your entire flock with **Cevac Chlamydia** (at least a month pre-tupping), and thereafter vaccinate all incoming youngstock before they join the main flock. This way, over a few years, the older infected ewes will be culled out of the flock, and gradually replaced with new, immunised animals. The tenacious nature of the disease makes total eradication difficult, but gaining an effective control of it is quite feasible. Again, immunity from vaccination is strong and long lasting, and one vaccination will usually last the productive life of an animal.

Vaccinations against toxoplasma and enzoitic abortion can, when necessary, be given at the same time.

If you suspect that you have experienced abortions or poor scanning results due to these diseases, the time to speak to your vet is now, as the window for vaccination before the tups go in is rapidly closing.

TB Update for June

A first for Shropshire Farm Vets!, and don't forget this includes a few Stapeley clients as well. The total number of tests we carried out in June was 28.

The total number of animals tested came to 4117.

There were no inconclusives and no reactors!

Despite it being a relatively light month in terms of tests and headage, the fact that there has been no reactors or inconclusives truly is a first for us. In the last quarter the trend has very much been downwards with just 18227 head tested and zero inconclusives and three reactors and we can all only hope that it continues.

LATE NEWS:

Congratulations to Mike Roberts from Nobold, Shrewbury for breeding this year's Royal Welsh Show's Supreme Champion "Nobold Windbrook Joan VG89".

This cow is owned by Edward and Iwan Morgan from Carmarthenshire.

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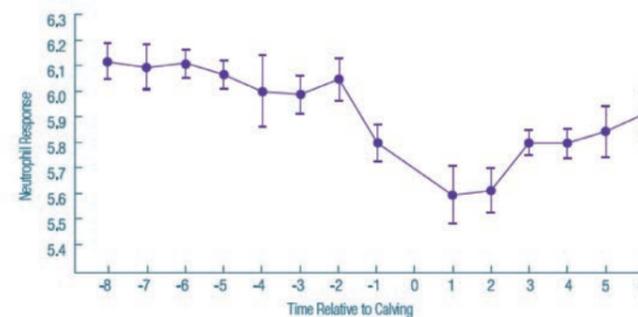
A Completely NEW Type of Medicine

There is a completely new class of medicine available in dairy cows, set to revolutionise the veterinary medicine market. In the latest innovation to reduce the use of antibiotics and loss of production efficiency in the dairy herd, Elanco have just launched Imrestor.

Imrestor is a bovine "immunostimulant", a class of drug which up until now has only been used in humans on chemotherapy to support the function of their immune system. The development of the molecule for cattle has taken 20 years of research, and has finally been proven and released. Imrestor acts by stimulating stem cells in the bone marrow to produce more white blood cells, which also work better at killing infectious agents.

So how does it fit in on the dairy farm?

During the transition period, and particularly 2 weeks either side of calving, immunity drops significantly (see picture 1). This due to several factors, including increase in the stress hormone cortisol around calving, negative energy balance and the change in calcium metabolism at calving. There is also a large genetic component, which means that this depression is seen in dairy cows, irrespective of yield and environment, unlike the periparturient beef cow who does not. This drop in



Continued overleaf

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MEDS CORNER

Velactis – well with much fanfare Velactis was announced a couple of months ago, and has subsequently been withdrawn from supply and sale. We hope this is a temporary move as this product has great potential but there have been a few problems with adverse events, predominantly occurring in Denmark, involving recumbency and some deaths. Most adverse events occurred within 8 to 24 hours following product administration. Anecdotal evidence suggests that hypocalcaemia treatments may be successful in reversing clinical signs.

Multiject – due to a price restructuring by Norbrook, Multiject will be increasing in price by a substantial amount. At time of writing I do not know what the new price will be but we are led to believe it will be in the order of 30-40%. If Multiject works for you there is probably little point in looking to change and it will still be one of the cheapest mastitis tubes we have, but if you wish to discuss this or any alternates, please talk to one of the vets.

PRACTICE/DISPENSARY TIMES

We are open 24 hours a day, 7 days a week; office hours:

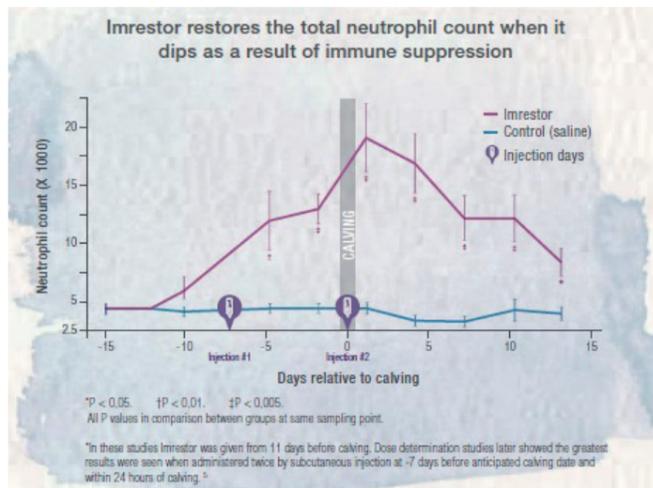
Monday – Friday 8:15 – 5.30



From front page

Neutrophil (white blood cell) count is between 25 and 40% and results the vast majority of infectious disease occurring within the first 6 weeks of calving. In particular, mastitis, metritis, retained cleansings and infectious causes of lameness.

Imrestor effectively restores the immune status of cows in the transition period, by boosting the Neutrophil count by 450% (see picture 2). In largescale European trials, the reduction in mastitis incidence averaged 26% – for which Imrestor has been granted its license. We have reports from UK trial farms, that there have also been reductions in the incidence of metritis of round 40%, for which we anticipate a license to follow. Added to this, there have been reports of increased milk sales overall, and a large reduction of as medicines used to treat sick cows.



So how is Imrestor given?

Imrestor is given approximately 1 week before calving and again at calving. It arrives in pre-loaded syringes and is given as a subcutaneous injection. Although the ideal time to administer the first dose is 7 days pre-calving as the drug acts for 2 weeks, the outside of the recommended range is 3 days to 17 days pre-calving. This makes management easier, and could even be administered at weekly or fortnightly routine visits.

As ever, no medicine is ever a substitute for good management practice. We can offer full audits, and advice for dry cow environment and management. This includes not only on farm assessment and discussion with yourselves, but where you have good disease data, we are able to demonstrate the economic case for management changes and for the use of tools such as Imrestor in keeping your herd healthy, productive and profitable.

However, in a climate where there is evermore pressure to reduce antibiotic use, and the harshest pressure on milk price in living memory, Imrestor certainly has a big role to play. Restoring the normal function of the cow's immune system at calving reduces disease incidence, maintains the health and welfare of the cow, minimises antibiotic use and cost, and avoids the heavy losses associated with mastitis, metritis etc. All of this adds up to a very exciting prospect for improving welfare, job-satisfaction, efficiency and profitability through changes to the status quo of veterinary medicine.

BVD

BVD is one of the commonest and most production limiting infectious diseases affecting the national herd, having severe detrimental effects on the profitability and incidence of other diseases on both dairy and beef farms.

The disease, misleadingly named Bovine Viral Diarrhoea ('BVD') makes its mark on the herd not by causing diarrhoea, but by reducing the reproductive performance of adult cattle, and facilitating the production of Persistently Infected ('PI') calves. The cycle of the disease is unusual, but understanding it is the key to its control and eradication, which can be readily achieved on most farms.

BVD AS A DISEASE

The cycle of the disease begins with the infection of an adult cow, via the faeces or respiratory secretions of another infected animal. The effect that this infection has on the cow now depends entirely on her pregnancy status. If the cow is not pregnant at the time of infection, she may experience a short period of raised temperature, reduced milk yield and impaired fertility. However, after this episode, which could last for between one and two weeks, she will recover with no lasting detrimental effects and a good natural immunity to the disease. If infection happens when the cow is in early pregnancy (<40 days) it is likely that embryonic death will occur and the pregnancy will be lost. Again, the cow will be left with a good level of natural immunity to the disease.

The worst case scenario is for the cow to be infected when she is between 40 and 120 days pregnant. Such a situation can cause abortion, but is more likely to lead the production of a Persistently Infected (PI) calf. This calf has, during its development, mistakenly accepted the BVD virus to be 'part of its own body', and so, when born, will be persistently infected with the disease. A PI calf, which can only be created in this way, will continue to shed the virus for its entire life, and will never clear itself of the disease. Most PIs look like normal calves, although they can be born with neurological symptoms, cloudy eyes, or other developmental abnormalities. Eventually, all of them will die of BVD in a flurry of spectacular upper respiratory tract illness (rather like very severe IBR), and for the majority, this will come before the age of 2. However, while showing few outward signs of illness up to this point, they are silently damaging your herd's profitability.

As calves, PIs will spread BVD to other calves in their housing via bodily secretions. While these other calves cannot become PIs themselves, being infected with the disease suppresses their immune systems, making them more susceptible to pneumonia and scouring, and increasing the severity of these diseases when they strike. As bulling heifers, circulation of the disease will reduce fertility, and, if infection of new animals happens during that crucial period of pregnancy (40-120 days), a new PI calf will be produced, bringing the disease cycle full circle. If a PI survives to breeding age, her offspring will also be a PI 100% of the time.

DO I HAVE BVD ON MY FARM?

Fortunately, this question is easily answered. A handful of blood samples taken from home-bred, unvaccinated breeding females will reveal whether the disease is circulating in your stock. In dairy systems, a bulk milk sample can identify the presence of a PI (or PIs) in the milking herd.

CONTROLLING AND ERADICATING BVD

Eradicating BVD from your farm centers around one key objective: identifying and removing PI animals from the herd, while instigating a vaccination program to protect naïve animals and prevent future infection from outside sources.

Identifying PIs within your herd can be done in one of two ways:

- **Blood sample the herd.** Blood testing all animals will allow you to rapidly identify which animals are PIs, and subsequently remove them from the herd.
- **Tag and Test.** You can now opt to ear tag your calves with a BVD 'check tag', which acts as a normal primary tag, but also punches out a small tissue sample when applied. This sample is then tested to see whether or not the calf is a PI. Any calf that is revealed to be a PI should be removed, and its mother blood tested to see if she is also as PI (as a PI cow will always produce a PI calf). All PIs in the herd can be identified and removed in the time it takes for all cows to calve – typically less than 2 years. This method requires no extra labour, as all calves need to be tagged anyway.

With either method, it is important to quarantine and test any new bought-in stock for the disease if you are to subsequently keep it off your farm.

VACCINATION

Vaccination of your stock will protect them from infection with BVD, although it will not 'cure' a PI, or stop her from having a PI calf. Vaccination will protect naïve stock during your eradication program, and ensure that once you have removed all PIs from your herd, the disease is not accidentally reintroduced from elsewhere.

We have used Bovilis BVD for years and it remains a very effective vaccine, though there is now a new vaccine for the job, Bovela, a single injection given at least 3 weeks prior to insemination, offering 12 months' protection for the cow and her developing calf. The very strong immune response to vaccination with Bovela means that only one injection is needed as a primary course, with a booster 12 months later.

Vaccinating in conjunction with one of the above methods of identifying and removing PIs will allow you to eradicate BVD from your farm in 2 years or less. For the modern farmer, the financial and ethical return from eradicating BVD makes the decision to take action a simple one.



FLOCK HEALTH PLANNING

short term investment for long term gain

Last year SFV successfully launched its revamped flock health plan. Complete with a handy wall planner, USB and hard paper copy, several farms committed to an hour and a half round a coffee table discussing their flocks. We looked in depth at the current status of the flock, areas that shepherds were concerned with and used any information available to assess where gains may be made in the future. The end result of the planning session was a list of achievable goals for the next twelve month to help improve the profitability, productivity and performance of the flock.

One client who completed a flock health plan and subsequently did some pre-tupping bloods with Emily last year gave the following testimonial:

This year out of the same ewes as last year we achieved 225 more lambs hitting the ground by spending the time on the plan and putting together an action plan for the next lambing.

Flock health plans are an active and fluid document that should be used and adjusted as necessary. The role of a vet within sheep farming is no longer the fire fighter approach where we only ever make contact at lambing or when the wheels fall off but should be a partnership to help you achieve the absolute maximum potential from your flock. Whether it is nutrition, worming, infectious disease or any other number of problems please come and talk to a vet about putting a flock health plan in place.