



NSV/S LTD

VetTIMES

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September Newsletter 2007

Situation Comment

After the coldest winter for a number of years we have experienced a good start to the spring. Despite feed in general being short up to this point, temperatures are beginning to warm up and grass growth will follow.

The increase in dairy payout has meant that dairy farmers are pretty happy at present and many sheep farmers will be following into the industry. From an animal health point of view calving has gone well with some farms having very low levels of intervention. Mastitis levels are similar to last year but most have struggled with an increase in BTSCC with grades being common. It just goes to show that we can't slacken off in our detection and treatment regimes, especially with cow numbers increasing dramatically at present. Calf scours have also been a problem as usual but have been more severe in many cases.

We have had a great start to lambing with the weather being very kind so far. Abortion levels have dropped back slightly from last year and in general ewes are surviving. By far the biggest culprit is S.brandenburg.

We remain confident that Equine influenza can be managed in Australia and that it will not negatively impact on the breeding operations in Southland, though some Australian semen may not be able to be sourced.

We are looking to summer with great enthusiasm.

Staff changes: We would like to welcome Lee-Ann Rule to the clinic in her role as retail assistant/receptionist. She has slotted into the role brilliantly and we are delighted to have her on board. Lee-Ann has stepped into Fiona's old job as she has taken up the Retail Managers position vacated by Jenny's maternity leave. We wish Jenny, Ed and Ben all the best. We will also unfortunately be saying goodbye to Alicia after almost two years of service, we wish her well in her new endeavours. We will have a replacement shortly from a list of some excellent applicants.

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ZOONOTIC DISEASE

Zoonotic diseases are diseases that affect both humans and animals. For most of the diseases the farming and veterinary communities and abattoir workers make up the groups most commonly afflicted.

New Zealand is free of most of the headline grabbing examples - Bird Flu, Rabies, Mad Cow Disease/ CJD, but does still have several potentially fatal examples.

Leptospirosis is possibly the disease that first springs to mind. Dairy farmers, abattoir workers and vets are common victims. However the disease is not restricted to dairy cattle. Recently human cases in Southland have been in deer abattoirs. Sheep and beef flocks often show high levels of exposure when blood screening is done.

Campylobacter, Salmonella and Yersinia are bacteria that cause abortion, scouring and death in a range of production animals

and in people.

Bovine Tuberculosis can cause respiratory disease in people but cases are rare. Johnes disease has been linked to Crohn's disease in people although the evidence is not conclusive.

Other examples are Coronavirus, E.coli, Cryptosporidia, Coccidiosis, Toxoplasmosis and Tape Worms.

Often the diagnosis of a Zoonotic disease in people is slow as many of the diseases cause vague symptoms that are easy to interpret as more common ailments.

Given the huge number of nasties out there, how have we managed to survive, and how can we hope to continue to do so? As with most disease control programs hygiene is critical. Most of the diseases mentioned can be transferred by the faecal/oral route—an unpleasant thought at best.

Washing hands before eating, drinking or smoking, cleaning equipment and footwear away from the house, and wearing gloves when dealing with and disposing of contaminated material is a good start.

Children particularly infants are more susceptible to disease and less likely to be aware of hygiene. Extra care needs to be taken to protect them.

Minimising the likelihood of exposure in the first place by controlling or preventing the disease or parasite in animals is also highly effective. This will involve a combination of management, vaccination and treatment depending on the disease.

M Baer B.V.S.c

Lactation and Lamb Growth to Weaning

The weight of the lamb weaned per hectare is the index most closely linked to profit. The number of lambs is the biggest driver of this and lamb weight is next. Frustratingly it is difficult to increase weaning weight. Going back to the 70's and 80's we were happy with weaning lambs at 23kgs. Today we would consider that as being poor production. Making the jump in weaning weight to 28kgs, has been achieved through better feeding and heavier ewes. It will be hard to lift it any more.

There are a lot of monitoring results that show different growth rates from birth to weaning, but generally

-Single lambs grow up to 300gms per day.

-Twin lambs grow up to 250gms per day.

-Reports on high lamb growth heard at the local, in the media and in general conversation can come for a number of reasons.

- 1) Comparing growth rates over a short period of time (less than 2 weeks)
- 2) Different gut fill between weighings.
- 3) Estimating growth rate on those sent to the freezing works.

The most difference in lamb growth rate is derived from high quality pasture and high milk production rather than genetics and high birth weight.

EWE MILK PRODUCTION

Ewes reach peak lactation 2-3 weeks after lambing. At 8 weeks after lambing ewes with twin lambs need 20% more feed than single lamb ewes.

A ewe with twins produces 30-50% more milk than a ewe with a single.

EWE UDDER DEFECTS

These can be a significant cause of poor lamb growth rates.

Since in most flocks now the majority of lambs born are multiples, the benefits of a fully functional udder are huge. In many flocks there is no culling based on udders. Farmers who do check udders often do it at weaning when the udder is still quite full and small but significant lesions may be missed. Also cases of mastitis that occur around the weaning period will be missed. So the best time to examine udders is some weeks after weaning. You need to palpate deeply into the udder tissue.

EWE BODY CONDITION SCORE

To get high lamb weight gain after birth we would advise, multiple bearing ewes have a body condition score of 3 or more and are being fed increasing amounts leading into lambing, just as you should do to maximize lamb survival.

Even well fed multiple bearing ewes lose condition between birth and docking. But the important fact is that they were in good condition at lambing.

NUTRITION

Better fed ewes wean heavier lambs. Getting spring feeding right is important. Ewes need to be fed well in early lactation and lambs need access to high quality pasture in the second half of lactation. Once lambed, ewes should be on residual pasture covers of 1200-1400 kgDM/ha. That is pasture 5-8cm high. In the second half of lactation when well over 50% of the lambs diet is pasture, that pasture has to be of high quality for them to achieve high weight

gains. Variation in suckling lamb growth rates between farms occurs over this period. The difference in the amount and quality of the pasture that lambs are grazing varies hugely between farms.

Short growing pasture that is high in leaf and low in dead matter is ideal, but this time of year it is probably too early for clover.

Longer pastures that are trying to become reproductive are damaging to lamb growth rates. A danger of later lambing dates, is the risk that pasture suckling lambs have to eat is declining in quality. This is exaggerated if the pasture covers at the start of lambing are too good. That is in excess of 1300kgm DM/ha. Increasing pasture growth rates on top of good pasture cover can lead to poor quality pasture in late spring.

Farmers who get good lamb weaning rates are busy in the spring! Adjusting grazing pressure to ensure that suckling lambs have a high quality pasture to graze! Start rotation with singles, shutting up some paddocks, putting extra mouths in others.

WEANING DATES

The time of weaning should be a highly variable time depending on feed situation, ewe condition, lamb performance, and disease situation (eg. Enzootic pneumonia). Ewe condition/weight should be such at weaning that they can be bought back to a mating weight in April. Single and twin bearing ewes are often at different liveweights in late lactation so may have to be weaned at different times.

FEED SUPPLY

When pasture covers are high and ewes are holding their weight there is less need to...



**“Better fed
ewes wean
heavier
lambs.”**

Lamb Growth cont...

...wean. This can control feed surplus and maintain feed quality. In a season when feed supplies are short and ewes are losing weight, then early weaning is required. You don't want the lambs in competition with their mums for feed. Hopefully the weaned lambs are up to at least 16kg liveweight or it can become a delicate manoeuvre to handle these lambs after weaning. The lighter the lambs at weaning the more severe the weaning check they will suffer. They are best left on the mothers until they are 25-30kg liveweight, as long as ewe condition and feed supply are favourable.

COBALT DEFICIENCY is a VITAMIN B12 DEFICIENCY
Cobalt is of no direct nutritional value to animals. It needs to be converted to micro-organisms in the rumen to the essential vitamin B12. Vitamin B12 is then absorbed by the lamb and used to maintain important body tissues in which protein and nucleoprotein synthesis and fat conversion occurs. Vitamin B12 can be supplied directly by injection and is required in young growing animals who have the greatest requirement for vitamin B12. They are born with a reserve in their liver. The amount depends on the levels of the mother during pregnancy. The reserve is used to meet the young lambs requirements over the first one to eight weeks of life. The rumen of the new born lamb does not function until six to eight weeks of age, and in that time is not able to convert cobalt from pasture into vitamin B12. In cobalt deficient areas, the reserves of vitamin B12

are exhausted by this stage. An injection of vitamin B12 at tailing time maintains adequate levels of vitamin B12 and prevents a check in growth rate at this time.

SELENIUM

If lambs are low in selenium their liveweight will be impaired. This should never occur. All sheep farmers should be using selenium, whether it is with the fertilizer, in vaccine or with drench. If the ewes are vaccinated pre-lamb with a selenium clostridial vaccine then the lamb is covered to weaning. If selenium pills are used correctly the selenium levels will be taken care of.

P.A.Langford B.V.S.c

“All sheep farmers should be using selenium. If lambs are low in selenium their liveweight will be impaired”

Sheep reminders

- Lambing.
- Check B12 levels in lambs.
- Monitor and record lamb deaths.
- Get hoggets onto pasture.
- Order scabby mouth vaccine.
- Order tailing requirements.



Sheep Abortions

It's too late to vaccinate this season against abortions, but it is not too late, nor too soon to start thinking about your vaccination programme for next year. Ask yourself the following questions now and over the lambing period to identify if your profits are being affected by abortion or foetal loss.

Q. What was your scanning percentage?

(Number of lambs counted per 100 ewes mated)

The average Romney flock sits around 150%, top Romney and Coopworth flocks at 200% and 230% respectively.

Q. Were dead or dying foetuses picked up by your scanner?

Early foetal loss may be confused as barren ewes if you do not scan.

Q. Are/will you see weak or dead lambs this lambing?

Q. What is/ will your tailing percentage be?

(Number of lambs counted at tailing per 100 ewes scanned)

The NZ average is 125.3%, with top flocks up to 160%.

If you are below average or have identified some of these issues you may have a problem with foetal loss or abortion. This may be attributed to *Campylobacter* or *Toxoplasmosis*. Even if you have vaccinated, read on to see if you can improve your results.

Toxoplasmosis (Toxo)

Toxoplasma gondii is a protozoan parasite that can cause abortion in ewes.

Toxo is widespread in New Zealand, with two tooth and hoggets most at risk. The organism is found in cysts in the brain and muscle of birds and mice. These are eaten by cats where the parasite replicates and multiplies, producing eggs that are released in large numbers in cat droppings. The droppings can contaminate feed and pasture that may be eaten by sheep. Cats are infective for only one week but the eggs can survive for 18 months in the soil. Infection is for life and is of little consequence to the sheep, unless she is pregnant at the first time of exposure. In this case one of several things may happen.

1. If she is early pregnant you will get re-absorption of the pregnancy. This ewe may be mistaken as barren and may (wrongly?) end up as a cull.
2. In mid gestation (60-120 days) you may see foetal death, mummification and abortion.
3. Infection in late pregnancy (day 120+) may show as normal but infected (immune) lamb, still births, or weak lambs that fail to thrive. Often the latter are put down to other causes (which may be the case).

Most of the time the aborting ewe is 'normal'. Greyish white dots may be present on the cotyledons of the placenta, often twins are affected, with one normal and one rotten black foetus. Post mortem and lab testing of foetuses usually leads to a diagnosis. The ewe can be blood tested twice to identify Toxo levels. A low result does not however rule out Toxo.

Early vaccination, one shot, for life, at least four weeks prior to mating can protect against this disease. The vaccine has been shown to increase lambing percentage by up to 8% (3% nationally) and decrease the dry ewe incidence by an average of 13.5%. As well as this lambs born may be heavier and be more viable.

No vaccine is 100% effective, 100% of the time. Toxovax in particular is a sensitive vaccine. Incorrect handling can lead to poor protection. You only have to vaccinate for this once, do it once, do it right. Store in a dark place, between 4-8 Degrees C. The unopened packet has a short shelf life of 10 days, while the open packet must be used within two hours. Unlike most vaccines, it should be given into the muscle, so a longer needle is required, and as it is a live vaccine the needles should not come in contact with any detergents, or meths. It is also a good idea to use a new gun.

Deer Reminders

- **Stags—pour on drench/copper pre-velvetting.**
- **Hinds—copper as required.**
- **Supplementary feed as required.**
- **Sort stags into velvetting mobs.**

... sheep abortions continued

Campylobacter (Campy)

Nation wide, Campy is the most common infective agent causing abortion in sheep. It was diagnosed as the cause of 41% of abortions submitted to the lab in 2004. The bacteria are present in the environment and can be spread by birds, and contaminated water. Campy can survive up to 20 days in soil or hay during winter. Once ingesting the organism, the ewe becomes infected with the bug persisting in the gut for some time. Once in the bloodstream (bacteraemia) it can travel to the placenta (10-14 days after infection) where it can cause micro-abscessation. Foetal death occurs, with abortion 7-25 days later. The placenta and foetus can act as a source of contamination, as can the aborted ewe, where the bug may persist in uterine discharges for up to 6 weeks. Carriers can remain infective for up to 18 months, and it is in fact healthy carrier sheep introduced to the group that are the biggest infection risk.

Often Campy abortions occur in the last 3 months of pregnancy, and are often seen as 1 or 2 abortions in the 3rd or 4th month of pregnancy, followed by a storm 2-3 weeks later, however, there can be huge variation in this timing with abortion occurring anywhere from 13 to 113 days after infection so loss can occur between scanning and tailing or perinatally (3 weeks prior to birth).

The main infective organism is *Campylobacter foetus foetus*, but it is worth noting that other *Campylobacter* organisms can be involved, namely *C. jejuni*. There is a vaccine that protects against this organism as well, although there is thought to be some degree of cross protection with other vaccines. *C. jejuni* lives in the intestine of the ewe, with a high proportion of the population of sheep being 'normal' carriers. It is thought this bug is opportunistic, affecting already immunocompromised animals resulting in disease. Campy vaccination requires two shots four to eight weeks apart, both prior to mating with annual booster doses recommended prior to mating.

All maiden ewes should be vaccinated for both Toxo and Campy. Both diseases are so common and widespread, and there is good enough data to show consistent improvements in lambs tailed that it really is worth while. As we are all well aware there are other causes of abortion, namely Salmonella and Listeria.

If you wish to discuss these or any of the issues raised above, please speak to one of our vets.

R Smith. B.V.S.c.



In Northern Southland brandenburg is probably still the highest cause of abortion, but nationwide, campy is the most infective agent causing abortion in sheep !

BVD (Bovine Viral Diarrhoea Virus)

– A Synopsis

Horse Reminders

- Vaccinate pregnant mares for Salmonellosis & Tetanus
- Watch ponies condition for founder
- Clip horses out to remove winter coat

BVD is probably the most important viral disease of cattle in New Zealand.

BVD is probably the most important viral disease of cattle in NZ affecting both beef and dairy cattle. About 90% of dairy herds are infected at some time and 60% of all cattle going through abattoirs are antibody positive. Between 0.5% and 1% of bulls are persistently infected (P.I).

Foetal infection leads to the persistence of the disease in cattle populations.

Infection losses can include:

- **Reproductive effects in cows infected close to mating or when pregnant, higher MT rates, abortion, mummified foetuses, early embryonic loss, stillborn and weak “dummy” calves, deformed calves.**
- **Diarrhoea – mainly seen in young growing stock**
- **Immunosuppression for up to 6 weeks making animals more susceptible to other infectious conditions**
- **Temporary infertility in bulls**
- **Some calves are born P.I.**

The virus can be secreted in mouth, eye and nasal discharges, faeces, urine, milk and semen. Direct contact is the main form of transmission. P.I. animals are much more effective at disease transmission than transiently infected animals as they constantly shed large amounts of virus.

Once an animal becomes infected the virus multiplies in the lymph nodes (about 6-7d) and spreads through the bloodstream (for about 4-6d). This will lead to transient infection. It is at this point that transiently infected pregnant animals will have viral transmission across the placenta to the foetus. In young stock (up to 2 years old) there will be a check in growth, with immunosuppression and possibly diarrhoea. Antibodies will be produced in a normal animal about 2 weeks after exposure. The length of immunity appears to vary but certainly will be for a couple of years at least.

Infection in a pregnant animal:

Day -9 to 20 - failure to conceive

Day 9 to 150 - congenital defects

Day 20 to 180 - embryonic loss, abortion or mummification

Day 30 to 125 - P.I. calf

Day 180 plus - birth of an antibody (Ab) positive calf

Although most P.I. animals are poor-doers some are indistinguishable from their cohorts. It is estimated that 0.5% - 1% of adult cattle are “healthy” P.I. animals.

A lot of P.I. animals will die before 2 years of age due to ill thrift related disease, e.g. parasitism, enteritis, pneumonia, and others will develop fatal mucosal disease. Outbreaks of mucosal disease can occur in P.I. animals.

Good laboratory tests exist to detect circulating viral antigen (Ag) and antibody (Ab). Ag is used to detect carrier animals. This is a blood test for animals 3 months of age and older, or a skin test for those younger.

To diagnose BVD abortion or an abnormal calf, post mortem and testing of the spleen is preferred.

Ag positive will mean: 1- transient infection, if retested in a few weeks will become Ag negative 2- P.I. animal

Most Ag positive animals are P.I. as they have a much greater viral load and transiently infected animals are only positive for 4-6 days. P.I animals are mainly Ab negative.

The Ab ELISA blood test will give a positive or negative result.

Positive:

1. Can be derived from Colostrum up to 8 months old.
2. Been exposed to virus and immunocompetent.

Negative:

1. Never been exposed to the virus
2. P.I. animal

In dairy herds the bulk tank milk can be screened to give an idea of herd immunity levels.

Once a P.I. animal is detected it should be culled immediately to reduce spread to other cattle. P.I. animals have been used as a “natural” vaccination but this is not recommended as it can cause significant disease in young stock, and not all in-contact animals will become infected and develop subsequent immunity.

Where BVD has been eradicated or control attempts are ongoing then biosecurity measures must be taken as reintroduction of BVDV can have devastating effects in naïve herds and also result in large numbers of P.I. calves.

- **Biosecurity controls:**
- **Test all bought in cattle for Ag before arriving on farm especially bulls**
- **If not tested before arrival then quarantine and testing prior to mixing**
- **Bought in pregnant cows would need to have the calf tested even if the cow is Ag negative (Trojan cows)**
- **Stock grazed off farm should not mix with other stock**
- **Good quality boundary fencing to prevent stock mixing**
- **Clothing, footwear and vehicles can be carriers of contamination with blood or faeces.**

Vaccination Protocol – BVD

There are 3 vaccines available in NZ but only one has a “foetal protection” claim. Vaccination can be timed to protect young stock at weaning from transient infection or more commonly to prevent reproduction losses prior to mating.

The recommended optimal vaccination protocol is as follows:

2ml dose given I/M

Given to animals 8 months of age or older.

Primary course: Two doses given four weeks apart.

The optimum time for completion is 4 weeks prior to the start of mating.

Annual booster: Single dose given 4 weeks prior to mating

Whilst the above recommendations are the optimal, variations can be made without significantly reducing the benefits achieved from vaccination.

In a herd with major BVD problems it would however be recommended that vaccination is carried out around one month prior to mating.

Why?

The antibody titres rise to a high one month post vaccination then begin to decline so the shorter the time from vaccination to the critical period of infection the greater the level of protection. Therefore herds under a high challenge would benefit from vaccination at the optimum time.

Bulls are the animal class that will tend to have the highest economic impact on the herd. Therefore **as a minimum we recommend that all bulls brought onto your property are tested negative for virus AND vaccinated.** If not vaccinated they can become transiently infected and have reduced fertility for up to six weeks.

Talk to one of the vets today about your options.

M Greene M.V.B , M.R.C.V.S

“About 90% of dairy herds are infected at some time”

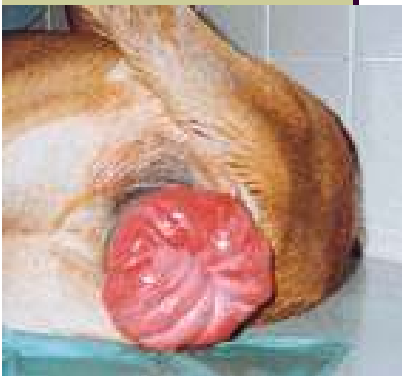


Dairy—Cattle reminders

- Dairy calves—debut
- Plain bloat control
- Mastitis—review control programme
- Pre—mating trace element check
- Metricheck cows

Pet reminders

- Check for signs of unexpected pregnancy in cats
- Flea prevention



Vaginal Hyperplasia

Vaginal hyperplasia is excessive mucosal folding of the vaginal floor in such a manner that tissue protrudes through the vulva lips. It usually occurs during pro-oestrus and oestrus phase of the bitches reproductive cycle ie when she is 'on heat'. The elevated oestrogen hormone levels at this time, cause vaginal oedema and weaken the muscles of the vagina floor.

There are 3 grades of vaginal hyperplasia:

Grade 1: No tissue protrudes from the vulva, only internal examination can confirm the condition.

Grade 2: Fleshy pink tissue protrudes from the vulva.

Grade 3: Vaginal Prolapse – the entire vaginal lining is enlarged and protrudes from the vulva.

If the hyperplastic tissue is not causing a problem (grade 1) then surgical correction is not indicated. The tissue may be seen protruding when the bitch is lying down but disappears when she stands. An Elizabethan collar can be used to prevent self trauma and she should not be worked. Most commonly bitches are presented at grade 2 or 3. Initially the mass protruding is smooth and glistening but with prolonged exposure the surface becomes dry and ulcerated. This leads to surface layers dying and becoming secondarily infected, which can occur within a twelve hour period. It is important to keep the prolapsed tissue clean and moist while veterinary attention is sought to replace the prolapsed tissue as soon as possible. A 'purse string suture' will be placed in the vulva lips to help prevent recurrence. The hypertrophied tissue should regress as the oestrogen levels reduce with the bitch going 'off heat'. If the prolapsed tissue is too severely damaged then an operation may be performed to remove non viable area and reduce the prolapsed tissue.

Usually vaginal hyperplasia occurs on the first oestrus cycle and continues to be a problem each time the bitch cycles. On occasion, we may see it again on the 63rd day, whether she is bred or not. It is recommended that a bitch is spayed to prevent recurrence.

J Sloan B.V.M.S, M.R.C.V.S

Oestrus control and Non-cycling cows.

As most of you are aware by now there will be changes this year to some of the treatments used for non-cycling cows and synchronizing cows and heifers. Oestradiol benzoate (ODB) containing milk has been banned by the EU. It was most commonly known by the drug name Cidrol and was involved in CIDR and Cue-Mate treatment programmes. This has been a purely political decision rather than a food safety decision. Essentially we are left with two options for non-cycling and synchrony treatment – in essence an Ovsynch programme with or without a Cue-Mate. All of our dairy and beef farmers who have used either of these treatments in the past will be contacted and individually we will discuss the options and personalise a plan for the most appropriate treatment protocol.