

SHEEP MEASLES REVISITED

Amongst concerns of drench resistance and changing climates, we can't forget our old mate the hydatid. Dogs carry three species of tapeworm and the intermediate stage (the hydatid cyst) can be found in sheep. Of particular importance is sheep measles, or *Cysticercus ovis*, which is the intermediate stage for the dog tapeworm *Taenia ovis*. The main impact of tapeworm disease is due to monetary loss from carcass downgrading.



Once compulsory to control on farms, it became the responsibility of individual farmers to control in 1993. Cases tend to peak in early spring. Numbers have reduced over the last decade but still run at about 1 in 100 sheep carcasses with evidence of cysts. In lambs, it can be quite a lot higher than that.

What's all the fuss about?

The tapeworm causing sheep measles can be up to 2m long in a dog's intestine. Six weeks after ingestion of meat contaminated with cysts, a dog begins to shed lots of small tapeworm segments in their faeces. When the dog defaecates all over paddocks, this nicely distributes the infective segments in the environment at which point the sheep can ingest it. The sheep then develop, over a period of weeks, small cysts in muscles throughout the body. It can affect the heart and diaphragm. If the meat of an infected sheep is fed to a dog, the cycle continues! The "sheep measles" name comes from the little white areas that result when a cyst has hardened over a period of months. These cysts are not infective to humans but are unsightly and result in carcass trimming and downgrading.

How to break the cycle

The lifecycle requires that dogs eat infectious meat. Therefore, meat must be rendered harmless.

This can be done one of two ways

1. Freeze meat to -10°C for at least a week.
2. Cook meat to 72°C to kill any cysts.

Other helpful tips:

- Dogs should be routinely treated with anti-cestoidal treatment (Drontal) to prevent infection.
- Keep your offal and home kill areas well clear of dog access.
- Monitor your slaughter records for evidence of down grading due to sheep measles.
- If you're curious about whether your dog has been exposed, there is a blood test available to check.



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*Based on the average days to weaning over three trials at Massey University (2006, 2007 & 2014).



JUNE 2018

A new season begins & we welcome newcomers to our area & quietly hope they haven't brought Mycoplasma Bovis with them. With the slow creep of this disease it seems just a matter of time before someone in our province will become the unfortunate recipient of this unwanted visitor. As a profession, we get regular updates about its spread & steps taken to eliminate/mitigate it. But to be honest, we probably don't know anymore than you do about where it came from & how we are supposed to get rid of it.

I tell you what though, if it turns out that some unscrupulous farmers and an equally unscrupulous vet were the reason this disease made it to our shores I hope they get nailed to the wall. Drug stewardship is becoming more and more important as we find access to certain drugs limited or removed altogether & things we have taken for granted for years, such as Dry Cow therapy are about to be tightened up. So how can a vet on Waiheke Island prescribe drugs to a farm 1600 kms away and claim that those cows are under her care? As Mark Bryan from Vet South said last week "the thought of having to drive 1600kms to a client's farm to do a calving is keeping me awake at night".

Luckily this isn't Foot & Mouth and within reason, you can take effective measures to reduce the risk of it coming onto your farm. Most of them you have already had rammed down your throat in recent months but three spring to mind:

- Well-maintained outriggers on border fences to prevent nose-to-nose contact between neighbouring animals (some BVD risk reduction is a bonus)
- Provision of a clean bucket, hot water, disinfectant and a decent brush for visitors to clean themselves and their gear before they leave the property. With spring around the corner I am generally nagging you about the need for hot water & clean buckets anyway to clean ourselves after a calving. The same principle applies here. If we are able to clean ourselves and our gear properly before we leave your property that means we arrive clean at the next property thereby reducing the risk of disease spread. I'm sure you all prefer to see us arrive in your shed clean rather than still messy from the last job. If everyone makes it possible for us to clean ourselves then no-one will be complaining about dirty vets coming onto their farm possibly bringing nasties with them.
- And the last thing is - know where any new stock came from. Seems simple right? However recent stats suggest only a little over half of all farmers do their NAIT recording properly or even at all. Now I know what you're like when it comes to forms (the Dry Cow Therapy forms are testament to that) but things are about to get tightened significantly with regard to NAIT so how about starting the new season with a resolution to attend to record keeping in all aspects of your farming business. It's only going to become more important in the years to come.

Finally, with winter here many of you will be feeding fodder beet to your stock. While it is becoming a popular supplement, if it isn't done right it can become "the Devil's feed" and you can lose a lot of cows if things go wrong. With that in mind, please read the article in this newsletter & be aware of the risks that come with this feed.

On that note, enjoy your winter break (if you're having one) & we look forward to seeing you in the spring if not before.

After slicing his tee shot into the woods, a golfer heads off in search of his ball, which he finds behind a large tree. After considering his position, and not wanting to take a drop and lose a stroke, he decides to hook the ball around the tree. He swings, the ball hits the tree, ricochets back at him, and instantly kills him. When he opens his eyes, he sees the Pearly Gates and St. Peter standing before him. Am I dead?" he asks. "Yes, my son," replies St. Peter, who looks the man over and notices his clubs. "I see you're a golfer," St. Peter says. "Are you any good?" "Hey, I got here in two, didn't I?"



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ROTAVIRUS ON FARMS WHICH VACCINATE AGAINST IT

Rotavec and Scourguard are vaccines given to cows in late pregnancy to increase the level of Rotavirus antibodies in their colostrum. If this hyper immune colostrum is given to calves in the first few hours of life **and** daily for four weeks, it protects them from Rotavirus scours. So why do we sometimes see outbreaks of Rotavirus scours in mobs of late calves even on farms which vaccinate their cows against it? Well, there are lots of things that can go wrong.



How accurate are your calving dates?

The timing of the vaccination is important. It must be given more than 3 weeks and less than 12 weeks before calving. So if your herd calves over more than 9 weeks, as most do, and you want to protect your late born calves, you will need to vaccinate the early calvers at least 3 weeks before your calving start date and the later calvers a few weeks after. Some farmers choose not to vaccinate late calving cows carrying bobbies.

How high is the level of antibodies in the colostrum?

Some farmers choose not to vaccinate their heifers, perhaps because they are carrying bobbies or because they produce a smaller volume of colostrum. If colostrum from vaccinated animals is diluted with colostrum from unvaccinated ones the level of antibody will be less and therefore the amount of protection reduced.

Antibody levels are highest in the first milking after calving and drop quickly with each subsequent milking. For most cows, the antibody levels in the 8th milking are not much higher than ordinary milk. So if you are serious about giving the highest antibody milk to the youngest calves you need to store colostrum from the first four milkings separately from colostrum from the next four.

First come, first served

First born calves are doubly blessed, their pens are beautifully clean, so the disease challenge is low, **and** they get fresh colostrum containing very high levels of antibodies. As calving progresses the pens get dirtier and the colostrum gets older and more diluted. Rotavirus scours has a marked age immunity. Calves infected in the first week of life can have high death rates, but calves infected when they are more than 4 weeks old generally suffer only mild illness. So the poorer quality colostrum as calving progresses doesn't affect the early born calves - they are already 4 weeks old and fairly immune. It does affect the younger, later born calves. This explains why we sometimes see Rotavirus in mobs of late calves, even on farms which have vaccinated their cows against it.

So what's the answer?

Some canny farmers freeze some first milking colostrum from early calving vaccinated cows and use this to 'spike' the milk going to their last mob of calves. The prevention dose of really good colostrum is 100ml per calf per day. So if your last mob of calves is 20, you need to freeze 28 x two litre containers and feed one a day. Time to start eating ice cream!

NITRATE POISONING

New grass, crops, nitrate poisoning and sudden death. It's that time of the year again!

Signs of Nitrate Poisoning - a desperate situation:

Cattle usually show signs of poisoning 4 to 8 hours after grazing toxic pasture/crops as the nitrate needs to be metabolised into its toxic form nitrite in the rumen before toxicity occurs. We usually get calls to see affected stock around lunchtime, cattle having been put onto toxic pasture that morning. It often occurs on a dull overcast day where the plant is unable to photosynthesize leading to a buildup of nitrates.

Affected animals are drunken, weak and staggery and deteriorate rapidly leading to death. They may gasp for breath and have very muddy grey/grey coloured gums and conjunctiva. If you take a blood sample, it is distinctly chocolate-coloured instead of the normal dark red. However, most animals are found dead.

Animals that have apparently recovered may abort - usually within a week after exposure to high nitrate feeds.

Reducing the risk

Management factors that can help reduce deaths due to nitrate poisoning include:

- Testing new pasture and suspect crops prior to the first grazing. Take a pasture sample in the morning and deliver it to us prior to 10am. We should be able to report the result to you within 24 hours
- Introducing cattle to suspect crops in the late morning or early afternoon. Pastures accumulate nitrate during the night and in dull weather. Sunlight reduces the accumulated nitrate.
- Making sure cattle are not hungry when you put them onto suspect pasture. Provide supplementary dry matter (hay, silage etc) before cattle go onto the break.
- Reducing the time period cattle are grazed on suspect pasture. Allow cattle no more than 1 to 2 hours grazing on the suspect feed.
- Check cattle regularly for signs of poisoning. The toxic metabolite peaks in the blood about five hours after ingestion of nitrate.

Contact us immediately if any signs are noticed. Cows die rapidly from nitrate poisoning and require intravenous treatment with an antidote A.S.A.P.



FODDER BEET

Fodder beet is not in the Brassica family which is why its popularity is increasing. Fodder beet can have much higher dry matter yields and is high in energy, palatability and digestibility, which means if the crop is good this can lead to much higher yields from smaller areas.

With the increasing popularity of feeding fodder beet to dairy cows in Taranaki we are getting more calls to sick cows associated with it. DairyNZ has a good website for how to go about feeding fodder beet:

<https://www.dairynz.co.nz/feed/crops/fodder-beet/>

The important points are **know your crop yield** and **take your time when transitioning cows onto the crop**. Most of the issues we see are during transition. It takes 14 days to properly transition cows onto eating fodder beet. During this time the microorganisms in the rumen are changing to better cope with the large carbohydrate load of the diet. If transition happens too quickly or cows are given more fodder beet than they should be (or there is a breakout) the overload of carbohydrate is fermented in the rumen to cause acidosis. This results in cows with milk fever like symptoms in mild cases through to dead cows in more extreme cases. An excellent way to transition the cows is to feed 2kg of beet for the first 2 days (making up the dry matter total with bailed and hay) and then every second day increase the beet allowance by 1kg. By the end of the 14 days they will be transitioned properly. Feed the fibre in the morning and then in the afternoon feed the crop. **Make sure all the cows can get their fair share of the fibre and the crop**

For beet it is important to have at least 2 hours between feeding the supplement and the crop. It is important to have a second 'safety' fence as cows escaping through the first wire will gorge and get acidosis.

The cows need to eat the tops and bulbs together as the bulbs tend to be low in crude protein and the leaves are high. Tops by themselves fed to lactating cows will cause milk fever. A long feeding face is the best as this encourages less bossing and the cows tend to all get a fair chance at the crop. Ideally, feed under the wire for the correct crop allocation. Be aware how far cows reach under the wire! This can change their uptake significantly.

Be aware of what is left behind. As the cows get used to the crop, they will come back and clean up what was left behind from the previous break and this can cause issues.

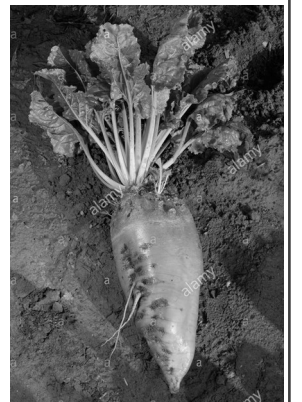
It is important to get your crop tested for its yield and dry matter content so you know exactly what you are feeding the cows. The crop can be deceiving, and levels that are in books are only a guide.

Keep a careful eye on all cows in the group throughout the fodder beet feeding period. You are looking out for cows that separate themselves from the mob, are not eating, scouring and maybe dehydrated, not doing well, have bloating or milk fever like symptoms, "downer cows" or in the worst cases dead cows.

In the worst-case scenario, a herd breakout can result in large numbers of dead and very sick cows requiring ongoing treatment and management. If this happens immediately call us but move all mobile stock onto a fresh break with plenty of hay dusted in causmag in the meantime. Treat any downer cows with metabolic solutions. Treatment will generally require drenching the entire mob with large amounts of causmag and sodium bicarbonate to offset the acid produced in the rumen.

Key points: -

- Transition period from grass to crop needs to be 2 weeks, gradually increasing the amount of crop.
- Ideal diet is 7kg fodder beet, 3kg bailed, 2kg straw/hay. (Never feed > 10kg of beet 35% fibre ideal).
- Need long feeding face. Safety fence is important - breakouts can be dangerous.
- Feed supplement in morning and beet in afternoon.
- Don't do time transition, cows can eat too much beet in an hour - quantity allocation only.
- Have crop measured and tested so you know exactly what you are feeding.
- Need to feed tops and bulbs together.
- Rumen acidosis can be an important issue - why fibre is so important. Signs - depression, dehydration, scouring, bloating, milk fever, sudden death.
- Any cow "not doing" - take off crop straight away (subclinical acidosis).
- Never feed frosted crops - potential for bloat.
- Nitrate poisoning can be an issue.
- Transitioning back to grass doesn't appear to be an issue.



A Baptist pastor decides to play hooky on a Sunday to play golf.

He's playing the best golf of his life when an angel asks God,

"Are you going to let this slide? Do something!"

So, God says, "Watch this."

The pastor hits a 425-yard tee shot and the ball goes in the hole for a double eagle.

The angel asks, "Why did you reward him?"

God says, "Who is he gonna tell?"