



Survey for skin lesions NOT suspect to be LSD

Hi all

Good seasons can also bring different disease profiles. The SDI this issue is an alert to regional outbreaks of Blackleg - a costly reminder that routine vaccination is a great investment.

NOT LSD!

NABSnet practitioners are invited to participate in a project to sample cattle skin lesions that they see during routine work that are NOT suspect LSD cases. These submissions can be invoiced at \$500/property.

This will help us to better understand what other skin conditions are occurring and contribute to our 'evidence of absence' of LSD. Sampling kits and flyers have been distributed to many practices. Contact your NABSnet government vet, or me, if would like to be involved but haven't received the kits yet. More info below.

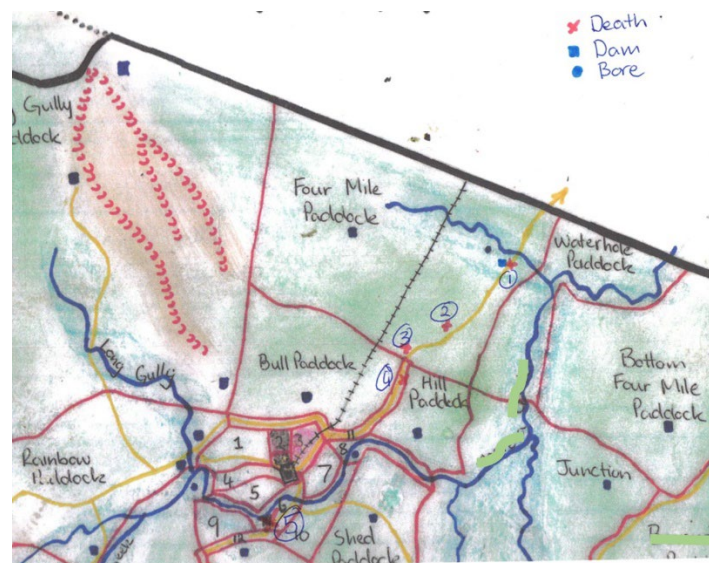
Cheers
Kev



Sudden death in Brahman calves in Central Qld

In March and April 2023 seven of a mob of 269 Brahman calves aged 5-6 months died suddenly on a property in Central Queensland. Two calves were found dead. The others died within a few hours of being noticed lethargic and becoming recumbent without signs of struggle. One calf was seen salivating and lame before death.

The calves were in good condition and of weaning size, still running with their mothers. On mustering 7 more calves were missing. All the deaths and missing calves were from the same paddock. Following a very good wet season there was abundant grass and forbs. The deaths were seen near the tracks or in the yards after mustering. The calves in that paddock were the only mob on the property that had not yet been vaccinated with 5 in 1.



Post mortem examination was performed on a 6 month old animal in excellent body condition that died about 2 hours previously, after the mob was mustered. There was no evidence of struggle prior to death.

- There was a small amount of straw-coloured fluid in the peritoneal cavity and about 5-10 ml of dark blood in the pericardial sac.
- Paintbrush haemorrhages were visible on the surface of the heart especially on the right side, auricle and apex of the heart.
- The lungs and kidneys were congested but no lesions were seen.
- The rumen, liver, spleen and intestines appeared normal.
- The abomasum had sparse ecchymotic haemorrhages on the mucosal surface.
- A small paintbrush haemorrhage was observed on the lumbar muscle. There was no evidence of swelling, discolouration or emphysema in the large muscle groups.
- The brain appeared grossly normal.



Haemorrhages visible on the cardiac surface

Field differential diagnoses were:

- *Clostridium chauvoei*, or other Clostridial species
- Poisoning by toxic plants:
 - Cyanide (*Eremophila maculata*, *Eucalyptus cladocalyx*)
 - Cardiac glycosides leading to sudden death with exertion (oleander, rubber vine, mother of millions, *Adonis microcarpa* [pheasants eye], *Digitalis purpurea* [foxglove], *Corchorus olitorius*)
- Arsenic from an old dip (although none was recorded in the paddock involved).
- BEF

Laboratory assessment: Fresh and fixed samples of heart, lung, liver, kidney, spleen, skeletal muscle and brain were submitted, along with aqueous humour, joint fluid, peritoneal and pericardial fluid.

- Analysis of the aqueous humour ruled out nitrate/nitrite and cyanide poisoning.
- Culture of the liver was negative for *Haemophilus* spp
- Fluorescent antibody tests were positive for *Clostridium chauvoei* in the heart and skeletal muscle and *Clostridium novyi* B in the skeletal muscle.

Histopathology of the heart showed acute, severe myocarditis, epicarditis and endocarditis with numerous scattered Gram-positive bacilli within affected areas. Skeletal muscle also showed multifocal, acute, severe degeneration and necrosis with haemorrhage and clumps of Gram-positive bacilli. There was moderate expansion of fascial tissues by clear spaces (putative emphysema).

Diagnosis: Blackleg

Recommendations:

- Immediate actions: Prophylactic vaccination for clostridial disease (the owners were mustering the mob to vaccinate the calves at the time of the last deaths).
- Long term preventative measures: Ensure the vaccination program has initial vaccine and booster completed by 5 months – so they are protected during weaning.

It is likely that the property lost 14 weaners in this significant disease event (those found dead, and those missing). Animals are usually sold at 2 years for \$2-2,500, so this represents an economic loss of approximately \$30,000.

Post script: Two nearby properties have also lost 2 and 25 unvaccinated animals in similar circumstances – in what appears to be a good season for feed, and Blackleg.

NABSnet cattle skin survey

What cattle skin lesions are out there? NABSnet vet practitioners are invited to participate in a short-term project to examine cattle skin lesions across the north. Of course any suspect LSD lesions should be treated as EAD-urgent. But there is also value in looking at other skin lesions to confirm that they **aren't** LSD.

Samples collected from skin lesions observed during routine cattle work can be submitted to the labs to get a confirmed diagnosis, and contribute to our 'evidence of absence' of LSD. Each property submission can be invoiced through NABSnet for \$500 + freight where relevant.

This project will give us a picture of cattle skin lesions, confirmed by lab examination.

It also gives an opportunity to remind producers and people around the cattle yards that watching cattle for skin lesions is important. But it needs to be very clear that these are NOT suspect LSD cases. The project is surveying skin lesions that occur from other, often common, causes.

To be involved, or get more information, contact Kevin now on 0427 433 244.

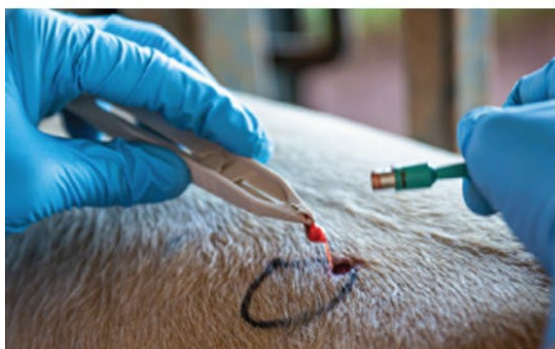


DERMATOPHILOSIS - Pyramid shaped hyperkeratotic lesions extending from the skin surface. Note the dry granulation bed beneath a lesion that had been 'plucked'.

From: Libby Read, Dermatophilosis in weaner cattle,
<http://www.flockandherd.net.au/cattle/reader/dermatophilosis.html>

THE PROCESS

- NABSnet practitioners who are going on property to do routine work identify cattle with skin lesions and draft them off for sampling. Up to 2 animals with a similar clinical condition to be sampled, for as many clinical conditions as seen on that property (eg 2 animals with Dermatophilus, 2 with papillomas).
- LSD sampling kits will be supplied, with a standard submission form and simple supplementary form. An info flyer for the property owner will also be supplied.
- What to do to send samples:
 - **Photograph** the lesions
 - Fill in the **history** and **description** of the lesions on the submission form
 - Collect two biopsies from each animal: a **formalin fixed** and a **fresh sample**
 - Collect **serum and EDTA blood from each animal** sampled - NOTE this is not required in WA (different lab protocol).
 - Pack the samples and **send to the state Lab** with the lab submission and supplementary forms, to arrive the next day.
 - **Email the photos** to the lab (or include with the submission).
- Notify Kevin Bell that the samples have been sent and get OK to send an invoice.
- Report the results to the property owner (no written report needed).



[More info on the cattle skin survey](#)



NABSnet

Northern Australia Biosecurity Surveillance network

Cattle Skin Survey - 2023 dry season

Your participation provides the livestock industry with evidence on what is typically causing skin lesions in cattle in northern Australian

What it involves:

- Your private vet takes skin biopsies from affected cattle
- Submits them to a laboratory for a confirmed diagnosis
- Discusses the results and any management implications
- All costs subsidised by the project









If you suspect an EXOTIC DISEASE call 1800 675 888

April 2023

Flyer with information for producers involved



Key NABS SDI network contacts

Kevin Bell, NABS Vet Adviser

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or visit www.nabsnet.com.au

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Newsletter sent on Kevin's behalf from the team at Harris Park Group

Let us know any topics you'd like to see covered here.