



NSVS LTD

VetTIMES

Riversdale, 105 Berwick Street, Ph 03 202 5636, Fax 03 202 5333
 Te Anau, 133 Govan Drive, Ph 03 249 7039, Fax 03 249 7034
 Lumsden, Flora Road, Ph/Fax 03 248 7199
 Mossburn, Devon Street, Ph/Fax 03 248 6053

Sheep Reminders

- Monitor B12 levels
- FEC lambs and ewes
- Vaccinate against *Campylobacter* and *Toxoplasma*
- Review winter feed budget
- Exercise rams, check feet and palpate

Inside this issue:

Situation comment and staff news	1
Trace element supplementation and liver biopsies	2
Dairy— Winter feeding	3
Dog and Cat Dentals	4
Horses and Worms	5
Ringworm	5
Dry cow planning	6
Yersinia in Deer	7
Leptospirosis in Deer	7
The importance of Ovulation rates	8

NSVS LTD

March 2008

Situation Comment

The dry has obviously affected some people more than others. Supplementary feed will be in short supply, with many people only managing to save 1/6 of last years supplement. Making sure that body condition scores are maintained will be a challenge. Farm covers are at very low levels and grass quality is also very poor.

Early scanning results however have been reasonably positive with an 8/9 week in calf rate of 15% being the average. Also cow condition has been held as milk production has been poor. Most people are averaging a 10—15% drop in milk solid production for February compared to last season.

Cell counts are pretty high across the board due mainly to the milk volume issues. Herd testing gives valuable information about which cows to dry off soon.

The sheep side of things is still pretty depressing. However if you want to buy sheep and have feed you'll never have a better opportunity.

It has been a good velvetting season, with prices positive and yields up.

We have seen a few parvovirus cases in the clinic recently, please ensure that young pups who are most vulnerable to this deadly disease are protected by vaccination. Also be aware of heat stroke on hot days, even now it can be a problem especially if water intakes have not been adequate. There has also been an outbreak of Kennel Cough in Invercargill. Pets going into kennels or to shows should also be vaccinated. Vaccinations may not completely prevent the disease but it does lessen the severity.

STAFF NEWS

We farewellled Nola Hall from Riversdale on the 15th January after almost 5 years of vet nursing. She will be missed but has promised to visit. She has been keeping in touch and is enjoying being back in Taranaki with family and friends. Welcome to Jayne Grant who has joined us as our new vet nurse. Jayne has recently graduated with a certificate in Veterinary Nursing and brings her practical experience from growing up on a farm in Northern Southland.

Kelly in Te Anau will be on maternity leave starting mid March. We wish her and Ross all the very best for the safe arrival of their baby. Janelle Avery has joined the team in Te Anau to fill Kelly's shoes while she is away. Janelle has already worked in Lumsden for us and with Kelly's tutelage this should be a smooth transition.

We are fortunate to have two recently graduated veterinarians join us in Riversdale. Jenny McKercher started with us just before Christmas and may already be familiar to some of you if you have been into the clinic or had Jenny on farm. With Megan Reidie starting the beginning of March that brings us to seven Vets working out of Riversdale.

Jill Sloan in Te Anau came off second best after a rangle with a velvetting saw and will be off work for a few more weeks. Jill is keen to get back to work as soon as possible but in the mean time Nigel is doing a great job holding the fort and when possible the Vets in Riversdale are helping so hopefully there is not too much disruption to our Te Anau clients. Your patience is much appreciated.

Paul and Maree Langford are the proud new grandparents to Ava Maree. Congratulations to all the family from all of us at NSVS Ltd.

TRACE ELEMENT SUPPLEMENTATION AND LIVER BIOPSIES

Inadequate essential trace element intake can result in

1. Reduced milk production
2. Increased disease (as a result of poorer immunity)
3. Decreased reproductive performance

The important trace elements in NZ for dairy stock are selenium, copper, cobalt, iodine and zinc.

Selenium

Needed for disease resistance, getting rid of cleanings after calving, milk production.

Northern southland is in general quite low in selenium.

Need 5mg/cow/day.

Oral dosing, injections, fertilizer

Copper

Needed for growth and production, health and immunity, reproduction.

Uptake affected by high molybdenum, sulphur and iron levels especially in winter and spring.

Need 250mg/cow/day

Oral dosing, injections, bullets

Cobalt

Needed for Vit B12 and B1 production, energy metabolism in the rumen, fibre digestion.

Pasture is normally low in cobalt.

Need 10mg/cow/day

Oral dosing, fertilizer, injections.

Iodine

Needed for energy metabolism, protein synthesis, reproduction and heat detection.

It is leached during wet weather esp. in winter and spring. Iodine requirements increase during cold weather. Iodine uptake from crop is negligible.

Need 50-60mg iodine daily.

Oral dosing.

Zinc

Needed for growth and production, reproduction, hoof strength, and immune system.

Facial eczema is not a problem in Northern Southland.

Excess zinc can increase risk of milk fever and copper deficiency and depress appetite.

Need max. 750 mg/cow/day.

Oral dosing, footbath.

Magnesium

Begin supplementing with Magnesium two to three weeks before calving and continue until early November when the grass is more mature and the weather is better.

Need 20gm/cow/day

E.g. 60gm MagC via dosatron plus 50gms Mag Oxide gives 20gm magnesium

Calcium

Colostrums need lime flour 50gms/cow/day

How do we test for these elements?

The simplest way to test is by blood testing a number of animals in whatever group is to be tested. Usually 8-10 animals are needed to give an overall representation of what is going on in that particular group.

The other method is by testing the liver for some of these elements.

Liver copper concentration is recommended over blood sampling when we are trying to establish a risk of deficiency or to check on reserves. This is particularly important for in-calf dairy cows entering winter. The liver acts as the storage reserve for copper however adequate blood levels can be obtained even where storage reserves are quite low.

Liver biopsy is recommended over post slaughter collection as the cull cows may not be representative of the herd. In addition the same cows can be sampled from year to year providing valuable trend information.

Early winter is the best time to assess liver copper stores as it gives time to supplement before late pregnancy and lactation.

As gestation progresses the foetal demand for copper increases which puts a drain on copper reserves. In addition iron and molybdenum interfere with copper uptake. Animals on crop over winter are ingesting very little copper normally but also tend to have interference from these other elements.

The biopsy procedure itself is a relatively quick and simple procedure, with most of the time involved in the procedure is ensuring the site for the biopsy is surgically prepared. The procedure involves inserting a small trochar from the right hand side of the animal into the liver which removes a small core of liver that can be tested at the lab. Post biopsy health complications have not been reported.

We can tailor testing done on farms to suit individual requirements and in general this would comprise a mix of blood testing and liver biopsy work. The results of this testing will then determine what supplementation, if any, needs to take place.

Feel free to talk to one of the vets about what your requirements may be this year.

Remember it is only one part of the strategy to get trace element status right – fertiliser programmes and soil and herbage analysis are also very important. Ultimately however it is what is in the cow that counts!

EARLY WINTER

IS THE

BEST TIME

TO

ASSESS LIVER

COPPER

STORES

Winter Feeding

The transition from milking cow to dry cow is a time of stress for your herd. It entails a complete change of routine and often a complete change in diet and home.

Ideally cows should be dried off in a condition score of a least 5. While this year has provided enough challenges to make this almost impossible it should still be the aim. This provides a layer of fat beneath the skin that can help to protect against the cold and act as a buffer if the cow faces temporary check in nutrition. Achieving this condition score by drying off has positive benefits for production and reproduction in the next season.

Swedes, chow and kale are commonly used as winter feed and provide rapidly fermentable energy which animals take time to adapt to. A gradual introduction to these crops, maintaining one part of the ration throughout and access to effective fibre are essential to prevent stock and economic losses from lactic acidosis. Putting hungry stock onto a fresh break of crop should be avoided. Effective fibre can be provided as hay, silage, balage or straw, provided the chop length is at least 5-10 cm long. Finely chopped silage/balage does not provide effective fibre to the rumen.

Winter rations need to meet the nutritional requirements of the cow and of a rapidly growing calf. The calf is effectively a parasite whose needs override those of the cow. The calf will continue to grow even if the cow is being underfed and while underfeeding cows will result in the birth of smaller calves the ratio between calf weight and cow weight will be smaller. As a result, underfeeding pregnant cows can result in more calving difficulties, not less.

Calves, as well as providing a draw on nutrients for the cow, occupy a significant amount of space. This reduces the amount of feed cows can physically eat, and their stomachs may reduce in size. Fully feeding pregnant cows will minimise this problem and providing more energy dense rations can help to offset the restricted intake.

As cows approach calving the transition from dry cow to springer to calving to milking is a severe strain on the animal. Having a solid well set up cow who has been fully fed and is in good condition helps to ease the process.

Remember

1. Don't let cows lose condition at drying off.
2. Slow transition onto winter crops.
3. Under feeding cows and especially heifers, before calving will not stop calving problems.
4. Account for wastage when calculating the amount of feed to offer.
5. What happens this winter can affect the production two seasons from now.

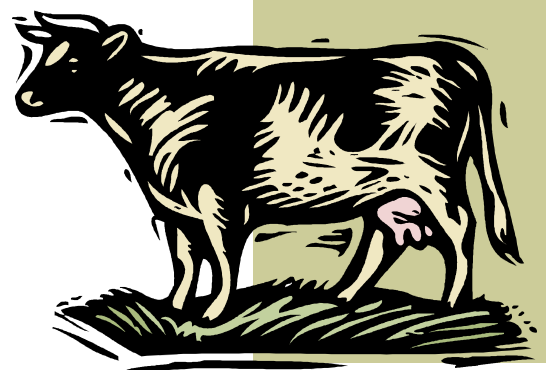
M Baer B.V.S.c

Cattle Reminders

- *Pregnancy test*
- *Wean, mark and drench beef calves.*
- *Cows & Yearlings– Lepto vaccination.*
- *Lepto booster to calves.*
- *Review mastitis control and plan dry cow therapy.*
- *Copper and selenium status – treat pre-winter if necessary.*

Pet Reminders

- *Flea treatment and prevention*
- *Check teeth*
- *Clip nails*
- *Worm cats and dogs*
- *De-sex cats*
- *Revaccinate cats prior to winter*



DOG AND CAT DENTALS

A large proportion of our dogs and cats have dental disease. The most common type of problem is periodontal disease which is thought to be the most common infectious disease in small animal practice today. The two main forms of periodontal disease are gingivitis (inflammation of the gums) which is reversible, and periodontitis (inflammation of the supporting structures of the teeth) which causes irreversible destruction of the gums, ligaments and underlying bone. Secondary factors can also contribute to the incidence of periodontitis. Overcrowding of teeth, persistent baby teeth, systemic illnesses such as kidney failure or diabetes and even dogs with lots of hair on their muzzle (eg poodles) have an increased chance of developing the disease.

Plaque accumulation sets off the process and leads to gingivitis. Plaque is primarily made up of aerobic bacteria which attach to the tooth surface and can only be removed by mechanical means. Saliva mineralises plaque to produce calculus (tartar). Calculus provides a roughened surface for plaque to attach to further exacerbating the process. Gingivitis is characterised by redness, swelling, bleeding, pain and bad breath. When the gums get inflamed they swell and lift away from the tooth surface. Once bacteria establish under the gums anaerobic bacteria and their toxins initiate periodontitis which leads to bone destruction, loose teeth and eventually tooth loss. Periodontitis can lead to a systemic infection potentially causing liver or kidney disease.

Signs of Oral/ Dental Disease

- Bad breath
- Broken teeth
- Excessive drooling
- Reluctance to eat or chew toys
- Chewing with one side of the mouth
- Rubbing the muzzle/mouth
- Bleeding
- Loss of symmetry of the muzzle/jaw
- Changes in behaviour
- Chronic eye infections
- Inability to open or close the mouth
- Chronic sneezing
- Discoloured teeth
- Abnormal discharge from nose
- A mass/growth in the mouth



The most important thing that you can do as a pet owner is pick up signs of disease early so that teeth don't reach the periodontitis stage which is irreversible. The Riversdale vet clinic has recently purchased a new ultrasonic dental machine which can be used to scale and polish the teeth and remove broken teeth. The Te Anau clinic also has a similar dental machine. The most important step is to remove the plaque from teeth and from under the gums with the scaler. The teeth are then polished smooth to help prevent plaque reattachment.

Homecare

Once your pet has had a dental there are a number of things you can do to help keep plaque off the teeth. You may want to consider toothbrushing if you have a compliant pet. Some pets will quickly adapt to getting their teeth brushed every night. You may also want to consider diet: chicken wings or necks are good for cats and lamb or veal briskets are good for dogs. Never feed cooked bones to your animals and try to stay away from bigger bones like the femur because they can actually cause teeth to break. There are also a few commercial diets available now which help reduce plaque buildup (Hills t/d and Eukanuba).

J McKercher
B.V.S.c B.S.c

HORSES AND WORMS

This is a reminder about the importance of controlling worm infestation in horses. This is particularly important in foals and youngsters as they are much more vulnerable to damage by parasites. There are more than 70 species of horse internal parasites in New Zealand and worms are still a common cause of problems including colic, diarrhoea, weight loss, poor coat and poor performance. Worms can be affecting horses even before they show these obvious signs.

How do you tell if your horse has worms? We can do faecal egg counts at the clinic. This just needs a sample of fresh faeces, it gives us a lot of information but doesn't pick up if horses have tapeworms or if they have any encysted (hibernating) small redworms.

How do they get worms? Worm eggs are passed in dung. The eggs can survive weeks to months depending on conditions. The eggs hatch into larvae which go through a series of stages until they become able to re-infest the horse. The horse then picks these up when it eats the pasture, contaminated feed or by licking larvae present on other horses coats. Inside the horse the larvae mature into adult worms and start producing eggs. The cycle then starts all over again.

What damage do worms do? Different worms live in different places inside the body and cause different damage. Some (large strongyles, large redworms) migrate along major arteries during their lifecycle and cause damage to these. Other worms (small strongyles, small redworms) burrow into the bowel lining and hibernate here causing damage as they re-emerge particularly if a lot re-emerge together. Tapeworms attach by suction to the intestinal wall and can cause inflammation and colic.

How should we control them? Different situations require different control strategies. It is best to talk to us at the vets to design the best plan for your own situation. This includes developing a plan to slow development of resistance. It is important to check the label on the wormer you use to see which family of drench it contains.

If lots of horses are kept on a relatively smaller area (intensive situation) then they will need more drenches, regular drenching every 6-12 weeks (depending on the drench used) throughout the summer and probably slightly less often through the winter ensuring that the drench used will kill tapeworm in the Spring and Au-

tumn treatments.

In less intensive situations other control methods can be very beneficial in reducing worm burdens. Removing dung twice a week will significantly reduce the worm burden on the pasture. Cross grazing with sheep and cattle is also very important as these will eat horse worm larvae but not become infested by them and so break the cycle. Ideally you should wait 3 weeks after the horses have been grazing before putting the cattle or sheep out (this allows time for the eggs to hatch). Again ideally they should graze the pasture for at least a month to clear up as much as possible. Faecal egg counts (FECs) on the horses faeces should be performed and the horses only drenched when they need to be. This should be followed by FECs 7-10 days post drenching to ensure the drench was effective.

Please talk to us if you have any questions about the best thing to do in your individual case.

What about in a breeding situation? Broodmares should be drenched 2-3 weeks before foaling (ensure the drench is safe for pregnant mares) as one type of worm (strongyloids) can pass to the foal in the milk or off the mare's udder.

The foal should then be drenched at 8-10 weeks of age and then every 6-8 weeks. The foal should be weaned onto clean pasture. Yearlings should definitely be drenched in the Spring (September/October) and late Summer/early Autumn (February/March). FECs should be taken to monitor levels in between and they should be drenched if necessary.

Resistance. Horse worms are developing resistance to drenches just as with the other species. It is getting more important to use other management strategies as well as drenching. FECs are an important tool to ensure we drench only when needed and that the drench works when we do drench. We use FECs a lot in sheep and should probably be doing so more with horses to try and slow the development of resistance. Please ring the clinic if you have any questions about horses and worms.

M Dicken M.A vet M.B. M.R.C.V.S.



Ringworm

Ringworm is the result of a fungal infection of the skin, hair or nails. The ease with which ringworm passes from animal to animal depends on the species of fungus responsible. As with any condition infection does not always result in disease, it depends on the environment, other normal bacteria on the skin and the immune system. Young animals are more likely to show signs of ringworm. *Microsporum canis* is easily passed between animals and infection without disease is not uncommon (the first signs in cats may be when the owners develop ringworm). Ringworm is not usually itchy, al-

though it can be. Kittens typically have crusty or scaly circular areas of hair loss, often on the face, ears or the front legs. In adult cats the affected areas may be spread over the body and there may be circular lesions. Dogs display a great variation in the type of ringworm lesions they develop. They range from scaly hair loss to red raised lumps. Sometimes the whole body is affected. Diagnosis of ringworm is often done using ultraviolet light, the fungi fluoresce a yellow green colour. Skin scrapings and fungal culture may also be of use. Treatment may be with topical ointments but in generalised cases and in

cats prolonged treatment with antifungal tablets may be required. Antifungal shampoos are also useful in these cases. Prevention of reinfection or spreading involves removal of infection from the environment. Disinfection of kennels and bedding and vacuuming of carpets and furniture are required on at least once per week. Care needs to be taken to prevent spread to people so strict hygiene is required.

M Baer B.V.S.c

DRY COW PLANNING

Drying off your herd is a busy time of the year that can creep up on you, especially this year with the possibility of many cows being dried off earlier due to the feed shortage. There are many things to think about before drying off to ensure you set yourself up well for next season. Planning your approach now can better enable you to deal with drying off time.

When to dry off?

Factors affecting your decision may include:

Cow Condition

- Dry off at a BCS close to that at which you would like them at calving (BCS 5)
- It takes an extra 40 MJME on top of maintenance to gain one kg live-weight in the dry period compared with 32 MJME during mid lactation.

Milk Production

- Dry off low yield cows (<5 Litres/day) and cows with high SCC (> 500 000)
- Cows producing < 10 litres/d are more likely to develop high cell counts
- If averaging <10 litres/c/d don't go to once-a-day (if not already) before drying off.
- If producing more reduce feed intake (not water intake). See later.

Feed availability

- Reduce the feed demand curve by drying off some or all of the cows earlier.
- Money lost in milk production may be saved in the reduced need for extra supplements now or later on
- Cows under nutritional stress may have increased SCC.

Staff availability and Preparation

- Have plenty of trained hands on deck
- Have all gear available (Dry Cow tubes, plenty of wipes, gloves etc)
- Be well rested, prepared (and allowed) to take time in order to do the job properly.
- Allow time for breaks, concentration and standards may fall

Cow Preparation

- BCS 5
- In high producing herds restrict feed for 5-7 days as a rough guide reducing feed by 40% in the last 24 hours before drying off, and for the first 4-5 days of the dry period
- Use hay/high fibre feed to help maintain gut fill
- Avoid once a day milking if possible as this will increase your BTSCC, or Remove those cows with known high SCC before going once-a-day.
- Consider a parasite drench, a small but significant increase in the milk production is seen in cattle drenched at dry off, this increase being larger in higher producing cattle
- Use a product effective on your property, using a combination drench if you are unsure, check if it is effective against lung worm, and always check WHT
- Check their mineral and trace element (TE) status.
- Liver biopsies
- Remember you may not have access to a dosatron over winter

Dry Cow Consult

By law, you will be required to have a consultation with a vet who will prescribe the best Dry Cow product to meet your needs. As well as providing the goods, this consult will:

Explain why you need to use Dry Cow

Ensure you get the best product to meet your needs for each group of cows

Assist you in making the decision of when and how to dry off

Explain how to go about the actual day (or several days) of 'drying off'

Explain how to correctly administer Dry Cow product. Ideally staff will be present

Inform on how to eliminate the risk of Inhibitory Substance grading at first pick up

Provide advice on cow care and mastitis prevention/treatment after drying off

A great opportunity to discuss any issues you have/had with mastitis over the season

Remember to check cows regularly throughout the dry period for cases of mastitis, ideally weekly for three weeks. Remember the dry period is a good time to fully service milking machines and replace liners, service the teat sprayer, enrol for herd testing, sort out your ear tag system and to think about training heifers through the shed. Enjoy!

Rochelle Smith
BVSc



Deer Reminders:

- **Weaners-treat for internal parasites**
- **Put stags out**
- **Yersiniavax**
- **Certified de-velvetters-return drugs book**
- **Check copper & selenium status and treat if necessary**

LEPTOSPIROSIS IN DEER

Leptospire bacteria are capable of infecting all mammals, including people. They are also capable of free-living in watery environments, which is why the disease can be acquired from watercourses or standing water and is partly why stock on so many farms get exposure to leptospire.

There are many kinds of leptospire and each mammal species can harbour one or two types without ever showing signs of disease. Thus such 'maintenance hosts' can carry and spread disease unknowingly, by shedding leptospire in their urine and in reproductive organ discharges such as the lochia associated with calving or fawning. A serious health problem usually only arises when such leptospire infect a species of mammal that are not usually a host to them. In this case, the ensuing disease is most often either acutely fatal or permanently debilitating through the irreversible kidney damage that the infection causes – and there are other manifestations of clinical leptospirosis such as redwater. This is why leptospirosis is taken as such a serious occupational health issue and most at risk are those who often come into contact with urine splash or lochia. Hence beef cattle farmers (through assisted calvings), dairy workers (through urine splash and assisted calvings), abattoir workers (through urine splash – including cattle and deer), AI technicians (through urine splash) and veterinarians (through assisted calvings and urine splash) face a small to moderate risk of exposure and the albeit particularly serious health problems – even fatality – that can ensue from contracting leptospirosis.

Like cattle, deer are maintenance hosts for a type of leptospire known as hardjobovis. Studies in the North Island demonstrate quite how ubiquitous it is (present on the majority of farms) and it is likely that its widespread nature is a pattern shared in the South Island. Local serological sampling – looking for 'footprints' of leptospirosis in the animals which it infects – reveal that it is both present and ubiquitous locally in both cattle and deer. Like cattle, it is unlikely that hardjobovis has any effect on the productive or reproductive performance of deer, but infection with strains such as 'pomona' or 'copenhagi' – those usually found in pigs and rats – can lead to serious disease in both deer and cattle. In humans, infection with any of the strains can be particularly serious.

An important way to help reduce human exposure to leptospire is through vaccination of stock (both deer and cattle) as early in life as possible – so as to 'beat' the colonisation of the kidneys by the 'wild' varieties of leptospire. Vaccination may serve little – if any – benefit in terms of production gains, but it could potentially save people's lives. Employers should pay particular attention to the occupational health implications of leptospirosis, and meat workers in particular would be at less risk of contracting leptospirosis if widespread vaccination of stock – including deer – were practised.

N Dougherty B.V.S.c M.R.C.V.S

Yersinia in Deer

As we are experiencing a drier summer than usual, with a great shortage of grass and winter feed. Here in the basin and Northern Southland, deer farmers minds are faced with the decision of when to wean. Many may be electing to wean earlier than usual to terminate the hinds lactation and thus improve body condition and fertility before the rut. But what about the fawns? Weaning is a stressful time for fawns, often combined with transportation, mixing of groups and changes in nutrition. Not to mention the challenges of infections such as Yersinia, an infection that is undoubtedly one of the most serious and still one of the most common infections of young growing deer.

Yersiniosis is caused by a bacterium called *Yersinia pseudotuberculosis* which can be carried by wildlife as well as domestic animals. The bacteria is widespread in the environment surviving well in soil, water and pasture in the winter months making it likely that fawns will be exposed to it. Here we know the disease is more prevalent in the autumn and winter and its onset can be triggered when fawns are exposed to stressors. Introducing fawns to supplementary food now, while with the hind will help to minimise nutritional stress post weaning, improving fat reserves on both fawn and hind. Fawns can lose fat reserves very quickly in the autumn in adverse weather. Especially with a thinner coat that does not provide enough insulation, fawns quickly become chilled. Food intake is usually less during bad weather, reducing the intestinal movements which can allow the Yersinia organism to multiply excessively, producing toxins which damage the intestinal wall. This leads to loss of body fluids, bleeding into the intestines, dehydration and shock, rapidly and frequently leading to death of affected animals. Acute cases may be found dead without any obvious clinical signs.

Many farmers use vaccination as a tool to provide herd immunity. 2 vaccinations are required 3-6 weeks apart. Vaccination programmes can encompass weaning pre or post rut. Vaccination has been shown to reduce the incidence of clinical disease by at least 66%, probably more and reduces the mortality rate by at least 60%. Clearly vaccination is worthwhile, though not giving complete protection. Building up immunity following vaccination is complex. Among the factors that can interfere with it are stress and the degree of challenge that the animal faces.

Farmers should consider vaccination of fawns as part of their risk management strategy. It will reduce the risk of an outbreak of yersiniosis and in the case of an outbreak occurring in vaccinated deer, the risk of clinical disease and mortalities will be significantly reduced. Speak to your local veterinary representative to discuss vaccination strategies for your particular situation.

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

THE IMPORTANCE OF OVULATION RATES

The ovulation rate at mating determines the maximum number of lambs that can be produced. High ovulation rates are the key to high lambing percentages. 60 to 70% of the variation between flocks can be accounted for in ovulation rates. The most critical time in the reproductive cycle of the ewe is the 3 – 6 weeks before mating and over the mating period when ovulation rate will be determined. It may be determined by a number of factors, but one of the most important is bodyweight and the nutrition of the ewe at mating.

To achieve good ovulation rates, it is important to reach good mating weights and to have the ewes on a rising plane of nutrition.

Heavier ewes have a higher percentage of multiple ovulations. In general a rise of 1.5 – 2 % ovulation rate per 1kg rise in bodyweight is expected. To gain a flushing response a minimum period of 3 weeks of high level feeding prior to tupping is required. This will give a three week carry over period during which time most of the ewes should be mated.

In the drought condition of 2008 it is going to be hard to adequately feed your ewes prior to and during tupping and the choice of supplement can have a huge effect on future production.

Metabolisable Energy (ME) are usually the best basis for assessing the quality of supplementary feeds. Specialised forage crops have MEs of 12 – 13 MJ ME per kg of dry matter. Crops such as kale and turnips can be used for flushing so long as feed levels of these crops are not too high and they are grazed during the growing phase. Grains such as barley have a MEs of 12 – 13.5 ME/kg DM and can be used to supplement ewes but gradual introduction to the grain is essential to avoid acidosis. 500gms of barley daily will provide about 50% maintenance for a ewe.

Pasture silage is cheaper than grain and usually has a ME ranging from 8.5 – 10.5 ME/kg DM and there are no acidosis problems. With good quality wilted silage (over 30% dry matter) fed ad lib up to 1 – 1.5 kg DM per ewe per day can be achieved and this will be adequate with some pasture as well.

Flushing and mating ewes on lucerne can depress ovulation between 10 – 40%. Coumestrol is the oestrogenic compound in lucerne that upsets ovulation. It is recommended that ewes be removed from lucerne at least 14 days prior to mating but can be returned after tupping is completed.

Phyto-oestrogens in subterranean clovers have a marked affect on the reproduction of sheep. In West Australia these effects are well known but the effects in NZ are somewhat uncertain.

A certain amount of embryonic loss is inevitable in disposing of unfit genetic material. The amount of embryonic loss varies considerably between farms, indicating the level of nutrition in this period plays a part in the number of lambs born. Other factors that influence embryonic loss include, the age of the ewe, genotype, selenium deficiency, stress and infectious causes eg.

Toxoplasmosis, Campylobacter and Hairy Shakers Disease.

Hypocalcaemia in ewes post drought is sudden and can occur within 12 – 18 hours of food deprivation usually prior to or during pre-lamb crutching. Treatment can be successful if given early enough but many ewes may relapse and die. The condition usually occurs in older ewes and can occur after a drought because calcium demands in late pregnancy is high, under feeding does not allow bone marrow to be fully replaced. Grains are low in calcium and so is rapidly grown spring pasture.

This year preventative measures should be pre-lamb crutching at least one month before lambing and if vaccination efficiency might be compromised a second quick muster close to lambing should be considered for that procedure. Avoid sudden changes to feed quality and quantity and build up calcium levels with the use of lime fertilisers on wintering paddocks.

P Langford B.V.S.c

*This newsletter is available to members and clients of NSVS Ltd.
Information is correct at time of print, but please seek veterinary advice for further information and/or clarification.*