

# Browser's Bulletin in the

# Hunter



## Browser's Bulletin 50

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Kylie Greentree

District Veterinarian

Hunter Local Land Services

### Interesting Cases of Lameness in goats

#### Angular limb deformities

A friend and District Veterinarian from the Western LLS recently sent me some photos of a case of **Epiphysitis** in Kalahari Red goats at Coolabah, that I thought everyone would be interested in seeing. The producers first noticed the limb deformity in a few young bucks at marking that were still on their mothers and several 12-month-old does that were heavily pregnant and were on high quality feed consisting of a mix of clover, cocksfoot, trefoil and buffel grass. All the affected goats were in good body condition with no other signs of ill thrift or lameness.

**Epiphysitis** occurs due to an imbalance of the Calcium: Phosphorus ratio. The lesion involves unequal growth rates across the growth plates of the long bones. It is most commonly seen in rapidly growing kids (usually males more so than females) and in young does in late pregnancy or in the initial stages of their first lactation. This is exactly what the producer was seeing on her property.

As you can see from this photo, the front legs have a bowing deformity which will lead to lameness, reluctance to walk, arched back and soft swelling around the joints in the legs and progress to foot deformities. Management of epiphysitis in young goats is via ration analysis and correction. These goats were on a high calcium diet, so



nutritional modifications were required to bring the calcium: phosphorus ratio back to a normal level (approximately 2:1). The kids were weaned from the does and put into a small containment paddock where

they were fed a ruminant pellet, access to hay, phosphorus supplementation and native pastures. The pregnant does were also moved into a paddock with native pastures, phosphorus supplementation and hay.

Mild cases of epiphysitis often resolve without long lasting damage to the joint, however, severe cases may have permanent damage and lifelong lameness issues. Improvement can be seen within a few weeks of changing the diet. The Coolabah producer has noticed improvement within 3 weeks in those goats that had mild limb deformities, those with more severe limb deformities have shown little improvements and will most likely, need to be culled.

There are a number of other nutritional causes of lameness in goats linked to imbalances of the calcium: phosphorus ratio. Vitamin D is essential for the metabolism of calcium and phosphorus in the body and so in some areas where they are not getting enough sunlight, the kids will develop an overall calcium and phosphorus deficiency and defective calcification of growing bones, enlarged growth plates, stiff, lameness and unwilling to stand with bending of the long bones. This is called **rickets**.

Another condition, **Osteodystrophia fibrosa** is caused by an imbalance of the Calcium: Phosphorus ratio. With this condition there a secondary calcium deficiency due to an excess of phosphorus in the diet. The Calcium: Phosphorus ratio in **Osteodystrophia fibrosa** is 1:2.5 or greater (should be 2:1). The clinical signs of this condition include, poor appetite, lameness, bilateral swelling of the bones of the face and jaw, soft long bones that fracture easily.

All these conditions present with similar clinical signs and are caused by an imbalance in the Calcium: Phosphorus ratio. They are not conditions that I have come across here in the Hunter Region, but they could certainly occur depending on the dietary management of your stock. If you have any questions about limb deformities due to a calcium: phosphorus imbalance, please drop me an email at [kylie.greentree@lls.nsw.gov.au](mailto:kylie.greentree@lls.nsw.gov.au)

## Footrot in the Hunter Valley



Last week, I visited a property in the lower Hunter where the producer had noticed lameness in his goats on and off over the last 3-4 years. The goats had originally come from many locations across the Hunter and unfortunately their medical history was unknown.

A wet environment with long pasture commonly leads to an infection of the skin between the toes, called interdigital dermatitis, but in the presence of the bacterium *Dichelobacter nodosus* there is rapid spread of the infection to the sole and hoof wall, this is called Footrot. When the conditions are ideal, (warm, moisture and long pasture) footrot will spread rapidly through a herd. Footrot is a whole herd problem, there will be multiple lame animals and usually lame in more than one foot. Many of the animals will be feeding on their knees to avoid the pain of being on their feet. When the feet are trimmed, there will be interdigital dermatitis, and underrunning and separation of the sole and hoof wall and often a foul smell of decomposing tissue. For more detailed information on Footrot, check out Browser's Bulletin 32.

<https://www.lls.nsw.gov.au/regions/hunter/newsletters>.

Footrot is a notifiable disease, so if you are noticing lameness in your flock/herd every time there is moisture around, then please give your local District Veterinarian a call and we can investigate what is going on.

It is important to be aware that we are seeing cases of footrot in the Hunter and ensure that producers have strict biosecurity measures in place to avoid bringing

footrot onto their property. When purchasing stock, always ask for a National Sheep/Goat Health Statement. [https://www.farmbiosecurity.com.au/wp-content/uploads/2019/03/National-Goat-Health-Declaration\\_nonfillable\\_241016.pdf](https://www.farmbiosecurity.com.au/wp-content/uploads/2019/03/National-Goat-Health-Declaration_nonfillable_241016.pdf) This statement asks questions about multiple diseases (including footrot) that you do not want to introduce onto your property. All new animals should be ear tagged with an approved NLIS tag and arrive with either a National Vendor Declaration or a Travelling Stock Statement. It is the responsibility of the purchaser to transfer these animals onto their NLIS Database account within 2 days of the movement. Any new introductions should be quarantined in a paddock away from your home stock, given a quarantine drench, vaccinated with a clostridial vaccine, and observed for any health issues.

Properties that are known to have virulent footrot, are placed under a Biosecurity Direction (Quarantine), which prevents the movement of sheep and goats from this property except straight to slaughter under a permit from an authorised officer. Getting rid of footrot from your property can be a massive ordeal which either involves culling the herd or developing a 'Footrot Eradication Plan' with an authorised officer, which can involve years of examining, treating feet and culling those that are affected.

## **KEEP FOOTROT OFF YOUR PROPERTY IN THE FIRST PLACE!!!**

If you have any questions about footrot, please do not hesitate to drop me an email at [kylie.greentree@lls.nsw.gov.au](mailto:kylie.greentree@lls.nsw.gov.au)

## **References:**

Matthews, J. 2009. Diseases of the Goat (3<sup>rd</sup> edition)

<https://www.msdivetmanual.com/musculoskeletal-system/lameness-in-goats/epiphysitis-in-goats>

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[https://www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0015/102381/Primefact-1533-Footrot-in-Sheep-and-Goats.pdf](https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0015/102381/Primefact-1533-Footrot-in-Sheep-and-Goats.pdf)

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