



#37 | 27 June 2022

## Zoom in 4th July evening

Hi everyone in NABSnet

There are now over 50 private vets across the north who are part of our NABS network and about another 50 government field vets and laboratory pathologists – so a great team.

And the need for our involvement in biosecurity surveillance has never been higher with FMD and LSD both spreading in Indonesia. Veterinary surveillance in the north is crucial for early detection if an incursion does occur, and to provide our trading partners with confidence that we are in fact free of these diseases.

Cass Wittwer will host a Zoom info and discussion session for us next Monday - 4<sup>th</sup> July. There will be an update from Indonesia by Ross Ainsworth, info about the Australian Govt response on LSD by Beth Cookson and an opportunity for us all to discuss how we can be involved. It is a 'must attend' in my diary and I hope to see many of you there. See below to register.

And Graham Mackereth has been crunching surveillance data – based on input from vets at the Broome Masterclass and subsequent data from WA practices combined with data from lots of other sources. More about this below.

**Cheers**  
**Kev**



## 4th July - NABSnet Zoom meeting

### LSD and FMD at our doorstep – being prepared is key!

An opportunity to hear the latest info and to discuss what roles the NABSnet vets can play in the north, including:

- Quick primer on FMD and LSD – Cass Wittwer
- Update from the field in Indonesia – Ross Ainsworth
  - National LSD arrangements - Beth Cookson
- Practical LSD diagnostics for northern Australia – Lil Stedman et al
  - Surveillance tools – Izz MacPhillamy
- Private vet perspectives – NABSnet vet panel and Zoom participants

When – Monday 4th July - Qld 7.30-9.00pm / NT 7.00-8.30pm / WA 5.30-7.00pm

Where – By Zoom - Free

[Register here](#)

## On the ground in Indonesia

If you didn't see the recent article by Ross Ainsworth in *Beef Central*, it's worth a look. The magnitude of the impact of FMD within Indonesia is sobering - "[FMD vaccine desperately needed to avert Indo catastrophe](#)"

### Some quick links on LSD

[NABSnet hub page](#)

[Sample collection poster](#)

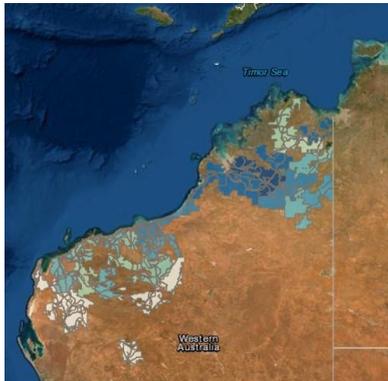
[Sample collection video](#)

## Vets vital to maintain 'confidence of freedom' in the north

For the first time the contribution of work by private vets to surveillance has been quantified. For the last two years Western Australian NABS vets have been providing anonymised data from station visits for routine management purposes. Data is analysed monthly. Stations are aggregated into clusters of 4 or so to protect their anonymity (Fig 1).

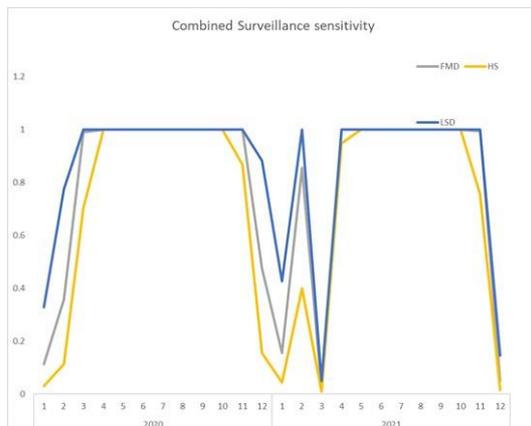
This data is then combined with other streams of surveillance data, including export, slaughter and general government surveillance activities, to calculate estimates of the

sensitivity to detect incursions of diseases such as FMD, LSD and Haemorrhagic Septicaemia (HS), if they are present at given prevalences.



*Fig 1 Northern Western Australian stations de-identified into aggregate clusters of stations.*

The largest component to the surveillance sensitivity is the inspections associated with livestock export, but the input from routine veterinary work is also a significant contribution and there is a high level of vet contact with other key people working with cattle through the supply chain - station crews, stock transporters, heli-muster companies, and private pest species eradication contractors.



*Fig 2. The combined surveillance sensitivities for FMD, LSD and HS from January 2020 to December 2021, modelled at prevalences of 0.2% for FMD and HS, and 0.7% for LSD*

*The decline in sensitivity in January and March 2021 corresponds with a decline in live exports for those months and the closure of the slaughtering facility in the Kimberley.*

Some take-home messages:

- Working with our networks is important to boost on-the-ground surveillance and awareness activities over the wet. If everyone knows how and when to report a suspect case it will help maintain a high level of surveillance sensitivity.
- Surveillance must be especially astute at the start of each muster season before cattle start to move.

## Weight loss over months leading to death

In February 2022 a vet visit was initiated to examine three poor-doing 3 year-old Wagyu cows in a mob of 300. The owner had observed that in the previous 2 years about 15 animals had gradually lost weight over 5-6 months, become weak and eventually died.

The worst affected animal was body condition score 1.5 (on scale 1-5), at the back of the mob, and collapsed drooling profusely when moved 300m. All animals in the mob, including those that were sick, had fluid green faeces. The other animals were body condition score 3.

The history for the mob indicated a good vaccination schedule with 7in1, Botulism and Tick Fever covered. Animals had died in multiple paddocks (most without poison plants, although there were some lantana, yellowwood, crotalaria, poisonous peach in isolated pockets). Affected animals were up to 3 years old. Bovine Respiratory Disease Complex (BRD) had been diagnosed in the breeders a couple of years previously.

The initial case definition was 'animals showing signs of significant weight loss over an extended period, leading to death' and differential diagnoses:

- Poisonous plant – chronic yellow wood
- BVD – Persistent infection leading to mucosal disease (drooling in worst animal)
- Johnes disease (unlikely - animals too young to be clinical)

The worst animal was euthanized for post-mortem examination and bloods and faeces were collected from the others (to rule out Johnes).

Gross pathology was evident in the thoracic cavity. The lungs were very fibrosed and scarred and were collapsed to ¼ the normal size. When cut, areas of purulent discharge was noted. This was very prominent in the cranioventral aspects. The remainder of post-mortem was unremarkable.

Field diagnosis was BRD and a full set of samples sent for histology and microbiology.

Lab results included:

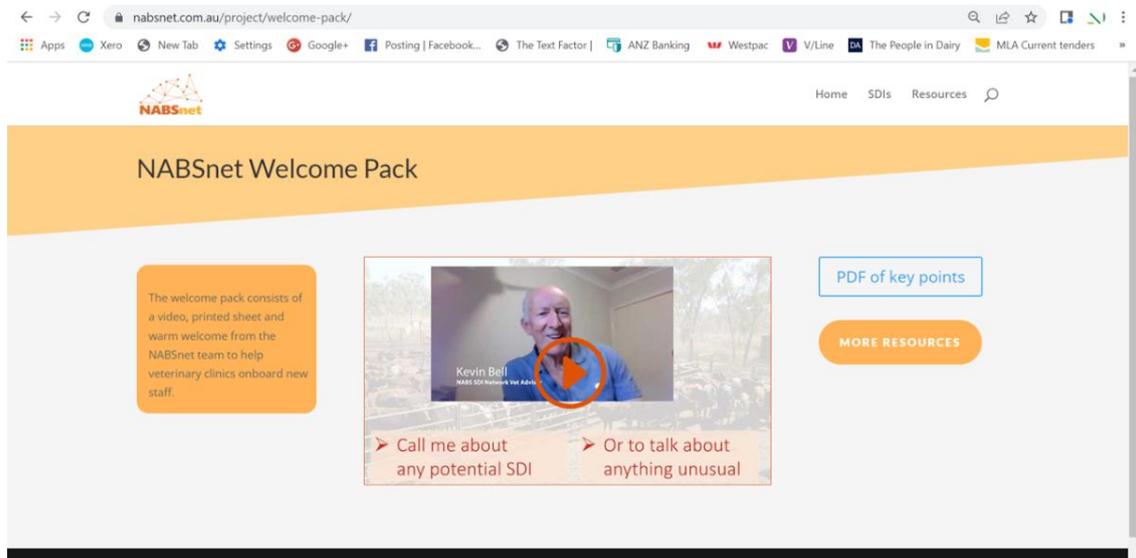
- Histology is consistent with BRD Complex with *Trueperella pyogenes*, *Histophilus somni*, and *Mycoplasma* isolated from the lungs.
- BVD antigen ELISA from 3 animals – negative
- Johnes PCR on faeces from 3 animals - negative

Recommendations to the owner focused on weaning as a potential stress period and the time when a small number of persistently infected weaners could be the source of infection.

Options for arranging BRD vaccination at weaning, plus dust control in the yard, not weaning in inclement weather and creep feeding so diet change is not such a shock were all discussed with the owner.

## Reminder - 'Welcome to NABSnet' – video and poster

To help new people in the NABS network (or as a refresher) there's now a [short video and a poster](#) to pop on the pin board in the lunch room. Check it out for 'Who's who' and how the NABS SDI system works.



The screenshot shows a web browser displaying the NABSnet Welcome Pack page. The URL is [nabsnet.com.au/project/welcome-pack/](https://nabsnet.com.au/project/welcome-pack/). The page features the NABSnet logo at the top left and navigation links for Home, SDIs, and Resources. The main content area is titled "NABSnet Welcome Pack" and includes a text box on the left stating: "The welcome pack consists of a video, printed sheet and warm welcome from the NABSnet team to help veterinary clinics onboard new staff." In the center is a video player showing Kevin Bell, NABS SDI Network Vet Advisor, with a play button icon overlaid. Below the video are two call-to-action buttons: "Call me about any potential SDI" and "Or to talk about anything unusual". To the right of the video are two buttons: "PDF of key points" and "MORE RESOURCES".



**Key NABS SDI network contacts**

**Kevin Bell, NABS Vet Adviser**

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or visit [www.nabsnet.com.au](http://www.nabsnet.com.au)

- QLD **Derek Lunau** [derek.lunau@daf.qld.gov.au](mailto:derek.lunau@daf.qld.gov.au)
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**Missed earlier NABSnet newsletters?** [read them here](#)

**To subscribe:** [join here](#)

**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.