Otautau Vets
OVL VET NEWS

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STAFF NEWS

We would like to start by introducing **Jennifer Campbell**, who is the latest member of our Veterinary team. Jennifer grew up in Scotland, studied at Glasgow University and has spent the past two years working in mixed practice in the Scottish Highlands. Jennifer is another sports fanatic and no doubt will enjoy all that the Southland region has to offer.

We said goodbye to Tiarna in December and would like to thank her for her hard work over the past few months. We hope that she is enjoying her new job and wish her all the best for the future.

Most of us managed a break of some sort over the Christmas Holidays and so we are all refreshed and raring to go for the ram palpations and pregnancy testing.

STAFF PROFILE

Robyn is a true local, having been born and raised in Otautau. After school, she spent 18 years working with young people in Christchurch and travelling the world, before returning to Southland in 2011. Robyn wanted a career change and enrolled on the Veterinary Nursing course at SIT, completing her Vet Nursing Certificate in 2012 and her Diploma in 2013. Outside of work, Robyn is a keen runner and also enjoys spending time relaxing and socialising with friends. Robyn is enjoying being back home in Southland with her family and not forgetting her cat, Harvey.

SHOP TALK

Toxo/Campy/5-in-1 Orders

Just a reminder to you all about your Sheep Vaccination order form, which you should have received in December. If you haven't already, please complete and return this form as soon as possible to ensure that we have your vaccine supplies when required.

Androvax

Lamb numbers are the key driver of sheep farm productivity. Androvax is a vaccine that can increase your lambing percentage by increasing the number of eggs available for fertilisation, thereby increasing the number of lambs born by an average of 20%. To make the most of this, it is essential that management strategies are in place to ensure that there is enough feed available to grow the increased numbers of lambs at optimal rates and for the additional ewes rearing twins to regain their liveweight before the next mating.

The use of Androvax does require careful consideration and planning as the first vaccination needs to be given 8-10 weeks before mating if it is the first time you have used the product. For more information on Androvax, please speak with one of our vets.

The Ultimate Water Bowl

The Ultimate Water bowl is like no other water bowl. The thick walls not only store 2L of water, but they keep the water cool throughout the day and the replaceable filter means that the water is kept clean and fresh. There is a specially designed 3-way tap that can be removed to fill the walls, locked to prevent spillage when travelling or opened to allow flow of the water into the bowl for your thirsty canine companion. This really is the ultimate accessory for any dog!

Clinic Renovations/After-Hours Parcel Collection

We are nearing the end of our clinic renovations and would like to thank you all for putting up with the noise in the clinic and on the end of the phone over the past few months. We are hoping to be finished by the end of this month and thought we should let you know about the new parcel collection facility we have in the new building. Standard and refrigerated parcels can now be collected from a secure room on the north side of the building (near the stables/outside kennels). This room will have a keypad entry system and a unique code will be texted to you each time you request a parcel for after-hours collection. This will greatly increase the security of your parcels after-hours and will hopefully be a big improvement on the old system……provided you don't delete the text!

CATTLE SECTION

Combination Dry Cow Therapy

The main aims of antibiotic Dry Cow Therapy (DCT) are

1. To cure existing intra-mammary infections (IMIs) present at drying off.
2. To prevent new intra-mammary infections (IMIs) occurring during the dry period.

There is plenty of evidence to support the use of antibiotic DCT and it is well documented that unacceptably high levels of new IMIs occur at calving when no antibiotic DCT is used at drying off. Furthermore, antibiotic DCT has been shown to be more effective than lactating cow antibiotics in treating existing IMIs present at dry-off. Whist the dry period offers the best chance of cure, it is important to realise that at certain times, the dry udder is particularly susceptible to new infections; delayed formation of the keratin plug leaves the teat end freely accessible to bacteria and results in high rates of new IMIs. Studies have shown that environmental bacterial infections are much more likely to occur over the dry period than at any other stage of the lactation, either due to failure of formation of the keratin plug early in the dry period, or loss of the plug in the late dry period.

With the improvement in milk quality in recent years, the emphasis has moved towards preventing new IMIs rather than the treatment of existing ones and as a result, the importance of Internal Teat Sealants has been recognised. There is little doubt that internal teat sealants play a significant role in the prevention of new IMIs during the dry period. Internal Teat Sealants act by providing a physical barrier to infection of the udder by sealing the teat canal. After calving, the sealant is either sucked out by the calf or by the milking machine and from this point, plays no further role in preventing mastitis.

An early study that compared the use of antibiotic DCT alone to antibiotic supplemented with an internal teat sealant in high SCC cows showed that cows receiving combination therapy were significantly more likely to be free from infection at calving and significantly less likely to develop mastitis during the first 100 days of the subsequent lactation. Further studies have looked at the use of combination therapy in low SCC cows, with findings indicating that combination therapy does not have the same benefit in these individuals; low SCC cows were less likely to be positive for a major *Staphylococcal* or *Streptococcal* infection post-calving, but were significantly more likely to develop clinical coliform mastitis in the first 100 days of their lactation. This finding may be of less significance here in NZ, as our pasture-based systems mean that the incidence of environmental coliform mastitis is generally low. However, the increasing use of feed pads and winter housing may result in an increase in coliform challenge, which could manifest in more clinical mastitis in early lactation.

A recent study in Australia looked at the incidence of both clinical and subclinical mastitis in cows treated with either long-acting DCT or long-acting DCT + Internal Teat Sealant, the results of which may have more relevance for our farming systems. The results indicated that:

- The rate at which cows were diagnosed with clinical mastitis over the first 21 days of lactation was lower in the group that received internal teat sealant.
- After 21 days, the rate at which cows were diagnosed with clinical mastitis was similar between treatment groups, but still lower in the groups that received internal teat sealant.
- The overall incidence of clinical mastitis after 100 days in milk was lower in the groups that received internal teat sealant.
- Cows with a high SCC in the previous lactation were more likely to get mastitis than those that had a low SCC. However, in the first 3 weeks post-calving, the incidence of clinical mastitis in the teat sealant groups was the same for both high SCC cows and low SCC cows.
- The beneficial effect of the internal teat sealant in combination therapy was greatest for those cows with a high SCC in the previous lactation.
- Use of combination therapy was associated with a reduced incidence of subclinical mastitis in the first 7-50 days post-calving (assessed by SCC at first herd test).
- Overall, the use of combination therapy at dry-off was shown to be of benefit in reducing the incidence of both clinical and subclinical mastitis in the first 3 weeks post-calving.

The incidence of clinical mastitis in early lactation varies greatly from one farm to another and it is important that the use of internal teat sealants in combination therapy is recommended only after consideration of the individual farm situation. If you would like to discuss the potential benefits of combination dry cow therapy for your herd, please see your vet at the time of your annual Dry Cow Therapy prescription.

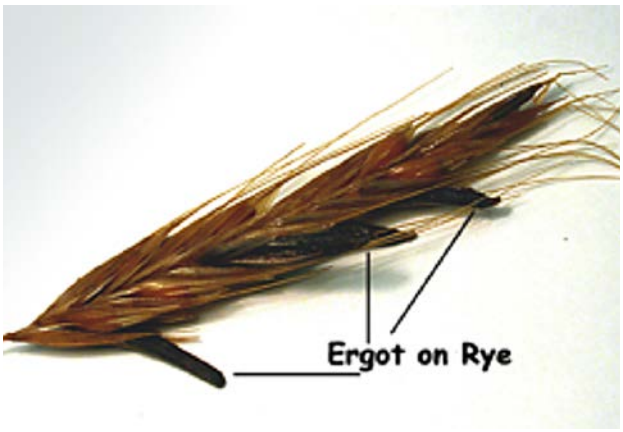
Ergotism

Last season, we saw an increased incidence of Ergotism and unfortunately, the reasons for this increase are numerous, including local weather differences. The cause of the disease is a fungus, which in warm and wet conditions develops on the seedhead of ryegrass and results in Ergotism if fed to stock.

Grazing "gone to seed" feed, either standing or conserved (as hay, silage or baleage), will be of higher risk since there is more toxic material than when the plant is predominantly in its leaf stage. Once such feed is conserved it is much harder to monitor the infection status so decisions about which bales are safe are hard to make. This emphasises the importance of quality control *at the time of feed conservation* so that it is known to be safe to feed to stock. Decisions about timing of the cut and bale when conserving feed must include reference to the development stage of the feed, not just the bulk. If seed head is present, there should be close observation before harvest to determine whether it is infected and hence its suitability for stock feed.

Ergotism appears in two forms; gangrenous and less commonly

Ergotism continued



convulsive. The toxin causes contraction in the smooth muscle in the body, including the smooth muscle of blood vessels, resulting in constriction of the blood supply to tissues. The extremities (tail, ears and distal limbs) are most commonly affected, eventually becoming gangrenous in a similar way to the tail after a tailing ring has been applied. Unfortunately, once the signs are seen, the irreversible damage has been done and there is no effective treatment. Severely affected animals must be humanely destroyed since the dead tissue will not heal and cannot be replaced. Lameness is the most common clinical sign, which results from the pain associated with the reduced blood flow in the limbs and the dying tissue. Affected animals may also show shaking or kicking of limbs and loss of condition secondary to reluctance to graze. Neurological signs may be seen with the convulsive form of the disease, with animals showing trembling, shaking, wryneck, muscle spasms and convulsions.

Please contact the clinic and speak to one of our vets if you are concerned that you have affected stock.

SHEEP SECTION

Salmonella Season

We are unfortunately approaching Salmonella season and felt that a reminder about the disease and required booster vaccinations would be worthwhile for everyone.

Salmonella hindmarsh is the strain of Salmonella responsible for causing the disease outbreaks we have seen in late summer/autumn in recent years. Outbreaks most commonly present as suddenly dead stock, but affected individuals may be seen looking lethargic with khaki-coloured diarrhoea. All ages of stock may be affected and historically, stress has always been associated with the cases we have seen; yarding, feed shortages and even changes in weather can be a significant stressor.

The bacteria is able to survive, both in the gut and the environment for long periods of time and is usually spread by carrier animals excreting on pasture, but can be spread via contact with infected animals in sheep yards or via vehicles and birds. Basically, the bacteria is always present on our farms, just waiting for the right environmental conditions to cause disease.

In the last couple of years, there appear to have been localised pockets of infection, with several neighbouring farms affected. However, these outbreaks did not fit with the more 'traditional' thinking about the disease; in most cases the ewes were in very good condition, had not been yarded and were on a good or rising plane of nutrition. A change in the weather has been thought to be the contributing factor in these more recent outbreaks.

Diagnosis is often based on clinical signs and history, which is then confirmed by laboratory samples following post-mortem examination. Some affected individuals do recover following treatment with antibiotics, but response is often limited.

Salvexin® +B, has traditionally been used to protect against abortion storms secondary to *Salmonella brandenburg* infection, but the vaccine also protects against infection with *S.hindmarsh*. Unfortunately, due to the reduction in routine vaccination and the culling of previously exposed sheep to make room for naive replacements, the overall immunity of the NZ sheep population to all Salmonella organisms has steadily reduced to a low level.

Vaccination

Unfortunately, we can't predict when the disease will strike or how severe the outbreak will be, but a vaccination and management plan ahead of any disease challenge will go a long way to helping prevent disease outbreaks and minimise losses. To best protect your stock from the effects of *S.hindmarsh*, all stock should be vaccinated from weaning onwards. Any replacements or sheep not previously vaccinated will need a primary vaccination course consisting of a sensitiser and a booster dose 4-8 weeks apart; the 2nd dose of vaccine should be administered at least 2–3 weeks prior to the anticipated danger period (January/February). Thereafter, a booster vaccination should be given annually, preferably just prior to the anticipated danger period. It is important to remember that the booster vaccination is essential, even if the deaths have stopped as a result of the first dose; protection from the first vaccination is only short term and deaths may re-commence a few weeks after the initial dose if the booster is not also administered. Vaccination at this time of year will also provide some protection against *S.brandenburg* abortions later in the year, but if you want full protection against both strains, you will need to booster vaccinate your stock prior to both risk periods.

Vaccination during an outbreak may give some protection, providing it is early on in the outbreak and other risk factors have been taken into account i.e. reduction in stocking density, increasing feed allowances and avoiding unnecessary yarding. Vaccination in this instance will usually reduce the deaths, but there will still be some losses. The decision to vaccinate under these circumstances must be on an individual farm basis and must take all risk factors into account, as the stress of yarding and vaccination can result in a rapid escalation of the disease.

After vaccination, some ewes may develop a mild sickness lasting 24-36 hours resulting in a temporary reduction in appetite. There are risks associated with yarding ewes at any time and every precaution should be taken to only yard ewes for a short period of time.

It should be remembered that Salmonellosis is also a zoonosis, so hygiene of staff, family and especially children, who are most vulnerable, is vitally important.

If you think you may have had some cases of Salmonella already this season or would like to discuss your options with regard to preventing further outbreaks of Salmonella in your stock, please contact the clinic and speak with one of our vets.

DEER SECTION

Understanding Reproductive Wastage

Productivity within the deer industry has increased dramatically over the past thirty years, but the reproductive performance of New Zealand deer farms remains low. It has been shown that each year, around 15% of the farmed hinds in New Zealand will fail to produce a live calf.

It is hard to compare one farm to another as calving rate, weaning rate and pregnancy rate mean very different things, but are often interchanged; some farmers will also remove dry hinds from the equations when looking at reproductive performance, thus underestimating the true problem. It is equally as hard to investigate the cause of these reproductive losses due to the careful nature with which hinds need to be handled around calving; unlike sheep & cattle, deer need to be left alone.

So what are the potential causes of poor reproductive performance on your farm?

- **Ovulation Failure**
  This is a rare occurrence in adult hinds provided they are in reasonable condition (BCS2.5+), however it is a significant problem in first-calvers (R2 hinds). It has been shown that ovulation failure is the greatest cause of reproductive failure in this age-group, with 5-30% of hinds failing to reach puberty. A vet clinic in the North Island reported average scanning rates of 90% for the mixed-age hinds and just 59% for the R2 hinds.
- **Body Mass/Body Condition Score**
  Body condition is a significant factor for the reproductive success of R2 hinds (BCS2.5+), however genetic improvements have meant that absolute body weight is no longer the most accurate indicator. Generous feed allowances for R2 hinds will maximise growth rates and the chance of reproductive success.
- **Lactation**
  Lactation itself does not directly affect normal reproductive cycling of hinds, however if lactation results in excessive loss of body condition (below BCS2.0), they may become anoestrus. Drought conditions will increase the likelihood of this occurring, so it is important to ensure that sufficient supplementary feed is provided in these conditions.
- **Mating Systems/Management**
  Social groupings can have an impact on reproductive success; where possible, avoid mixing younger and older hinds as stress can play a significant role in reducing performance of younger animals.
- **Fetal loss**
  Fetal loss is very hard to assess as aborted fetuses and dead calves are often eaten by the hinds or scavenged by other animals, but losses of up to 10-16% have been recorded in R2 hinds on Southland farms in recent years. Multiple scanning is the only way to accurately assess the degree of fetal wastage on farms and would be a worthwhile exercise to investigate where the reproductive losses are occurring. The cause of such losses is varied, but some investigations have shown that Toxoplasmosis may be a causative factor. Further investigation is required to assess the significance of Toxoplasmosis in Deer, but we will keep you informed of the latest news as it appears.

There are many more animal health-related causes of reproductive wastage including trace element deficiencies, injuries, reproductive abnormalities and infection that may affect both hinds and stags, but the first step to improving the reproductive performance on your farm is to identify the cause. If you would like some help or advice regarding the reproductive performance on your farm, please contact the clinic and speak with one of our vets.

REMINDERS

Sheep

- FEC Lambs and drench if required; consider Faecal Egg Count Resistance Test to assess resistance levels
- FEC Ewes
- Mineral Check if signs of illthrift
- Mix replacement stock with mixed-age Ewes at least 2 months pre-mating (HSD risk)
- Vaccinate Two-tooths (and/or hoggets) if mating them with Toxovax and *Campyvax*[4]*/Campylovexin*
- Consider *Androvax/Ovastim* vaccination
- Iodine supplementation pre-mating with Flexidine or Potassium Iodide drench
- Palpate +/- blood test rams and vaccinate dogs
- Teasers in 14-17 days prior to joining
- 5-in-1 vaccinate and FEC Hoggets

Cattle

- 7-in-1 booster vaccination for calves
- Drench calves for Gastrointestinal & Lung worm - interval depends on drench used (save endectocides for later); weaning drench for beef calves
- BVD Vaccinate calves with *Bovilis*
- Pregnancy Test cows 6 weeks after the end of AB and/or 6 weeks after the end of the bull mating; mark/tag any empty or late cows.
- Arrange Dry Cow Consultation
- Pre-Winter mineral check (Liver Biopsy or Blood sample)
- Clostridial +/- Lepto vaccinate beef calves at weaning

Deer

- Sort Dry hinds for culling
- Consider Mineral check through the works
- Pre-mating copper supplementation if required +/- selenium if indicated
- Vaccinate fawns with *Yersiniavax* (first dose) and drench for Lungworm
- Certified Velveters required to return all unused drugs with completed and signed record book

Best Wishes from the vets: S Giles Gill BVM&S, Louise F Ingram BVMS (Hons) MACVSc, Jen E Gordon MA VetMB, Rosemary R Gill BVM&S, Teressa A Skevington BVSc, Ashleigh S Braithwaite DVM, Aileen Scott BVMS, Julia E Nuttall BVSc, Ruby A Davidson BVetMed, Jennifer Campbell BVMS

BESTPRACTICE

Otautau Vets Ltd
71 Main Street, PO Box 77
Otautau, Southland, New Zealand
Phone: 03 225 8134
Fax: 03 225 8170

info@otautauvets.co.nz
www.otautauvets.co.nz