



LAMINITIS IN HORSES

DEFINITION: LAMINITIS ="inflammation of the sensitive lamellae in the hoof leading to failure of attachment between the distal phalanx and the inner hoof wall."

Whilst there are a number of causes of laminitis, carbohydrate overload with sugars from ryegrass (fractals) are the major trigger factor in Hawkes Bay. Grain overload where horses gorge on hard feed or grains has a similar effect. An excess of carbohydrate from any source ferments in the hind gut and leads to production of lactic acid and a consequent drop in pH. The normal resident bacteria then die and release toxins which are absorbed into the bloodstream. Although the exact mechanism of action of these toxins in the hoof is poorly understood they lead to inflammation and damage to the sensitive lamella (leaves) that connect the pedal bone to the hoof wall. Because there is no room for expansion within the hoof capsule any swelling is extremely painful for the horse. If the injury is severe enough separation between the bone and hoof wall occurs, and due to the pull of the deep flexor tendon on the heel of the pedal bone this bone tends to rotate within the hoof capsule (founder). The bone may also sink down in the hoof. Other causes of laminitis include any major infection such as metritis (often secondary to retained placenta), bowel infection or pneumonia. Concussion from extreme exercise on hard surfaces may also precipitate the onset of laminitis.



The forefeet tend to be worse affected than the hind because a larger proportion of the body weight is carried by the front legs. Initial symptoms of laminitis include obvious heat in the hoof, an increased digital pulse and a reluctance to move. If severe the horse may stand in a typical "rocking horse" posture in an attempt to take some of the weight off the front feet.



In chronic cases the hoof becomes deformed with transverse growth lines across the wall from the disrupted hoof growth. Eventually the dorsal hoof wall may become concave. In very severe cases the entire hoof wall may separate!

Treatment of acute laminitis needs to be immediate in order to prevent irreversible damage within the foot. Ideally this should occur PRIOR to symptoms if an incident of grain overload or grass engorgement has occurred. We treat these cases very seriously as once the inflammatory process has started in the hoof it is very difficult to control. Drenching with large volumes of paraffin oil in an attempt to speed up the bowel and eliminate excess carbohydrate is usually carried out. If practical standing the horse in cold water (ideally ice water) has been proven to provide good protection to the hoof structures. Treatment with analgaesics such as phenylbutazone (bute) will assist in pain control once the horse is sore, but unfortunately does not seem to help much in stopping the inflammatory process. Base line x-rays are imperative and ideally should be taken in every laminitis case.

A very important part of treatment in clinical cases is to alleviate the force of the deep flexor tendon on the pedal bone to try and prevent rotation of the bone. This is done be elevating the heel using pads, or where this is impractical standing the horse in deep soft sand. This allows the toe to sink into the sand and had been shown to help. Shoes should be removed in acute cases.

Once the initial inflammatory process has run its course the foot needs to be x-rayed and a rehabilitation plan initiated. This usually includes specialised shoeing, often making use of "rocker shoes" with elevated heels.



There are number of ways of preventing laminitis. In overweight animals and especially ponies restriction of carbohydrate intake is vital. Limiting their access to high sugar grass is most important and where animals are grazed for a few hours a day mornings are the safest period. Grasses build up sugar during the sunlight hours and use these reserves at night so late afternoon/ evening grazing should be avoided. Hay can be soaked in water for a few hours prior to feeding – this leaches a proportion of the dangerous sugars out. "FOUNDERGUARD" is useful in high-risk periods. This is an antibiotic which specifically targets the bacteria in the large bowel responsible for fermentation of fructan sugars. It is a very safe product which does not get absorbed from the gut and can be used long-term.

AI IN BEEF CATTLE

Have you considered the use of Artificial Insemination in your beef herds? If not, why not?

Here are a few facts and figures for you to consider

A fixed time insemination programme means we can synchronise the mob of females to ovulate within a set timeframe allowing insemination to occur in one yarding, with no heat detection required (although can be helpful).

What is involved?

- Beef heifers are the obvious mob of choice because you don't have to draft off calves. But cows actually work even better if you can put the effort in.
- Three yardings over a 10 day period is required where we visit and administer hormones to get the ovaries cycling to produce a large egg at ovulation.
- Heifers need to be well grown, but not obese, and must be cycling before the programme starts for best results.
- Mineral levels (copper, selenium, cobalt) need to be adequate as they should for any mating!!
- We normally achieve 60% average with a range of 10% either side in heifers.
- In cows expect 10% higher result as long as the cows are calved >45days, and there were no complications at calving and they are on a rising plane of nutrition post calving.

NB. If you are a scone doer in the yards with your cattle, then this isn't the right tool for you. Cattle need to be quietly handled each time!!!

So why do it?

Synchronised AI means a concentrated calving window, making it less time consuming to monitor heifers. A single AI day usually translates to a 10 day calving spread at calving time.

- Al allows you to use the best bulls in the business (the same as stud breeders) meaning faster genetic gain
- Utilising your heifers and AI is a double whammy for maximum genetic gain
- Proven semen means less likely to have problems with oversized calves attributed to the bull's genetics.

• You don't have to check if bulls are working or have broken down Have you considered an overmating strategy with AI and no bulls at all?

Putting 60 heifers to AI to achieve 40 in calf replacements is <u>economically very competitive</u> as opposed to having two bulls retained for 3 years, as well as the mentioned use of the best genetics in the business. This is particularly so if your mob of heifers is 50 or less when using only one bull is a risk and two bulls is hard to justify.

It costs approximately \$100/head to complete the whole programme, including semen at \$40/straw; the biggest variable is the price of semen.

We have a spreadsheet we can take you through to look at the economics of this in detail. But just imagine a 10 day calving window with an even line of calves for future breeding/sale.

We can co-ordinate the whole programme for you from drug administration, to sourcing and storing semen to inseminating the females. This requires planning at least 4 weeks in advance of the AI date you have in mind.

The Beef and Lamb Genetics Progeny test sites at Whangara and Tautane are now big advocates of AI, and at Whangara they are now using extra semen to go over the commercial cows beyond the scope of the BLG requirements. Give us a call if you would like to discuss in more detail.

ANOTHER BLOODY BEARING?

RICHARD HILSON

The possibility of vaginal prolapse is a curse that breeding ewe flocks face every spring. The more lambs a ewe is carrying and the closer we get to lambing, the more farmers get nervous about the potential for an "outbreak" of bearings. Given that ewes are full of lambs (usually two or three) plus all the associated fetal membranes and fluids, plus full of grass as they try to maintain their body condition close to lambing, it can be quite a battle to replace a prolapse and to get it to stay in place until lambing actually occurs.

The leading study into vaginal prolapse in ewes was done out of Vet Services in the early 2000's. An interesting sideline in the



numbers and information generated was that survival of affected ewes was poor, with only about 45% of affected ewes in the seventy study farms in CHB surviving. Key messages we have pushed since then are that many bearings can be treated and that there is money to be made in saving those ewes as they are carrying multiple lambs.

A careful, clean technique and a proven method for holding the prolapse back in the right spot usually has a happy ending. Having had many one on one discussions with farmers regarding improved handling techniques, I know that we can save most ewes (as well as reduce the incidence with some understanding and planning in future). In one case it was assumed by staff that bearing ewes all died but under new management nearly 100% survived. Another farmer who suffered nearly 150 bearings in a high performing flock one recent spring reported that he had 100% ewe survival, even though he felt that sounded unbelievable. It is therefore respectfully suggested that if your reaction to those stories is to throw your hands in the air and say "not here, mate", then you could definitely do better than your current bearing survival rates.

Here is a relatively new and practical method for retaining those bearings. Rurtec's BEARIN harnesses are remarkably cheap at about \$25 and can be used over and again. They are non-invasive for the ewes (no foreign bodies inside them, no sutures) and they are also a big step up on the baling twine method that is popular in Southland as the harness is infinitely adjustable and more ewefriendly. They also have more than one potential use per season as bearings in in-lamb hoggets are also an occasional issue for top ewe flocks.

While it would be nice to think that you would never get bearings in your flock, a small investment in a good technique for handling bearings plus some of these harnesses should pay big dividends. It is always a bit presumptuous trying to predict the payback given the way the lamb schedule has been swinging around lately but with two lambs at \$100 and a live ewe to sell at weaning (don't try to breed her again as two thirds of ewes that have had bearings will prolapse again the following year), you have a choice of \$300 or \$nothing. An easy call?

DAVE WARBURTON

LOOKING TO TAKE YOUR SHEEP BREEDING TO ANOTHER LEVEL, MAYBE?

Have you considered the use of artificial insemination in your ewe flock? This technology may be old hat to some stud breeders but it may also have slipped under the radar if you are a commercial breeder.

Vet Services have a long history with Al in sheep. We got really busy in the nineties with the Awassi and East Friesian genetics becoming available in NZ for the first time. We were involved in mass insemination of tens of thousands of ewes with Awassi semen as the flock was expanded and as the live export option was exercised. Many HB farmers were involved in that. Similarly, but on a much smaller scale, the release of East Friesian genetics did involve a lot of commercial farms and stud farms alike but the numbers were way smaller- many farms did 30-50 ewes and introduced the breed to their flocks through the resulting progeny. While we have not seen use of Al on that commercial scale since, Vet Services remain heavily involved with the national Central Progeny Test and with some smaller new generation progeny tests as well as some individual farm programmes.

Is this an option for commercial farms? Yes, it is. Importantly, there are some well proven genetics available to you now and the best rams in the country have been identified for you through SIL and some of the aforementioned progeny tests. While you can usually source these genetics through offspring of these animals, modern technology also lets you source those genetics directly through semen. Owning some of the best ram semen in the country is well within reach at \$25-\$50 a straw.

Is it practical? Again, yes. Sourcing the semen is relatively simple and we can help make that happen. The semen is sent to our clinic for storage well before the AI date and we take care of the paperwork too. The ewes need programming so they all cycle at the same time and that can be a wee bit fiddly if you've never done that before. And you will want a few vasectomised teaser rams with harnesses on- not an expensive operation to have done (if you are a ram, that is!) and this is probably the thing that actually requires the most fore-thought as the rams need to be vasectomised at least six weeks before the programme unless you are buying or leasing some. You will need some labour to help on the day as the ewes need to be hoisted in and out of the AI cradles- not back breaking but many hands do make light work. Is it costly? No. The CIDRs used to programme the ewes cost about \$8 each and in most cases you won't need anything else unless you want to breed the ewes at a funny time of year. Al itself costs \$15-\$25 per ewe depending on numbers and we supply vets and technicians to handle the business end of the job.

Is it reliable? We usually get results between 70-80% non-return and these numbers would be the envy of the dairy industry. Attention to detail right from the start of a programme is paramount for a good result and we have seen all the pitfalls so can make sure they are avoided.

All things considered, Al might be a really easy way for you to source great sheep genetics if you want to improve your breeding flock. As the final cost per lamb on the ground is likely to be \$70 per lamb (at say 70% conception and about 140% lambing in the Al ewes) it won't work if you are going to kill all the progeny- but it will add to your ewe flock and will also provide some top ram lambs that may be useful in your ram flock. So if you are in the stud game with a recorded flock or you are a top commercial breeder with an eye to the future, artificial insemination could well add some real value to your flock, especially when you access great genetics for several years or generations.

Interested? Please ring Helen Taylor and Mark Matthews in Hastings or Richard Hilson in Waipukurau. (See front cover photo - Sheep A.I. in action).

POLITICS AND PET FOOD

Political issues are dominating the news right now and it seems that opinions on cat and dog nutrition and those on politics have something in common. Both seem to engender very polarised opinions in people.

We don't want to change political opinions but would really like to be part of the conversation when it comes to what constitutes top feeding for dogs and cats. It can be frustrating for us when we are met with fixed opinions that seem at times akin to fad, fallacy or fiction rather than a considered opinion that we strive to supply.

It is tempting to relate the raw food diets popular for dogs and cats to the 'paleo' trend some people are keen on for themselves. We see a lot of people telling us that they have put their pups on a raw mince and vegetable diet. This seems to be turning the clock back to when this was the norm over 30 years ago. Back then we saw lots of problems from this diet mainly based around the fact that it had an unbalanced Calcium/Phosphorus ratio that led to bone and joint problems (yes, quite a few of us were around back then). We tried to balance this up with all sorts of supplements but this was really quite 'hit and miss' as to the end result.

The availability of quality controlled, balanced, and scientifically tested diets made it an easy decision to recommend them from a vet's perspective since the guesswork was removed so ensuring the right macro and micro nutrients were present in the right quantities. The problems such as osteodystrophia that were common became a thing of the past.

Another benefit seen with the processed food is that it is sterilised so that there is no chance of infection being passed on from the raw ingredients. This is a very pertinent issue for us because we now see gastrointestinal upsets commonly with the popularity of minced raw poultry especially. Young animals that are not yet

ROGER MCKINLEY

totally immune competent are most at risk. Older animals seem far more tolerant of this, however we do have concerns around the potential for our pets to pass on bacterial contaminants to the human members of the family.

The first year of an animal's life is the most critical in terms of nutrition and it has given us a lot of satisfaction seeing the improvement in lifelong health promoted by the development of critically tested foods. It seems a shame that some animals aren't benefitting from these lessons learnt a long time ago and now not being applied.

Another observation that is a little ironic, is that most pet animals these days get too much of one nutrient that mirrors our own problems.....Too many calories!!

This is not the case with our canine athletes....the working dogs that right now are contending with freezing weather and high calorie needs on the job can struggle to get enough. So our recommendations are quite different depending on what our expectations of them are. We welcome you taking the opportunity to discuss these issues with us.....but not politics!

We have been asked "why do you recommend a yearly health check?" with the implication that this seems often.

Well.....it is just a convenient time frame BUT consider that one year for a dog is equivalent to about seven years for a human! A lot can change in that time and we are keen to prevent or recognise trouble while it can be easily sorted.

What bone do humans have that dogs don't? A Clavicle or Collar bone

What bone do dogs have that humans don't? Male dogs have a penile bone

SEASONAL UPDATE

HASTINGS/NAPIER

The weather bomb brought plenty of flooding to our area with snow towards the ranges but didn't hang around for long. Plenty of heavily pregnant ewes got a touch of milk fever and the light ones had a bit of sleepy sickness along with a few downer dairy cows but we haven't heard of any disaster situations. Dairy cow calving is now underway, the usual nasty calvings at the start (good for our calving points competition). Lambing is well underway so all systems

WAIPUKURAU

After the driest summer in recent history, the best autumn in recent history we now had the wettest winter in recent history! Never a dull moment. The last month has been wet but mild, so at the time of writing the grass is growing. Farm cover on most farms is looking good, which is nice as the start of calving is upon us.

Teat sealing dairy heifers has been a large job this season. The number of heifers teat sealed this year has grown, with a lot of repeat business on farms that have seen the benefit of this exercise in past seasons. Efficiency of our teat sealing team, great results regarding reducing clinical calving mastitis on farm and word of mouth has

DANNEVIRKE

Like elsewhere, the big talking point has been the snow-fall mid-July. The heaviest falls were east of town and were followed by a fair bit of rain which caused some flooding. This affected some early lambing and calving although thankfully was too early for most.

It provided some excitement for the school holidays but the novelty soon wore off. The main disruptions were caused by slips, flooding, collapsed trees and power outages. The impact on animal

WAIRARAPA

The great winter storm in mid-July was one that won't be forgotten quickly, especially coming after an already muddy winter. Hopefully by now most of you are getting tracks and fences sorted out and are ready for lambing and calving to start, with early mobs already started. Farmers with covered yards definitely appreciated them this year. Nobody knows what August and September will bring. If the muddy conditions continue into spring be prepared for animal health issues such as mastitis in ewes and cows, joint ill in lambs, and scald or footrot. Please call us at any time to discuss how to prevent or treat these issues.

We saw a lot of leptospirosis cases this autumn, in sheep and in farmers. The winter flooding will likely spread those bacteria so be aware of this disease. If your animals are not vaccinated, then make sure to provide gloves to your staff (and use them yourselves!) for handling afterbirths, assisting with calvings and doing home kill. This will help make sure you and your staff are protected from this potentially serious disease. Vaccination is the best way to prevent this disease.

Speaking of lambing and calving, congratulations to our retail

DAVE WARBURTON

shifting into 5th gear on farm. Ewe scanning has ended with some great results which isn't surprising given the mild moist autumn. Hogget scanning is now underway but it's too early to tell what the trend is. We have a new Vet, Joao Dib, starting with us in August. Joao is originally from Brazil but has been practicing for many years out of Feilding.

GEERT GELLING

resulted in a fully booked trailer, working over the Dannevirke, Waipukurau and Hastings area.

Booking early next season will be important for new takers. The season of seminars is here as well: dairy seminars in Dannevirke and Waipukurau, featuring presentations on calf rearing and prevention of lameness, have been well attended by farm managers and staff. Sheep seminars are due to happen this week (as I write this), with bookings rolling in. Calving is upon us. Our large animal vets are looking forward to that season and gearing up for some honest calving work, trying to collect points for the Vet Services Group calving cup.

TIM HOGAN

health hasn't appeared to be too bad, although I did see a case of unfortunate poisoning of some beef steers who consumed some Tutu brought down in a slip.

It's a busy time on farm as calving gets into full swing and lambing gets under way. We are keen to get into it and look forward to seeing you around and about. All the best.

SARA SUTHERLAND

manager Kate Southey who had a healthy baby boy on July 19th.

Those of you, who are vaccinating heifers against BVD, remember that animals that have never been vaccinated need two shots before mating. Mating seems far away, but have a look at your BVD plan because the first shot for heifers might be as early as next month for some of you. If you haven't got a BVD control plan, give us a call at any time to discuss timing of vaccination, or any other aspects of this fascinating disease.

Stu and Sara continued Stu's body condition scoring project this winter. The body condition scores of ewes were recorded on 11 local farms after scanning, following scores recorded at weaning and mating. Body condition of ewes at scanning was good on most farms, with a tail starting to develop in late July. Those good body condition scores will pay off with better lamb survival and preweaning lamb growth. We know from scanning results that some of you are looking forward to lots of triplets.

Lambing and calving can be stressful times. Remember to take care of yourselves, and each other, and remember that summer is coming!

OUR VET TEAM

Napier & Hastings:

Waipukurau:

Dannevirke: Masterton: Clare Ryan, Dave Kruger, Dave Warburton, Helen Crawford, Helen Taylor, Ian Leadbetter, Joao Dib, Mark Matthews, Neil Stuttle, Rachel Griffiths, Richard McKenzie, Roger McKinley, Sharné Crous, Stuart Badger, Veronika Pipe and Vicki Gilchrist. Annelise Enslin, Anyika Scotland, Camille Flack, Caroline Robertson, Geert Gelling, Harry Whiteside, Kathryn Sigvertsen, Lucy Dowsett, Mike Fitzgerald and Richard Hilson. Corinna Minko, Ingrid Meijer, Johnny Atkins, Kate Matthews, Simon Marshall and Tim Hogan. Elke Blommers, Jacques Van Zyl, Louisa Broughton, Nicola Haglund, Sandy Redden, Sara Sutherland, Sarah Wolland and Stuart Bruere.



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