

NEWE**TRITION**

Parasites and Protein

Lucy Cameron BVSc BSc - VETERINARY CENTRE Waimate

Young growing lambs have a high demand for protein: for body maintenance, lean tissue and wool growth and a healthy immune system. Going into summer, worm burdens can place an additional protein demand on lambs, often coinciding with declining pasture quality, legumes making up a lower proportion of the sward, weaning, or a reduction in milk intake as ewe production drops.

A worm burden affects the lamb by:

- reducing appetite, limiting the total intake the lambs are achieving
- · direct damage to the gut lining resulting in reduced protein uptake
- · additional losses as the gut 'leaks' protein

If lambs are already on a marginally adequate diet (low protein, low available energy or overall lack of feed), then the effect of the parasite burden can **significantly reduce feed intake and growth rates** over this critical period. **Immunity will also suffer**, and lambs will be less able to resist a parasite burden or infection (e.g. pneumonia).

Smaller lambs have the highest protein demand, and will be most affected by a heavy parasite burden. Lambs under 35kg should be a priority group for access to any higher quality feed available such as chicory, herbs or brassicas. These feeds have the added advantage of tending to have lower levels of larval contamination than grass dominant pasture. It is the daily ingestion and development of larvae within the lamb that cause the majority of production losses. In a 1982

study, it was shown that **undrenched lambs grazed on low contamination pastures grew faster** than lambs that were drenched regularly on high contamination pastures.

Depending on the season and available pasture, lambs may already be on the back foot as ewe's milk production drops and pasture that is available may not have adequate legume content. It is therefore important to maintain good parasite control as to not add additional stress to the growing lambs, and where possible, prioritise feeding cleaner higher quality feeds such as brassicas or herb and legume-based pastures.

Lambs receiving a pre-weaning drench



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by the Big Blue Cross

Out & About with Dave

Dave Robertson BVSc BSc - VETERINARY CENTRE Oamaru

The Veterinary advice around parasite management involves many layers, its not just about what drench to use. Such as:

- Following young stock with adults, integrating sheep with cattle in grazing rotations.
- Use of forages that do not allow parasites to be eaten by stock.
- Monitoring through growth rates, dag scores, body condition and Faecal Egg Counts.
- Applying Refugia principles: leaving a pool of susceptible parasites not exposed to drenches.
- Using drenches that are effective and targeted for best return on investment.

Another important layer is the genetics of animals and their ability to handle a worm challenge. There are some animals that can either handle a challenge better by fighting it (resisting the worms) and some that ignore the worms (being resilient). The age at which these immune functions kick in will vary between sheep and breeds.

Some of our stud breeders are looking more at the health traits and selecting animals that have

- Lower dag scores
- · Lower egg counts
- Can grow and thrive in the face of a worm challenge.

As part of an integrated animal health strategy the genetics you chose are

essential. Being able to ask the right questions to

your stud breeders and get the right data and information is important. Is it enough for breeder to say "we don't drench our stock"? How are they measuring different responses to parasitism, how are they challenging and selecting more worm tolerant animals?

This time of year is when vets are out doing brucellosis testing and ram soundness checks on sale rams. It is a good chance to discuss up-coming lamb worm control options and strategies with the seed stock farmers. Below are some snaps of our ram breeding clients we've recently caught up with.



▲ Checking rams prior to the sale.

Alistair and Karen McLeod Egilshay stud texels, Ile de France and Sufftex ram breeders. New to the Maniototo. Alistair is a no nonsense, no pampering stud man. You'll see the rams on right as you drive into Ranfurly next time.



▲ Tailing and weaning is a good chance to assess and review the refugia policy

Donald McKenzie at Tabletop Haka Valley, shows off one of his refugia merino ewes. No dags, BCS 3. Leaving a proportion of the ewe flock undrenched is important and routine farm practice now.



◀ The Modern Merino

On the health trait front Bill Sutherland pointed out some of the features of one of his sires. Bare breech, more fat and muscle. This seems to leave a more robust, fertile type of fine wool sheep. "It is amazing what the merino has achieved in such a short space of time with rearing more lambs, clipping enough decent fine wool whilst handling feet and worm issues."

"There is certainly more work to do, but we have got some good genetic tools to take us places now".





▲ How much drenching do sheep need?

Charlie Hore Patearoa Romneys has shown that his romney hoggets require very little drenching. Using FEC monitoring yearling rams have only had 1 drench since weaning. "The counts can rise but come back down again if they are any good. A few poorer doers are culled, which means the mob is getting challenged, but it's the worm tolerant stock that we want to present for sale."

Similar story for Elisabeth Denham at Stoneburn Romneys. The modern sheep farmer is not wanting to drench animals all the time "just in case". Elisabeth has adopted the minimal drench for her rams also.

Getting the genetics to tolerate worm challenge is important. It complements using crops and beef cows to avoid worm challenges in the sheep system.

It's Fly Time

Luke Smyth BVSc - VETERINARY CENTRE Oamaru

With a combination of heat and moisture the danger zone for fly is now upon us.

If you are getting fly strike, stop and have a think about why there are struck sheep:

- Are they uncrutched and offering smelly dirty bums to interested flies?
- · Lambs missed a drench?
- Could a preventative dip have been done sooner and more efficiently?
- When were they last dipped and was the dip applied correctly?
- The best and most cost-effective approach to prevent flystrike is to use a combination of strategies that keep sheep as unattractive to flies as possible.

1 No fly chemical works in dags

Preventing sheep becoming daggy is vital.

- Have a robust worm control programme using an effective drench to reduce scouring. Don't extend drench intervals unless you are monitoring with FEC.
- Crutch or shear to remove dags and allow the crutch to dry out.
- Grazing high tannin crops or clean pasture results in less dags.

2 Reduce fly challenge

- Keep sheep away from fly hotspots.
- Flies love sheltered conditions such as shelter belts and gullies with scrub. Move sheep to higher open ground where the temperatures are cooler, and the wind speed is higher.
- Get dead carcases down the offal hole as quickly as possible.

3 Chemical application

- Faulty application is often to blame for poor fly results following dipping
- For saturation dips to be effective the sheep must be wet to skin level along the backline, over the rump and around the crutch. Pushing large numbers of sheep quickly through the jetting race is often to blame for inadequate coverage. When the first pen of sheep has been through the jetting race, stop and part the wool at multiple sites to ensure the skin is wet.



FECRT

Daley Watson-Krawitz BVSc - VETERINARY CENTRE Waimate

If you have been thinking about doing a Fecal Egg Count Reduction Test (FECRT) this season, the next few months are a good time to get this done.

We can perform a reduction test anytime from when lambs are wormy enough through until about the end of April. In some of our areas, particularly if they are prone to getting summer dry we struggle to get animals wormy enough to start the test so the best time for most farmers is to do it around the new year period/at weaning.

A FECRT may seem like a big deal and a hassle but all it will involve is only 2 visits from us taking roughly 1.5hrs each.

Here is the process:

 Set aside 90-100 lambs for the test (5 test groups of 15 lambs and 1 control group) which you do not drench.

- Sample 10 of these individually (either do this yourself direct from sheep's bum, or get us out to do this)
- We FEC these samples in house to see if lambs are wormy enough. If they are, then we can start the test anytime, even the next day! If not, leave undrenched (and separated/identifiable) and re-sample in 1-2 weeks.
- Visit 1 we weigh each lamb, assign to a drench group and dose to weight.
- 10 days later we come back and sample at least 10 from each group.

And that's it! We do the rest, sending samples to lab for FEC's and larval culture.

Larval cultures can take a couple of weeks

to come back but once done we have a good overview of the drench resistance status on your property and for each species of worm.

A reduction test will cost roughly around \$1600-\$1800 to do, with much of this being lab fees.

Just doing a FECRT will not make your resistance status any better or worse, it is what you DO with that information going forward (drench choices, management/grazing policies) that will make a difference to your drench status in the future.

If you would like to book in a reduction test or discuss reduction tests then please feel free to get in contact with one of us at the Veterinary Centre.



Novels are no longer a novel concept

George Smith BVSc BSc VETERINARY CENTRE Oamaru



It feels like yesterday that we were announcing the release of two novel anthelmintic products (Zolvix and Startect) coming into the market however in reality the original Zolvix (Monepantel) has been available for greater than 10 years. The crucial concept to comprehend regarding the role novel actives can play on your farm is, it allows you the ability to use an alternative active ingredient to prevent the continued repeated exposure of worms to the traditional anthelmintic families. Novel actives are designed to be incorporated into drenching programs as a knockout, exit or quarantine drench to remove potentially resistant worm populations.

Novel actives have been successfully incorporated into drenching programs on a number of local farms to prevent, or at the very least delay, the speed at which triple drench resistance has taken hold. Unfortunately, traditional anthelmintic products continue to be placed under immense pressure from resistant worm populations and this is going to continue to worsen with time. The concept of using products such as Startect and Zolvix Plus is no longer a trial or a "novel concept" they are an essential weapon in your anthelmintic arsenal. Are you actively utilising a novel active product in your drenching regime?



Vanessa our 8 year experienced, resident vet in Ranfurly checking out the sale team at Stonehenge.

Vanessa is a great all round vet. She is enioving the sheep and beef cattle clients of the Strath Taieri and Maniototo. She also walks the talk with recently having purchased a farm in the area with her partner Andy.



Bionic Leakage

Gwenyth Mark BVSc VETERINARY CENTRE Omarama



This year we are noticing an increasing amount of leakage from bionic capsules. Bionic capsule leakage is monitored through Faecal Egg Counts (FECs) performed between 60-80 days after capsuling. Five years ago, only about a third of farms who had a FEC had any faecal samples with egg counts. This year 86% of our farms have had FECs averaging above zero. Does this mean bionic capsules are no longer working? How can you maximise profitability, while minimizing drench resistance?

Farmers using bionic capsules with a low number of eggs on their FEC at 60-80 days, will still be getting production benefits from capsules. These include liveweight and production gains from a reduced intestinal worm burden, a reduction in populations of infective parasite larvae on pasture, and reduced dags.

Having leakage means the larvae that do contaminate the pasture have some resistance to both macrocyclic lactone (-mectin) and benzimidazole (BZ) families. The resistant larvae are then ingested by lambs, who if left undrenched can increase parasite numbers more rapidly.

To continue to use and have effective drench families, the impact of resistant parasites needs to be reduced. Strategies to do this include

- · Targeted drenching: What stock classes will benefit most from a capsule? i.e., twin-bearing, Two-tooths, low BCS ewes.
- · Refugia: plan to leave a percentage of each mob of ewes undrenched to dilute the resistant parasite larvae on pasture. The greater your resistance the greater amount of refugia needed.
- Lamb Drench Plan: Drench lambs with the most effective drench for your farm, at no less than a 28-day interval. Your weaning drench is the most important drench to reduce any resistant worms acquired from ewes pre-weaning. A day-10 drench check post weaning is the first step to identify further resistance issues.

Drench plans and parasite control are not one size fits all. If you are concerned about your drench resistance, contact your vet to discuss your parasite control.

Product of the Month

Zolvix Plus Oral Sheep Drench

- **Novel Active**
- · Actives Monepantel plus Abamectin
- Dose 1ml per 10kg liveweight
- From \$0.74 plus gst per 30kg lamb dose (5 litre pack rate)
- Meat Withhold 14 days
- Used as a knockout, exit or quarantine drench in strategic drench programs, Zolvix[™] Plus provides premium parasite control and helps to protect the efficacy of other effective drenches.



Merry Christmas from the Veterinary Centre administration staff...



Courtney, Heather, Janene, Shea, Catherine, Kirsty, Ash Andrea, Julie and Brooklyn



Palmerston Carla and Nicky



Ranfurly

Lee-Ann, Ella, Jo and Vanessa

Thank you for your custom and for choosing us as your veterinary provider. From our Veterinarians, our clinic managers, our Territory Managers on the road and all of the Veterinary Centre team, it is our pleasure to be working with you and we wish you and your families a very safe and happy Christmas.



Waimate

Sarah, Sam, Johanna, Myles and Chloe



Kurow Chrissy



Gwyn & Emma



Helen

Product of the Month

Cyrex LIQUID **Active ingredients**

- · Cyromazine for long term protection
- · Spinosad for instant kill

Features

- · Effective against flies, maggots and
- Combination power of 2 actives to mitigate resistance.

Length of protection

• Up to 12 weeks protection (requires full saturation)

Application

- Dilution rate 1 litre makes 500 litres of wash
- At least 2 litres of wash required per sheep and an additional 0.5L for each month of wool growth up to a maximum of 5 litres per
- Suitable for all breeds of sheep.

Withhold

Meat withhold 7 days

Pricing \$0.21 per litre (excl gst)

Veterinary Centre EwesNews **EXTRA**



Fanning the sudden death fire on rocket fuel feed

Ellen Holler BVSc **VETERINARY CENTRE** Oamaru



We all know vaccines are one of the most effective ways to reduce loss before and around weaning. Clostridial organisms are the usual suspects of sudden death in New Zealand lambs; they are endemic within sheep flocks in New Zealand and found everywhere in the environment, making eradication almost impossible. Pulpy kidney arises when there is an overflow of fermentable carbohydrate going into the small intestine, allowing overgrowth of clostridial bacteria in the gut. However, sudden death caused by pulpy kidney can be effectively eliminated using a 5-in-1 or 10-in-1 vaccine. These must be given TWICE, FOUR WEEKS APART to be effective.

Red Gut can also occur in well growing lambs grazed on high quality pasture – lucerne or clover. The high-quality feed is low in fibre, causing the rumen capacity to shrink. High levels of protein in the feed is fermented in the large bowel causing it to expand and twist, resulting in red gut. This can be mitigated by:

- Making fibre (straw and hay) available on pasture not always practical.
- · Grazing on high quality pasture 2 of 7 days
- Mowing and wilting a few rounds of lucerne prior to grazing.



Pulpy Kidney

The effects of Pulpy Kidney

the traditional Festive Ham Promo

Enjoy a delicious Ham-on-the-Bone!



festive season when you purchase any of the selected drenches from the Veterinary Centre by the Big Blue Cross

Yours this

Abortion Storms

Two Diseases Two Vaccines



Toxoplasma is present on 100% of New Zealand farms, and Campylobacter on 88% *1 – but both are equally important. These two diseases can cause abortion storms with losses up to 30%, or more, of lambs*2,3.

Preventing them takes two vaccines. Maiden ewes require 1 dose of Toxovax and 2 doses of Campyvax4 ahead of mating.

An annual booster of Campyvax4 to mixed age ewes is required in following years.

ToxoVax

- Controls the risk of Toxoplasma. **Live** vaccine.
- ✓ Up to 8% higher lambing percentages (3% national average).
- ✓ Vaccinate at least 4 weeks prior to first mating.
- One shot gives a lifetime immunity.
- ✓ MUST BE ORDERED AT LEAST 4 WEEKS IN **ADVANCE OF TREATMENT** to ensure availability.

CampyVax4

- ✓ Controls the risk of Campylobacter.
- ✓ Increase lambing by an average 9%.
- ✓ Protect maiden ewes with TWO shots 4-6 weeks apart, or one booster shot in previously vaccinated

Example for early April mating

2 Tooth/Hogget Pre-mating **Animal Health Programme**

5 Feb

- CampyVax4 First Sensitiser Shot (1ml/subcut)
- ToxoVax 2ml Dose Intramuscular

5 Mar

- CampyVax4 Second Booster Shot (1ml/subcut)
- Flexidine 1.5ml Dose Intramuscular
- 5 Apr
- Put the Ram out!

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- 1. Dempster et al (2011), NZ Veterinary Journal, 59:4 155-159.
- Wilkins et al (1992) Surveillance, 19:4, 20-23
- 3. Sahin et al (2017) The Annual Review of Animal Biosciences, 5: 9.1-9.22.