

NOVEMBER 2018

VET NEWS

EXOTIC DISEASES

TAPE WORMS

SUN VS SKIN



Some photos by Richard Hilson

VETservices
www.vshb.co.nz

EXOTIC DISEASE ERADICATION FROM NEW ZEALAND

STUART BRUERE

The current *M. bovis* eradication programme in cattle has recalled to my mind some of the disease incursions we have experienced in New Zealand since sheep first arrived here. Two of the notable ones are Sheep Scab and Scrapie. Both diseases have long since been eradicated. Here is a short history of how this was done.

SHEEP SCAB

This is a mite infection in the skin of sheep caused by *Psoroptes ovis*. It was first recognised in New Zealand in sheep imported prior to 1850. The disease symptoms caused by this is constant rubbing to the extent that sheep will rub off all their wool and damage large areas of skin. At the time it not only caused significant production loss but also cast a social stigma on the owners of the sheep. Control and eradication was achieved by the actions of farmers and local legislative councils. The process of dipping was tedious. Large volumes of water were heated and had added to it tobacco dust, sulphur and sometimes lime or arsenic. The water needed to be between 37C – 48C; about the temperature of a hot bath and the sheep were immersed in plunge dips for two minutes. A second dip was required 16 days later to kill off the mites that had hatched in the interim. Infected ground was left free for 6 months before sheep could return to graze. New Zealand was declared free of Sheep Scab in 1894. There was subsequently one further outbreak in 1896 but since then it has not recurred. It is a huge credit to our forebears that they managed to eradicate this disease. The sheep population in New Zealand was 18 million in 1890.

SCRAPIE

The best way to describe the causative agent is the scrapie agent. This protein molecule invades nervous tissue, particularly the brain and spinal cord. These proteins cause damage to brain cells over a long period. This disease has a very long incubation period. There are some DNA types in sheep that are more resistant to this agent. The initial clinical symptoms are sheep

with a “vague” staring look which progresses to intense itchy skin and eventually an uncoordinated gait, weight loss and death.



A sheep with Scrapie showing the rough wool from rubbing the skin hard.

It was first detected in New Zealand by practising veterinarians in Ashburton, in a Suffolk ram in 1952. The ram had been imported in 1950 from the UK. Further cases were found in Southland in 1954. At this point the Department of Agriculture instituted a containment and eradication programme that lasted 3 years. In all, 4339 sheep were destroyed and movement control affected 191 farms for three years. There were many stories from the period. It has been recorded that tempers were frayed and unfortunately the Department of Agriculture did not gain popularity. These words echo to us in 2018 as we attempt eradication of *M. bovis*!

There was a further attempt to import sheep from the UK in 1972. The sheep were sourced from 23 farms that were reported as free from Scrapie. While the sheep were in quarantine, two cases were diagnosed and the whole sorry saga was abandoned and all the sheep were slaughtered and buried in August 1978. The sheep were quarantined on Mana Island near Wellington and Crater Farm in the Rotorua District. The original importation included 110 sheep but by the time the import was terminated 2000 sheep were killed and buried on Mana Island and 5000 were killed and buried on Crater Farm. The film footage often broadcast on television in NZ used to demonstrate burning sheep carcasses in a mock up Foot and Mouth Outbreak is actually from the first disposal of 300 sheep killed and incinerated on Mana Island.

CHB VET CLUB SCHOLARSHIPS- REMINDER!

Applications close soon for the 2018 round.

Visit <https://www.vshb.co.nz/about/farmers-veterinary-club> for more information or call into the Waipukurau Clinic to collect applications forms.

MARKS RETIREMENT

CLARE RYAN

After 39 years at Vet Services Hastings, Mark Matthews has decided to hang up his stethoscope and retire.

Mark came from Paihiatua to start up the clinic in Queen Street, Hastings by himself until Roger joined him a few years later. This meant 24 hours 7 days a week on call for all species, all by himself – no mean feat.

Mark went on to do his Masters in Sheep surgery and medicine in 1983 which led to the development and promotion of sheep scanning to the most important tool it is today. This was after a false start using a very old and large x-ray machine.

There are not many vets with such a range of skills, experience and interests across the wide range of species such as Mark. Just to name a few -small animal medicine and orthopaedics,



the first Embryo transfer in Deer in the world, Goat medicine in the goat boom days, Ferret and ostrich medicine, worm and drench resistance and farm consultancy. He has been awarded the Alan Baldry award for Sheep Practitioner of the year for his contribution to sheep veterinary science.

Mark has been very involved in the community over the years with horse events, judging at the A and P Show and toast master which made him into the great speaker for all the presentations. All this while raising his 4 daughters by himself.

Mark, you will be missed for your calm nature, wealth of knowledge and cheeky wit. We wish you the best in your retirement with wife Cathy and your many children and grandchildren.

WEIGHT LOSS AND DROOLING IN A COW - IS IT WOODY TONGUE?

INGRID MEIJER

It's a common scenario at the vet clinic for a farmer to come in asking for antibiotics for a cow with woody tongue. When questioned about the cow, the history is normally along the lines of "the cow is drooling and losing weight". A swelling under the chin is also sometimes noted. Farmer diagnosis is often based off these symptoms alone - it isn't common for farmers to palpate the tongue to confirm this diagnosis.

These signs are all consistent with woody tongue BUT they can also be symptoms of other illnesses. Just because it looks like it could be woody tongue doesn't mean that it is woody tongue.

The only way to accurately diagnose woody tongue is to feel the whole tongue. The tongue has a characteristic firmness (feels hard like wood) when an animal has woody tongue. Some or all of the tongue may be affected so it is important to make sure you feel the whole tongue.

A familiar call out as a veterinarian is a cow which a farmer "thought it had woody tongue but it hasn't responded to the antibiotics given". When a suspected woody tongue animal fails to respond to an appropriate course of antibiotics, this usually means that the problem is not woody tongue. Some examples of cows seen by veterinarians with a farmer diagnosis of woody tongue have had mouth abscesses, foreign objects in their mouth, broken jaws, mouth tumours and Johnes disease. In some of these cases, the cows had a swelling on only one side of their

face. Asymmetrical facial swellings are unlikely to be caused by woody tongue and are more likely due to other causes, for example a facial abscess.

If you have a cow that you suspect has woody tongue but you are not sure, one of our veterinarians can take a look and diagnose the problem for you.

So what is Woody Tongue?

Woody tongue (the medical term for this is Actinobacillosis) is caused by the bacteria *Actinobacillus lignieresii*. This bacteria lives in the mouth of cows, as part of the normal bacterial flora. It causes problems when it is able to enter the soft tissues of the mouth (the tongue, lips or cheeks). It enters the soft tissue through any cuts or abrasions in the mouth. Cuts in the mouth can be caused by thistles, sharp pieces of hay or foreign objects like wire. Once in the soft tissue, the bacteria forms small abscesses that cause the characteristic thickening and hardening of tissue. This hardening of the tongue makes it difficult for cows to eat and swallow, resulting in weight loss, drooling and sometimes a symmetrical swelling underneath the jaw.

The antibiotic to treat woody tongue is Streptomycin given daily for 3 days. These animals show good response to treatment and will normally start eating within 48 hours of treatment being started.

Just make sure that it is woody tongue you are treating!

SUN VERSUS THE SKIN – THERE IS NO CONTEST

LUCY DOWSETT

Sunny Hawke's Bay is fantastic for enjoying the beaches and warm summer nights with the BBQ, but just like we need to be careful to avoid the sun between those "danger hours", the same holds true for our pets.

Certain breeds and in particular, those with white hair and unpigmented skin, need to be even more careful in these summer months to prevent the occurrence of sun induced skin damage and cancers.

The summer season can also bring with it a number of different allergens that may trigger itching, as well as other lumps and bumps. It is important if you notice any changes like these in your pets to have them checked out by your vet to ensure an accurate diagnosis between all these different summer-induced possible skin changes.

These are a couple of the most common sun-induced skin diseases that we see here in the Hawke's Bay:

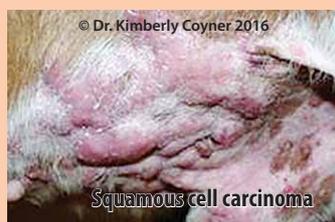
Solar dermatitis – This is a condition that causes the skin to become inflamed due to prolonged exposure to UVB radiation, damaging the skin cells. This constant damage to skin cells can result in mutations to their DNA and progress to skin cancer, such as squamous cell carcinoma. The duration and intensity of sun exposure is proportional to the degree of skin damage. The sun damage is usually seen on unpigmented and thinly haired regions such as the top of the nose, eyelids, flanks, armpits and stomach – this makes those of our pets that like sunbathing on their backs at a high risk of developing solar dermatitis.

Secondary bacterial infections commonly occur in these areas of damaged skin, adding more irritation, discomfort and the necessity to seek veterinary care.

Squamous cell carcinoma (SCC) - This is a locally aggressive skin tumour, which means that although it might not spread to lymph nodes or other organs very quickly, it does result in pain and erosion of the tumour affected area. These areas become deformed and will often develop secondary bacterial infections and bleed when knocked.

SCCs can occur spontaneously, but we have evidence that UV light plays a direct role in the development of this disease. Because UV light is involved in the development of SCC, the most common sites are the nose, ears (especially in white cats), scrotum and stomach.

The best and easiest way to prevent or minimise the chance of acquiring these diseases in your pets (especially for those breeds that are more susceptible to sun induced skin diseases such as Bull terriers, Collies, Dalmations, American pit bull, American Staffordshire, Boxer, Whippet and English Bull dogs) is to restrict sun exposure between 9 - 4pm. If your dog is in a kennel and run, ensure for the most intensely sunny part of the day that the kennel and run is in the shade. If your dog is free in a backyard but loves sunbathing, it is recommended to restrict the area so that again, there is only shade available for the middle part of the day – a dog won't choose to go in the shade to look after its skin – you have to make this choice and give them no other option. If avoidance of the sun is not possible, then applying sunblock high in SPF 30+, waterproof and labelled safe for babies is recommended to apply twice a day, 10-15mins before sun exposure, to those vulnerable areas. Caution needs to be used for those zinc based sunblocks to ensure it is only applied to areas inaccessible to the animals tongue as zinc toxicity is possible. If your dog is particularly sensitive – like humans, test the sunblock on a small area of skin such as on the inside of the thigh, to ensure no reactions occur.



MEASURING THE TAPE

RICHARD HILSON

Last spring we did a small but comprehensive on-farm trial to see what weight gain effects might be seen in when lambs are pre-wean drenched. Originally it was intended to look at what was a "significant" faecal egg count in the lambs, so we might better predict the need for pre-wean drenching in our patch, but it ultimately threw up a raft of other answers and questions. Sometimes the best way to get relevant local answers is to go and look for yourself, rather than rely on work done elsewhere or by groups with predetermined answers in mind.

The lambs involved were predominantly twins and were heading for a one hundred day weaning date. In general, egg counts weren't that high but lambs generally had small amounts of dags and were not absolutely "blooming". From each of several mobs, faecal samples were taken from lambs and a sample of each mob was drenched with Matrix Tape, to remove as many internal parasites as possible. All lambs in the trial mobs were weighed and identified into their drench/non-drench groups so they could be reweighed at weaning.

In each mob, a judgement was made as to how many to leave undrenched as we had yet to do the faecal egg count – pretty much mirroring how the decision might be made mob by mob on any farm. In mobs on grass, it was a struggle leaving fifty undrenched as the lambs looked hard. Conversely, the lambs on lucerne, while they had been born on grass and not gone onto lucerne until after docking, looked great and it seemed a waste of time drenching them, so only fifty of that mob was drenched.

What happened? None of the ewes were pre-lamb drenched so there was likely to be a fair bit of worm challenge on the grass paddocks. Egg counts were middle of the road and given the counts seen in previous work that has suggested lambs wouldn't benefit from a prewean drench, levels of 450 to 850 epg weren't through the roof. But there was a definite gain in weight for drenched lambs, justifying the time and expensive in the prewean drench. That was the basic answer we wanted anyway.

Mob	Ewe age	Lamb wght at drenching	Wght gain from drench
Grass fed twins	MA	24.2kg	1.7kg
Grass fed twins	2 tooth	22.3kg	2.1kg
Lucerne fed twins	MA	26.4kg	1.3kg

The net value from prewean drenching (at a \$6.50 schedule last year) was \$4 to \$6 per lamb. A lot of money across a farm full of lambs. Note how the well fed Lucerne lambs had less benefit from being worm-free and the lambs on two tooth ewes were somewhat limited by the amount of milk their mothers were producing. This was also reflected in the lamb weights at the time of prewean drenching.

Why the difference when we drenched? Well, part of the answer may also be in tapeworm. There were masses of tape segments to see when we took the prewean samples and the scale of tape burdens is hard to measure without killing lambs and having a look inside (so that wasn't going to happen!). As a result, our vet team have asked that the work be repeated this year, to see what effect tapeworm was having. That has just been set up

and we are comparing the use of Switch (no praziquantel or BZ in that to effect tapes) with Matrix Tape (which will remove everything). The lambs actually look better than last year so it will be interesting to see what difference there is this year, if any.

What else did we learn? Unsurprisingly, feed has much to do with it too. We saw that in the effect of lucerne versus grass shown above. Not only did we get to compare grass and lucerne fed lambs, we also had twins on plantain and singles on grass. The plantain lambs were not drenched at all as they were simply too good and clean to do that to (again, a stockmanship type of decision) and the singles were grazing on a deer farm so they were huge and largely unchallenged by sheep worms.

Plantain twins compared to....	advantage to plantain
drenched Twins on lucerne	3.1kg
undrenched Twins on lucerne	6.0kg
drenched twin on grass	6.7kg
undrenched twins on grass	9.6kg

You can do the sums on what 6-9kg of extra live lamb is worth but what this shows is that feed has much to do with a decent weaning weight. The plantain mob of ewes and lambs were all undrenched – no pre-lamb drench for ewes, no pre-wean drench for lambs and nearly every lamb was killable at weaning. Too easy. Plantain may not be the answer for you but substitute "decent feed" for "plantain" and you'll be onto a definite advantage.

We also learned a bit more about worm burdens in ewes but that is another story...

We will let you know how this year's on-farm trial goes and get back to you at the sheep seminars next winter. Maybe tape will have little to do with it this spring. But maybe it will. We shall see.



Yikes! Plenty of tapeworm.

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All orders received at least 4 weeks prior will go in the draw to win 1 of 2 \$1000 travel vouchers.

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SEASONAL UPDATE

HASTINGS/NAPIER

It's been a fantastic spring since the big rains. Animal performance in terms of growth rates has been exceptional as they thrive in a bit of warmth and sunshine.

The soil moisture levels are now slightly below normal and some northerly faces are just starting to turn brown.

Summer crop plant strikes look very good driving around the region and the odd pivot irrigator has started up now to keep them going.

If you haven't checked your breeding bulls yet in preparation for mating, it's time they had their WOF check and BVD vaccination

DAVE WARBURTON

booster.

A pre-wean drench response was favourable from an economic and performance point of view in the presentation that Richard Hilson gave during the winter.

If you are considering checking your drench families this season, it's time to mark 80-100 lambs at pre-wean drench and leave them **UNDRENCHED**.

Ticks are abundant this season and we are still getting the odd case of Theileria causing weakness/death in young stock and in cows abortion.

WAIPUKURAU

At the time of writing a little more rain would certainly be welcome in order to keep the grass growing after such a promising start to Spring. The Americans say "If you aint making the dust, you're probably eating someone else's!" and with that in mind there has certainly been no shortage of dust being thrown up in the wake of our trucks. We have been extremely busy scooting between the district's deer sheds with forecast velvet prices looking very good again this year. Lamb prices are also looking good which is further reason to cross our fingers for rain and with such heavy losses in the September deluge it will be especially important to make every one count. Be mindful of testing to ensure trace element levels are adequate and consider

HARRY WHITESIDE

the benefits of carrying out a faecal egg count reduction test from December to early Autumn. On the cattle side, the breeding season should be underway for many with cows hopefully taking the bull (artificially or naturally!) early on both dairy and beef enterprises. Interestingly, we have seen a number of cases of Theileria this Spring which is probably the result of warmer weather/longer grass favouring ticks as well as the natural spread of disease over time...keep an eye out for lethargic/anaemic stock!

Hopefully by the time of the next newsletter everyone will be looking forward to Christmas and the New Year with animals in great health and continued favourable economic outlook.

DANNEVIRKE

As I write this rain is falling outside, but on the whole it has been a warm and dry start to Summer. Coastal areas are noticeably dry already with significantly less rainfall than average. Going forward it would be great to see some more rain to keep things ticking over!

It's been a fantastic calving season though, with minimal problems around the place and cows in good condition. This has been reflected in early submission rates.

JOHNNY ATKINS

Unfortunately the September storms and rain have resulted in a heap of lamb losses around the place, and this is being reflected now with docking percentages back on most properties.

We are looking at getting into our ram runs soon, and as usual we will contact you to organise a time. It's also a great time to start thinking about bull testing and BVD vaccines for beef bulls.

We hope your season is going well and look forward to seeing you all out and about!

WAIRARAPA

We've had a remarkably busy season over all aspects of our clinic. At the time of writing, the rural districts around the Wairarapa were hanging out for rain. Memories of 2016 are still too fresh to have a repeat of that season. Now I'm seriously hoping we don't have a repeat, but we do need to

mark some decision dates in our diaries. A consistent feature of difficult dry seasons is that those who make well planned decisions early, come out of the dry in much better shape than those that wait and gamble. Comment from farmers all over the

STUART BRUERE

district about our last lambing season was that the first week of September really kicked us in the guts - ewes lambing right at their peak dates; lamb losses were serious. Maybe it's time to consider three or four ram joining dates, in order to spread out lambing and at least partially mitigate the risk of high lamb losses over the peak of lambing season. Sara will be away on maternity leave soon. During this time Anne Ridler from Massey University will join us for 6 months to carry out some of the farm animal veterinary services.

OUR VET TEAM

Napier & Hastings:

Clare Ryan, Dave Kruger, Dave Warburton, Georgina Campbell, Greg Tattersfield, Helen Crawford, Ian Leadbetter, Joao Dib, Mark Matthews, Neil Stuttle, Rachel Griffiths, Richard McKenzie, Roger McKinley, Sharné Boys, Stuart Badger, Veronika Pipe and Vicki Gilchrist.

Waipukurau:

Annelise Enslin, Anyika Scotland, Camille Flack, Caroline Robertson, Geert Gelling, Harry Whiteside, Kathryn Sigvertsen, Lucy Dowsett, Mike Fitzgerald, Nicolette Adamson and Richard Hilson.

Dannevirke:

Corinna Minko, Ingrid Meijer, Johnny Atkins, Kate Matthews, Naomi Barrett, Simon Marshall and Tim Hogan.

Masterton:

Elke Blommers, Jacques Van Zyl, Louisa Broughton, Nicola Haglund, Sandy Redden, Sara Sutherland, Sarah Wolland and Stuart Bruere.



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