



Special Points of

July 2010 Sheep Edition

Interest:

- Check the quality of your baleage and hay especially fed to ewes
- Dog vaccination runs are organized and will happen in July. If you have not yet sent your form in please do so immediately or ring the clinics.
- We are coming into the risk period for Sleepy Sickness and Milk Fever, if you require any assistance managing these problems please contact either clinic

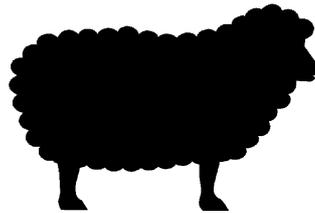
Iodine

About 80% of the body iodine is stored in the thyroid gland in the form of the thyroid hormones and their precursors.

It is thought that iodine's only role in the body is as a component of thyroid hormones. These hormones control cellular energy exchange, metabolic rate, tissue growth, and tissue development.

Pregnancy is the most critical period for iodine demands. Further to this, brassicas may contain goitrogens, which are substances that inhibit thyroid hormone production. Lambs born deficient in iodine will be born with enlarged thyroids. This is tested by dissecting out the thyroid glands, weighing them, and calculating their size relative to the lamb's body size.

Other hormones will influence the release of thyroid hormone. Hormones such as glucocorticoids (control the salt, water, and glucose balance), androgens (sex hormones), somatostatins (hormones released to control other hormones by suppression), growth



hormones, etc all depress the production of thyroid hormone.

Testing for iodine deficiencies has been complicated by obtaining a suitable test. The thyroid hormone levels are influenced by many factors other than low iodine, goiter in lambs is not the most convenient of tests, and production response trials are slow, laborious and come at a cost.

Currently there is a urine test for inorganic iodine which appears to avoid many of the pitfalls of the other tests.

The degree of the deficiency will determine the supplementation programme best suitable to your farming enterprise. It will also allow you to audit the success of your chosen supplementation programme.

The possible treatment regimes are:

1. orally drench with 0.25gm of potassium iodide per ewe
2. Spray a potassium iodide solution onto the pasture in front of the sheep when break feeding at the rate of 0.5gm per ewe
3. Inject with an iodine injection such as Flexidine. This treatment lasts for 1 year in sheep and cattle

Iodine has in the past, and to a lesser extent today, been used to treat certain diseases in animals such as woody and tongue and lumpy jaw. Potassium iodide has been used orally and sodium iodide by intravenous injection. There is a risk of iodine poisoning as extremely high doses need to be used for it to reach therapeutic levels. The results of iodine treatment can be equivocal (a bit hit and miss.)

Iodine can also be used topically to treat superficial infections caused by fungi and bacteria etc.

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Crop feeding

Some handy feeding guidelines and potential problems associated with grazing winter forage crops:

When first introducing stock to crop, it should be done gradually over a 7-10 day period, allowing 1-2 hours grazing per day initially but gradually increasing this allowance with time. Brassicas are a good source of protein and carbohydrate, but at least 20% of the diet needs to be good quality hay or straw to provide sufficient fibre for healthy rumen function. Cattle and sheep should be transitioned onto a lactating pasture 3 weeks prior to calving/lambing.

Nitrate toxicity:

Nitrate levels may increase in the crop after a period of drought followed by rain or, as more likely in Southland, accumulate in the plant after many days without sufficient sunshine.

Crops can be tested for nitrate levels by taking a representative sample from the crop (at least 3 plants, including the stem/root and the leaf). Samples can be checked at the clinic or you may wish to purchase your own testing kits.

Cattle are more sensitive to nitrate toxicity than sheep. It is

more likely to occur when they gorge themselves on a new break, so hay or silage should always be fed before the break is shifted. Symptoms may take up to 6 hours to develop after ingestion – stock may be found dead, staggering, down, have laboured breathing or with signs of colic. Treatment may be successful if the affected stock are examined quickly. Abortions and deformed fetuses have also been recorded in ewes that have been affected by nitrate toxicity.

Redwater Disease:

The culprit for this disease is a sulphur containing complex (SMCO) which is found in the plant. Levels of SMCO are increased in the plant if it has a stunted growth pattern, often secondary to drought or heavy frosts. Levels are likely to be higher in regrowth or post flowering, and if sulphur-containing fertiliser has been applied.

Symptoms may be seen in stock from 1-3 weeks after grazing on the crop. Usually red urine is passed and they may be lethargic and have pale gums. Occasionally stock are found dead.

To help avoid redwater disease stock should be gradually introduced to the crop and not

fed the crop as the sole diet. Symptoms usually improve if stock are removed off the crop. Crop can be tested for SMCO levels.

Thiamine deficiency:

High sulphur levels in the plants can lead to thiamine deficiency in stock. Affected stock may be blind and flighty initially, followed by depression and death later in the course of the disease, which may take from hours to days. Thiamine can be supplemented in the form of a series of injections and treatment is usually successful if caught early enough.

Iodine deficiency:

The greatest risk involved in iodine deficiency is lambs born to ewes that have been grazing brassica crops throughout pregnancy. They may be born weak and with large thyroid glands (goitre). The cause of iodine deficiency is high levels of thiocyanates, which prevent uptake of iodine by the thyroid. Levels of thiocyanates are highest in immature leaves and in seed heads. Ewes grazing brassica crops throughout pregnancy should be supplemented with iodine to help prevent this problem. Hoggets may also develop goitre on crop.

“ at least 20% of the diet needs to be good quality hay or straw”



Abortion in ewes

The most common cause of abortions in NZ ewe flocks are Toxoplasmosis, Campylobacter, and in Otago and Southland; Salmonella brandenburg.

If you find yourself facing some abortions this season then we may be able to identify the cause by taking samples from the aborted foetus and/or placenta and sending them to the lab. Necessary precautions if facing an outbreak are spreading the sheep out to reduce grazing pressure and spread of infection, making sure all aborted fetuses and placenta are collected and disposed of and separating aborted/ing ewes from the rest of the flock. Beware that all of these are human health risks, so take special care with personal hygiene when handling the fetuses or affected ewes.

Campylobacter usually causes abortion in the final third of gestation in the previously unexposed ewe. Infection may be brought into the flock by carrier ewes or from scavenging

birds spreading aborted material from paddock to paddock. Ewes do not usually show any illness after abortion.

It is prevented by vaccination of first lambers. Two shots are given four to six weeks apart ideally pre tupping, with a booster pre-tupping every year after.

Toxoplasmosis is a tiny intracellular parasite, which is ingested by the ewe from contaminated hay or concentrates. Infected (usually young) cats are the source of contamination of feed. As with campylobacter, there are no symptoms of illness in the affected ewe. There is no evidence of ewe to ewe spread, but as above, aborted fetuses and placentae should be removed and disposed of as they will contaminate the pasture.

Salmonella Brandenburg is a bacterial infection which can cause devastating losses of affected ewes and lambs. The

infection may be brought onto the property by carrier ewes or shed in the faeces of black backed gulls. The bacteria may survive in the soil for 4-5 months. Affected ewes are usually late in pregnancy and multiple-lamb bearing. Ewes will usually have a fever and be dull, and abort a rotten foetus in association with an infection of the uterus. Around 50% of affected ewes will die, unless treated early in infection with appropriate antibiotics.

Farms that are worse affected by abortion storms often have high grazing densities, for example on a strip grazing system. In the event of an outbreak, ewes should be spread out as much as possible, and stressors such as yarding avoided. Aborting ewes should be separated from the flock, and as above, fetuses and placenta quickly disposed. Unaffected mobs should be visited before affected mobs and vehicles/motorbikes sprayed with disinfectant to prevent spread from mob to mob.



“Farms worse affected often have high grazing densities”

Feeding the pregnant ewe

Pregnant ewes should maintain a steady live weight during the month following mating. Any variation in the amount of feed will have a greater effect on lambing percentages than the feeding level itself. Mating body condition should be maintained through mid pregnancy. If ewes are too fat, they should be encouraged to lose up to 10 % of their body weight by 8 weeks prior to lambing to help prevent bearing problems and dystocia. They should not be allowed to continue to lose weight beyond this time. Dramatic weight loss or feed restriction can lead to

sleepy sickness or twin lamb disease. To ensure that the multiple bearing ewes receive priority feeding, separate single carrying ewes from the multiple mobs as soon as possible after scanning unless residual pasture masses after grazing are 800 kg DM/ ha or more. Approximately 70 % of foetal growth takes place in the final 6 weeks of pregnancy, so ewes pregnant with more than one fetus should receive higher feeding levels than the single mob in late pregnancy (last 4 weeks) in order to prevent weight loss. This is due to a considerable increase in the

ewe's energy requirements to maintain her own body weight or condition. Pasture covers of 12 - 1600 kg DM/ha should be utilised for the feeding of multiple bearing ewes over this period. If pasture covers are inadequate, supplementation may be necessary to meet the ewes feed requirements in late pregnancy. Ideal supplements are high quality and high ME feeds like grains or sheep nuts so intake is not limited by feed bulk. However, carefully planned introduction of these feedstuffs is necessary to ensure good utilisation.



Dog Housing

Keeping your working force in tip-top condition is very important. Good living conditions are vital to maintaining a healthy dog, along with good nutrition, worming and exercise. With a few tweaks a healthy, pleasant and easy care set up can be created.

The Animal Welfare Act says that the owner and every person in charge of an animal, must ensure that the animal is provided with adequate food and water, shelter, opportunity to display normal behaviour, handling that minimises unnecessary pain or distress and protection from or rapid diagnosis of any significant injury or disease.

We know that dogs are susceptible to parasites just as sheep are, although different species are involved. Hookworm larvae in faeces and contaminated soil penetrate through the skin, where they cause allergic skin disease in some dogs. People may also be infected by hookworms if in contact with dog faeces, resulting in itchy, red skin lesions. Adult

hookworms and other gut worms may cause chronic anaemia, weight loss, dull coat and lethargy in adult dogs, as well as vomiting and diarrhoea in puppies.

Water dishes will need a scrub every now and then to remove green algae which can be toxic as well as putrid. A feed dish is important so that the dogs are not eating from the flooring which is likely to have some faecal and therefore parasite contamination.

From a 'good practice' point of view, it is important that your dog housing is dry, draught-free, well ventilated and clean. There should be sufficient space for the dogs to move around, although letting them off for a run and toileting each day is also important.

When dogs are tied up on the ground it can be difficult to remove faeces and the dog may dig holes that become mud pools, so we recommend raised housing, ideally of the kennel plus run type. Slatted flooring in the run should allow faeces to

fall through below, although regular removal of any that haven't will still be necessary to prevent build up. Faeces built up beneath the runs can then be periodically disposed of away from the kennels, or waterblasted away if a concrete surface is used.

For older dogs, or those that are prone to developing calluses on their elbows and hocks, a soft bed (sacking stuffed with wool works perfectly) is important. This will make arthritic dogs more comfortable and help protect the joints of young dogs.

Other housing options may be viable for your situation, but remember the basic principles of keeping it clean, dry and worm free.



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Dog Vaccination

Just like your sheep, dogs require a yearly vaccination to protect them from nasty viral diseases. Many of these have no effective treatment, and an affected animal will die a slow and painful death. The main diseases we vaccinate for are:

Distemper - causes meningitis and pneumonia, with extensive salivation and nasal and ocular discharge. Severely affected dogs will die

Parvovirus - parvo sadly is seen much more often than we would like. Parvo affects primarily

puppies, although unvaccinated older dogs can be susceptible. It causes profuse, haemorrhagic diarrhoea and vomiting. The dog usually dies of dehydration and a blood infection.

Hepatitis - causes an acute liver infection leading to a jaundiced, vomiting diarrhoeic dog, often bleeding from the nose and mouth. They often die within a few hours.

Parainfluenza - parainfluenza virus is one of the many underlying causes of canine respiratory disease. Fortunately

it rarely crosses over to humans.

All of these diseases are easily preventable by yearly vaccination of your dogs. In order to facilitate this service, we offer dog vaccination runs in mid to late July to come out on farm and vaccinate all your dogs. Puppies will need a booster 4 weeks after the first dose to be fully protected. You should receive a letter in the mail regarding this service, or please ring the clinic if you have any queries.

