NSVS LTD

VetTIMES

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Pet Reminders

- ***Flea treatment & prevention***
- ***Check teeth and clip nails***
- ***Check for barley grass***
- ***Worm cats and dogs***

Inside this issue:

Situation Comment

We have just had some rain, after a dry few months so should get some good growth before winter.

Lamb and Venison prices are good and looking to continue to be strong. The recent rain may cause an increase in worm burdens in young stock so monitoring Fec will be important.

Milk powder prices have jumped in the last few weeks, so despite some possible cash flow problems, dairy may be beginning to recover.

Pregnancy testing results so far are comparable with previous years. The shift in focus from empty rates to six week in calf rates as the indicator of reproductive performance, in line with In-Calf recommendations, will make comparisons more meaningful in the future.

Staff News

We are very pleased to have welcomed four people to NSVS since the last newsletter. Congratulations to Rochelle Smith on the birth of Renee Francis Pomare in February. In Te Anau Nicola Hughes has started as a vet nurse, part time at the moment but becoming full time soon. Nicola is a qualified vet nurse and joins us from Real Journeys . Two new vets have joined the team in Riversdale. Fran Knighton from Hamilton joined us in January and has settled very quickly. Corrisa Miller has improved the IQ of two countries to quote Muldoon, having moved from Brisbane. All four are welcome additions to our team.

National BTSCC Trends

SCC trends are increasing year on year and have been for at least the past 4 years. Up until Nov/Dec 2008, both Fonterra and LIC SCC data indicated a 7% increase (YTD) on the previous season, equating to an average Cow SCC increase of approximately 17,000/ml. Interestingly, individual cow SCC increased on average by around 6% for the 2007/08 season, when the long drought affected many regions.
Contributing factors to the increasing SCC are likely to be:

- Increased payout at the end of 2007/08, causing farmers to continue milking as many cows as possible for as long as possible
- Expanding national herd and associated ageing of the national herd. Older cows are more at risk of higher SCC and having chronic infections with *Staph. aureus.*

Poor/nil quarantining of "brought-in" older cows, which spreads new pathogens to the rest of the herd
It has also been suggested that the incidence of **clinical mastitis** on farms has increased over the past few years. This is more difficult to estimate with only minimal data collected nationally. The proportion of clinical cases caused by pathogens on a year by year basis is also unknown. Pathogen type affects likelihood of cure by antibiotics and subsequent spread of infection to other herd mates. We know however, that older cows tend to be at a higher risk of developing clinical mastitis and that clinical cure rates tend to decline as cows age. Therefore the ageing structure of the national herd is likely to be creating more situations where the farmer says that "the drugs don't work" since more older cows are being treated for mastitis compared to a few years ago.

NMAC

Feline Infectious Peritonitis

FIP is a viral disease of cats caused by the feline coronavirus. Most strains do not cause disease. In 5-10% of cats the infection progresses into FIP. With the assistance of antibodies that are supposed to protect the cat, white blood cells are infected with virus, and these cells then transport the virus throughout the body. An intense inflammatory reaction occurs around these vessels, often in the abdomen, kidney or brain. Once a cat develops signs, the disease is progressive and almost always fatal.

Risk factors for developing FIP

Cats with weak immune systems are most likely to develop the disease, therefore kittens and older cats are more at risk. Most cats that develop FIP are under 2 years, but cats of any age can develop the disease.

FIP is not highly contagious, because by the time the cat shows signs, only a small amount of virus is being shed. It can be transmitted through cat-to-cat contact and exposure to faeces. The virus can also live in the environment for several weeks. The most common way of transmitting the disease occurs when infected female cats pass the virus to their kittens.

FIP is relatively uncommon in the general population. The disease rate is higher in multiple-cat populations, such as catteries and shelters. It is also more common in certain breeds but research is unclear why.

Symptoms

FIP can develop weeks, months or even years after initial exposure. Symptoms can appear to be sudden since cats have an amazing ability to mask disease until they are very sick. Once symptoms develop there is often increasing severity over several weeks, ending in death.

Non-specific symptoms initially: weight loss, loss of appetite, depression, rough hair coat, fever.

Effusive form: pot-bellied (fluid accumulation in abdomen and chest) which may lead to difficulty breathing.

Diagnosis

No simple diagnostic test. Positive result means only that cat has been exposed to the coronavirus, not necessarily that it has developed FIP.

Treatment

No known cure or effective treatment. FIP is a fatal disease.

Some treatments may induce short-term remissions in a small percentage of cats.

Supportive care: nursing, nutrition, anti-inflammatories, steroids, antibiotics, fluids.

Research is ongoing to find drugs that may slow down the progress of the disease e.g. antiviral drugs.

Protecting your cat

If you have multiple cats, try to keep cats as healthy as possible. Litter boxes should be kept clean and away from food and water dishes. They should be cleaned and disinfected regularly.

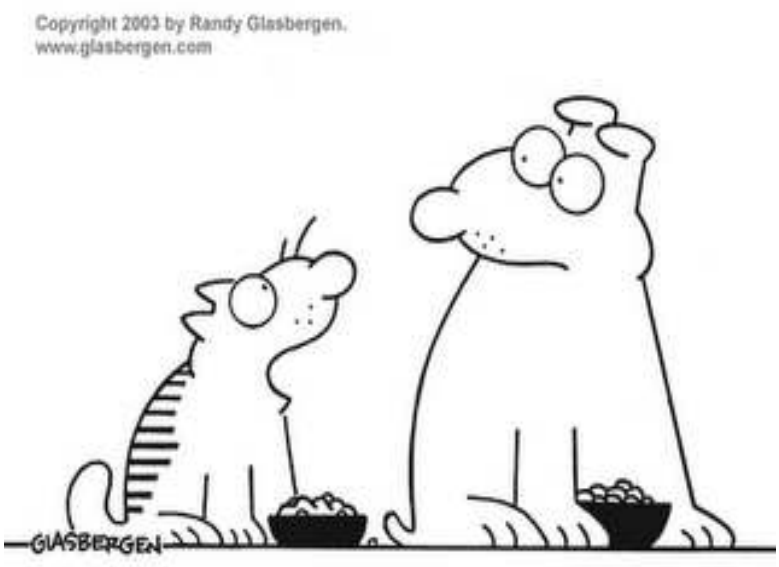
Any cats that get sick should be isolated from other cats as soon as possible.

Prevent overcrowding, keep vaccinations up to date and provide proper nutrition.

J McKerchar BVSc

Deer Reminders:

- ***Weaners-treat for internal parasites***
- ***Put stags out***
- ***Yersiniavax-second injection***
- ***Certified velveters –return drug & book***
- ***Check copper and selenium status & treat if necessary***



"The vet says i need a hobby. I thought eating and sleeping were my hobbies!"

Body Condition Scoring

Body condition scoring is a simple, subjective way of assessing the nutritional status of stock. Because it is subjective, it is often done with the desired end result in mind. This can lead to over estimation (or under estimation) of the average condition score of the herd. The best way to avoid this is to score each animal by referring to a condition scoring guide such as the one published by Dexcel. This will provide a consistent frame of reference and help bring about a reliable result.

Monitoring the average condition score of a herd allows management decisions to be made in a more timely manner. Often, if you are seeing animals on a daily basis only drastic changes will be noticed. The loss of 1 condition score over 1 month equates to the loss of between 30 and 50 kg of body weight. The likelihood of noticing a 500kg cow losing 1kg of weight per day is low but the impact is huge. A cow calving in condition score 4 takes 8-10 days longer to cycle than one calving in condition score 5. She will also produce about 12kg less milk solids. Feeding to maintain condition is cheaper than regaining lost condition.

The range of body condition is also important. When some cattle are in good condition and some are light it may be a good idea to start a skinny mob and preferentially feed them or milk them once a day. This is especially important for first calvers in the lead up to mating.

To ensure that the result is a fair, average the first row and first and last cows from each subsequent row should be excluded. On a rotary the first round should be excluded. Using a technique such as scoring the cow every eighth bale or every fourth odd numbered cow should give a random sample and ensure a reliable result.

Recording the results of condition scoring your herd will provide information that can be used subsequently to help explain problems and importantly, plan for the future.

M Baer BVSC

Fertility Report

Our 6 week in calf rates ranged from 60%-75%. (The 9/10 week in calf rates have averages 16.3%).

With the likely disappearance of inductions in 2010 this gives an idea as to what peoples empty rates will be if the mating period is this short. We have to focus on getting the basics right –in particular cow body condition scores, heat detection practices, bull management and heifer rearing. The Dairy NZ %$$%4 In-Calf resource is a great tool to help in this regard. We have trained In-Calf advisors at Riversdale that can assist in this process of measured herd reproductive performance. With regard to inductions, the conditions of the Code of Practice are still in force for this year. They are not only in place for animal welfare reasons but are also just good practice.

Remember

- Cows between 12 + 6 weeks from due date
- Cows between 3 + 8 years old
- Healthy cows only
- BCS minimum 4.5, maximum 6.5 but ideally 5-6
- Fed as if colostrums
- Magnesium supplement before programme begins
- Easily identifiable cows
- Humane management and disposal of induction calves
- Management plan in partnership with veterinarian

At this stage it looks like final empty rates will average about 10%, however the more important economic driver will be days in milk i.e. the 6 week in calf rate where do you sit???

Free BVD Testing

We are pleased to be able to bring to our dairy farmers the opportunity to have your bulk milk sample tested for BVD antibody levels in association with Pfizer. This gives you an indication as to the background level of BVD in the herd. All that needs to happen is that you let us know your supply number and a bulk milk sample is taken at collection time and sent to the laboratory. The results are then reported back to us. If the sample returns a high reading it is recommended that an antigen test is then performed to check for any virus present. If this additional test needs to be preformed there is a charge for this. I would recommend that all farms should have their status checked twice yearly. Please talk to Morgan at the clinic for any further information.

Morgan Green MVB MRCVS MACVSc(Repro)

General Horse Health Over Winter

Winter is a time when colder weather and less daylight hours means you don't spend as much time with your horse. Here are some things to look out for over those upcoming months.

Feeding is usually the biggest concern for horse owners due to the lack of grass growth and the quality not being as good as in the summer months. Feeding supplementary hay is a necessity plus or minus hard feed depending on the exercise levels and individual requirements of your horse. Older horses in particular can struggle through winter but they can be helped along with feeds like a bran mash, gumnuts or soaked sugar beet. Horses getting worked through winter should have a sweet feed of some kind, or else grains such as oats or barley to give them extra energy so they don't have to draw on their own supplies.

Hoof care is important when it is cold and wet. Horses should have their feet picked out at least a couple of times a week to ensure their condition is ok. Frogs can get soft over the wet months and infection like thrush can get in. Thrush is diagnosed by a black foul-smelling discharge along the grooves of the frog. This is treated by getting your farrier to trim back the frog to expose the area to air as this kills the bug. Anecdotally it is also recommended to use a solution called sugardine which is iodine mixed with table sugar on the area and this can help clear it up. Also check for stones stuck under shoes, seedy toe and any cracks in the hoof wall.

Mud fever is another problem that affects many horses over the winter months. Prevention of mud fever is a key factor but unfortunately it can occur in all conditions. Ensuring your horse is not standing in mud up to its knees all day is a must. Fencing off gateways is important and rotating paddocks so they do not get pugged also helps. Mud fever is caused by a bacteria called Dermatophilus congolensis. It appears as scabs over the pastern and fetlock areas and white socks seem to be more susceptible. Treatment for this involves picking the scabs off, allowing the air to get in and putting on an ointment such as bioderm or a lotion that we make up here at the clinic. There are several other remedies that can help mud fever and it often is a situation of whatever has worked for you in the past.

Skin conditions can become an issue in winter, particularly rain scald for horses that do not wear covers. Rain scald is caused by the same bug as mud fever but attacks a different area. Itappears as rough, hairless patches over the back and rump area. It is cleaned up easily enough with an iodine wash (Betadine). Lice may also be prevalent in horses that are losing condition or are unhealthy in general. Lice can be seen in the mane and along the spine as small, white dots moving around. Delousing involves using Pestene powder along the mane, spine and tail. It is important that all covers, grooming equipment and saddle blankets are done as well as lice can be spread easily this way. All other horses that are paddocked with the horse should also be done at the same time.

Horses should have their teeth checked at least once a year, particularly leading up to winter. Grazing short grass over winter is unavoidable but it can have detrimental effects on their teeth. Dentals can be done by a vet and it involves sedating the animal, putting a gag on to open up the mouth and rasping any sharp teeth causing the horse problem. Sharp teeth may cause discomfort for the horse during eating and they can also get ulcers on their cheeks if the points are too severe.

Deworming is also another thing to think about coming up to the winter months. Your horse should already be on a regular worming programme but grazing to low levels in winter can increase the number of parasites your horse may ingest. Picking up poo from the paddock is the gold standard for worm control as well as using a drench. Just before winter I would recommend using a combination drench with praziquantel as this cleans up those tapeworms hanging around as well as roundworm and bots.

Everyday things to check for are ensuring access to their water trough is still ok. Often ice needs to be broken on frosty mornings as the horses are not able to break through is sometimes. Check that their covers haven't slipped or aren't rubbing them anywhere. Running your hands down their legs will also give a quick indication of any wounds, heat or swelling. And of course, feed them!

M Reidie BVSc

Cattle Reminders

- ***Pregnancy Test***
- ***Wean, mark, dehorn & drench beef calves***
- ***Lepto herd***
- ***Lepto booster for calves***
- ***Review mastitis control-plan dry cow therapy***
- ***Vaccinate for Salmonella***
- ***Drench cows prior to dry off***
- ***Liver copper, selenium check on cull cows***
- ***Dry off poorer condition cows***

Horse Reminders

- ***Control bot eggs on horse legs***
- ***Vaccinate foals for Salmonellosis, Tetanus & Strangles***
- ***Worming treatment for foals***

Trace Elements

Trace element deficiencies result in illthrifty animals and can contribute to lowered milk production, decreased reproductive performance and increases the likelihood of disease (due to lowered immunity). These elements are required in only small quantities but can have a significant impact on production. In New Zealand, the major trace elements are Cobalt, Iodine, Copper and Selenium. There are a variety of ways to analyse the trace element status of your farm with diagnostic testing performed at appropriate times of the year.

Selenium: As an area, Northern Southland is considered to be reasonably low on Selenium. However, there can be quite a variation in Selenium levels between farms depending on how supplementation has been managed. Pasture levels of selenium are influenced by the rate of pasture growth, pasture species, the amount and type of fertiliser applied and the amount of water applied (rainfall or irrigation). Young stock appear to be most severely affected in late spring and autumn. Blood tests are the easiest way to confirm selenium deficiency. Prevention after diagnosed selenium deficiency is achieved by topdressing, drenching, injectables or controlled release capsules. You may wish to consider using long acting products compared to short acting products.

Copper: Copper deficiency may result from either decreased pasture copper levels or from high levels of other chemical elements that interfere with copper absorption, such as molybdenum, sulphur, iron and zinc. This is most important at times of high soil ingestion such as in winter and spring. The most common clinical sign of copper deficiency in cattle is a loss of pigmentation of the hair coat. Copper deficiency can also decrease body condition, impair reproduction and cause bone fragility. It is important that you choose the appropriate testing method for the particular goal you wish to achieve. Blood tests are ideal for those clinically presenting with signs of deficiency, however, to assess the level of adequacy (to check reserves) of copper stores it is essential that liver biopsies are performed. You may wish to have liver copper levels assessed in those animals sent to slaughter. Bear in mind, it is important that these animals are representative of those left on farm.

Cobalt: Pasture is commonly deficient in cobalt. Cobalt deficiency (or vitamin B12 deficiency) causes a loss of appetite and decreases live weight gain and production. Requirements are greater in sheep and so signs of deficiency will most commonly be seen first in lambs. Liver biopsies or blood tests can be performed to diagnose deficiency.

Iodine: Iodine is required for energy metabolism, protein synthesis and reproduction. The requirement for iodine increases in cold weather and it is also leached from soils in wet weather (especially in winter and spring). Feeding brassicas, such as kale and chou moullier, can have a negative influence iodine uptake and so it is important that an appropriate management scheme is put in place.

F Knighton BVSc BSc

Interesting Facts About Horses

- More than 350 breeds of ponies and horses can be found.
- The height of a horse can be measured with the hand, where each hand equals 4 inches.
- If you want to know how old a horse is, all you need to do is count its teeth.
- A horse is able to drink 10 gallons of water a day.
- Horses use their facial expressions to communicate. Their moods can be gauged with the help of their nostrils, eyes and ears.
- Horses spend more energy lying down.
- The hoof of a horse is like a fingernail: it keeps on growing and needs to be clipped.
- Any kind of mark, which appears on the forehead of a horse, is called a star, irrespective of whether it resembles one!
- Horses usually live for around 20 to 25 years. Some of them can live up to 5 years more.
- In most cases, the foal is born at night, away from danger and prying eyes.
- After being born, it only takes a foal about 1-2 hours to stand up and walk.
- Foals are fully grown by 3-4 years of age.
- A horse has two blind spots: one is located directly in front of them while the other is located directly behind them.

Pig Wounds in Pig Dogs

For those of you or those of your staff who are keen pig hunters, just a few reminding pointers about the management of the wounds that pigs inflict on dogs.

Golden rule number one: For anything other than obviously superficial cuts, there is much more potential for things to heal better and more rapidly if veterinary attention is sought. This is because the assessment of wounds requires a good knowledge of anatomy, of the nature of infections, and of the way in which the body's healing processes work. In many cases, it will work out cheaper and better for the dog to seek veterinary intervention earlier than later.

From an infection management point of view, involvement of body cavities can be potentially life threatening if they are not attended to and sometimes it is even hard for a vet, with all the resources to hand, to identify if such a penetration has in fact been made. Better it is, if there is any doubt, to make that veterinary call. From a complication point of view, penetration of joints should be high up on the list of concerns, as is involvement with the face - salivary glands and eyes can really complicate matters. Again, if wounds are near a joint or involve the face or mouth, better it is that veterinary attention is sought if functionality is to be best preserved.

Golden rule number two: basic first aid is critical. Getting the dog to the vet with as much blood still left in the dog as possible is obviously common sense, but stemming blood loss is the most vital piece of first aid that you will be able to apply and pressure bandaging (not tourniquets) is usually enough to quell all but the most serious or deep of bleeders. Keeping wounds clean as the dog walks back through the bush is also advisable and again, bandaging helps in this regard.

Golden rule number three: Antibiotics - irrespective of the type of antibiotic and especially 'just a spray of purple or a 'puff or terramycin' - are certainly not a guaranteed cure for many of the rips which are seen. Establishing drainage is the absolute key and antibiotics are important to prevent seeding or septicaemic spread of bacteria to places which they really shouldn't be. Festering wounds can effect heart valves, kidneys and vertebral bodies –all of which are vital to general health, and antibiotics are obviously only part of the mainstay of preventing such happenings.

Fourth golden rule: the body really does hates what is known as 'dead space' – that is, big pockets in between tissues, many of which are caused by the actions of those angry tusks. Infections can fester in them and the body will fill them up with seromatous fluid – requiring surgery to painstakingly clean up the seroma-forming lining. Again, the speed of convalescence can be hastened with early rather than late veterinary help.

Prevention, of course, is much cheaper and better than cure and rip collars and other protective body belting is in most cases a good way of protecting animals – especially in the winter months when heat loss isn't such an issue. Best of all, though, is to build up a pack of dogs which bail.
N Dougherty BVSc MRCVS

Dear Abby

Why men should not write to agony columns.

Dear Abby,
I've never written to you before, but I really need your advice on what could be a crucial decision.
I've suspected for some time now that my wife has been cheating on me. The usual signs...Phone rings but if I answer, the caller hangs up.
My wife has been going out with the girls alot recently although when I ask their names she always says "Just some friends from work, you don't know them." I always stay awake to look out for the taxi coming home, but she always walks down the street although I can hear a car driving off, as if she has gotten out of the car round the corner. Why? Maybe she wasn't in a taxi?
I once picked her cellphone up just to see what time it was and she went beserk and screamed that I should never touch her phone again and why was I checking up on her.
Anyway, I have never approached the subject with my wife. I think deep down I just didn't want to know the truth, but last night she went out again and I decided to check on her. I decided I was going to park my motorcycle next to the garage and then hide behind it so I could get a good view of the whole street when she came home.
It was at that moment crouching behind my Harley, that I noticed that the valve covers on my engine seemed to be leaking a little oil. Is this something I can fix myself or should I take it to the dealer?
Thanks
Percy

Yersiniosis in Deer

WITH YERSINIOSIS, IT'S ONLY A QUESTION OF WHEN.

With strong venison prices, action to protect and maintain weight gain in weaner fawns should be taken, with high importance on vaccination of preventable diseases.

Yersiniosis is the leading cause of death in fawns during autumn and winter. Yersiniosis is a particularly vile and highly infectious disease. First signs in deer fawns are green, watery, smelly diarrhoea which soon becomes bloody.

The bacteria that cause Yersiniosis are widespread in the environment and are carried in the gut of most animals. Carrier animals shed the bacteria in their faeces. These bacteria can survive well in soil, water and pasture, especially during the winter. Animals become infected by eating or drinking faecally contaminated material. Most fawns will be exposed to Yersinia.

Affected animals, 4 to 8 months old, tend to separate off from the group. There is invariably green watery diarrhoea, often with a characteristic smell, usually turning dark or bloody. Affected deer rapidly become dehydrated and weak. The time between first infection and death is often very short.

Disease is primarily related to age, stress and exposure to bacteria. Weaner deer are most at risk. Important stressors include: **weaning, poor nutrition, sudden change in feed, mixing of deer groups, cold wet windy weather, yarding, transport and heavy parasite burdens.**

The disease is much more prevalent in late autumn and winter, and its onset is triggered when deer are exposed to stress or poor weather. When stressed or cold fawns stop eating and they quickly lose body heat. This causes their intestinal movements to slow down allowing Yersinia to multiply rapidly inside the gut. These animals will also shed huge numbers of the bacteria into the environment, leading to significant exposure to other fawns.

It is recommended that farmers should;

- Aim to reduce the effects of common stressors.
- Wean before the rut when it is warmer and more feed is available.

Vaccinate with Yersiniavax® to prevent clinical disease.

Remember: it is generally too late to vaccinate once an outbreak of Yersiniosis has started.

The aim of vaccination is to prevent a serious epidemic by reducing the spread of disease through a mob. Yersiniavax® enhances rather than substitutes for good management. Two doses of Yersiniavax® 3 to 6 weeks apart are required to stimulate immunity. The timing of the first dose is critical in determining the effectiveness of the programme.

Deciding on the best option involves balancing the logistics of vaccinating early against the risk that later vaccination will mean deer are unprotected. This decision requires discussion with your veterinarian in regard to previous history, likely weather, weaning and mating management, feeding, and whether weaners are sold or retained.

Sheep Reminders

- ***Monitor B12 levels***
- ***FEC lambs***
- ***FEC ewes***
- ***Vaccinate 2 tooths second campyvax***
- ***Review winter feed budget***
- ***Exercise rams-check feet***
- ***Flush ewes***
- ***Re-vaccinate ewe lambs clostridial vaccine***
- ***Check zearalone levels***
- ***Teasers out with ewes***
- ***Check and change ram harnesses***

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Sheep: Management Around Mating

Ewe live weight and nutrition are important factors affecting ovulation rate and much of the variation in reproduction performance between flocks can be explained by nutrition prior to mating. Ovulation rate increases by 5% for every 5kgm increase in the mobs mating weight during flushing. It is most important that ewes do not lose weight during mating.

The aim is to have ewes at a mating weight and a condition score of at least 3 at mating. It is safer and more efficient to maintain ewes at good condition scores from weaning until mating. Deliberately taking weight off ewes over summer then flushing them before mating is not recommended. However if ewes are too light – eg the result of drought conditions then it can be economic to flush them on grains or good quality pasture silage. Feeding 250-500 gm/ewe/day of grain is typical. Feeding more than this is rare for economic reasons, but at 500gms/ewe/day this is only half the requirement for feed at flushing. Because of the risk of grain overload (acidosis), ewes should be gradually introduced to grains. Pasture silage is cheaper than grain and there will be no acidosis problems. When good silage is feed ad lib (over 30%dm) intakes of up to 1-1.5 kgm dm/ewe/day can be achieved, and in addition to pasture eaten can be enough to flush ewes in drought conditions.

<u>The use of selenium</u>

A drench is a cheap and effective way of supplying selenium to sheep and is effective providing it is done at the right time of the year and periodic monitoring of animals is undertaken. A single dose of selenium can provide adequate supplementation for 1-3 months, Lambs and hoggets receive adequate amounts and frequency of selenium in anthelminthic drenches. In the case of older sheep ewes and rams should be dosed 1 month before mating and pregnant ewes should be dosed once or twice during pregnancy. However annual topdressing with slow release selenium prills at the rate of 0.5-1kgm/hectare is effective in preventing deficiency for about 12 months. While mating selenium deficient ewes may not show a fall in conception rates as such, it is early embryonic mortality which occurs that increases the dry/dry ewe numbers. The foeti are reabsorbed 23-30 days after conception.

<u>The use of iodine</u>

Iodine is an essential trace element. It is required by the thyroid gland for the production of the hormone thyroxine which is required for normal growth and reproduction. Thyroxine stimulates oxygen usage and increases metabolic rate and controls body heat. When there is a deficiency the first sign is stillborn or non viable lambs. Advanced cases will show goitre (an enlarged thyroid gland) which cause prolonged gestation dystokia and retained membranes. Adult sheep will show reduced fertility. Primary iodine deficiency can occur in New Zealand due to inadequate dietary intake of the element as many pastures and winter crops contain inadequate amounts of iodine. Also secondary deficiency caused by ingestion of goitrogens from brassica crops. These goitrogens prevent the uptake of iodine by the thyroid gland and therefore limits the production of thyroxine. Because selenium is required in an enzyme reaction to produce thyroxine a selenium deficiency can contribute as hypothyroidism. Therefore, the selenium status of sheep at risk from iodine deficiency should be monitored to ensure that selenium deficiency does not complicate an iodine deficiency.

It has been shown in trials iodine will increase embryonic survival of multiple pregnancies ie: will increase the number of twins conceived and was also shown to decrease perinatal mortality of lambs in treated ewes. While iodine can be administered as a drench pre-tup, mid winter and pre- lamb the most convenient method is the use of Flexidine injection once per year 1 month before mating. Flexidine provided a long term "depot" of iodine in an intramuscular injection which is slowly released over a 12 month period.

<u>Diagnosis of Iodine deficiency</u>

The concentration of thyroid hormone levels (T3 – T4) in blood has proved to be an unreliable indication of iodine status of the ewes as is iodine content of pasture. Goitre in new born lambs or aborted lambs is the obvious sign of gross iodine deficiency especially when a large number of lambs in the flock are affected. In subclinical situations, the relative size of the neonatal thyroid has been found to be useful in measuring deficiency. A ratio of neonatal thyroid weight (grams) to body weight (kilo grams) exceeding 0.4 has been associated with higher perinatal mortality in sheep.

In recent years a serum Iodine test has become available at Invermay Gribbles Laboratory and is proving to be a reliable test of ewe iodine levels. It is simple enough to take a few bloods from ewes for this test when we are ram testing if required.

<u>Immunisation against ovarian steroids</u>

The use of Androvax or Ovastim is a useful tool to use in flocks lambing in the 100-140% range when all the increase in lambing % will be mainly twins. The average response in well managed flocks should be about 20%. The immunisation programme consists of two injections eight to ten weeks and 4-6 weeks before mating in the first year. In subsequent years only one injection is required 4-6 weeks before mating. Although these products have the advantage of increased lambs they do present some husbandry challenges with the increase in multiple births. Adequate pasture must be available to feed the extra lambs and maintain ewe body weight for the next mating. While immunisation is a useful tool to increase lambing percentage it is not a substitute for low bodyweight on inadequate nutrition.

<u>Abortion Vaccination</u>

Protection against the common causes of abortion in ewes Toxoplasmosis and Campylobacter goes without saying. You should protect your first lambing (hoggets or two tooth's) flock against these diseases. In the Intervet free screening scheme they offer in "flockcheck" when investigating abortions in unvaccinated ewes they found campylobacter was present in 90% of the farms tested and Toxoplasma was present on 100% of the farms tested. These results show that Toxoplasma and Campylobacter are unavoidable risks to NZ sheep farms.

<u>Don't forget the Rams</u>

Active healthy rams free of Brucellosis are essential for good fertilisation rates, especially when ram/ewe ratio is 1:100. Have them checked annually.

PA Langford BVSc