

*'If you're thinking about doing something – just do it'*

Hi all

We are wrapping up FY 2020-21 with another good SDI investigation and an introduction to one of our network members – Cass Wittwer – DAWE Regional VO for Northern Australian Quarantine Strategy (NAQS) Animal Health.

Cass has been one of the key coordinators of the NABS SDI program in the last 18 months and is now 'the keeper of the SDI spreadsheet' used to analyse the SDI contribution to Australia's biosecurity status. Good to hear how she 'jumped ship' to join the team in the north - 'just did it'.

Don't forget to save the date for a one-day face-to-face Masterclass in Darwin on Friday 12<sup>th</sup> November.

Cheers Kev

Newsletter #31 (30 June 2021)

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## What plant is this?



Answer below

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## 19 dead heifers over 5 days in mid-coast Qld

In mid-March 2021 nineteen 2yo heifers in a mob of 350 on a station in mid-coast Qld became agitated with head shaking and died. Deaths occurred over a 5-day period.

Deaths began in a paddock that had been pulled with a chain in the previous November. It had experienced an extended dry spell and then a rainstorm the week before. Animals continued to die in a second paddock that the mob was moved to the day after the first death.

The heifers could not be approached until nearly moribund. Post-mortem examinations were conducted on two animals. Both had widespread jaundice, swollen liver and kidneys and ulceration of the abomasal wall.



Samples submitted to the lab: heart, lung, spleen, kidney, mesenteric lymph node, brain, rumen, abomasum, aqueous humour, rumen contents and samples from a water source accessible to the animals.

Field differentials: plant toxicity (including Noogoora Burr, Yellow-wood, Poison Peach or Lantana); tick fever; anthrax (although considered highly unlikely with this clinical history).

A paddock walk revealed a number of potential poisonous plants – all of the differentials above, plus Rattlepod.

Lab findings: severe subacute hepatopathy and nephrosis in both animals. Mild multifocal myocardial necrosis in one animal and a small area of necrotising vasculitis in the muscularis layer of the abomasum in the other. No significant findings in the other tissues. Negative *Bacillus anthracis* on polychrome methylene blue stain of spleen smear; no *Babesia* or *Anaplasma* seen on smear of heart and kidney.

The histology of the liver and kidney match with yellow-wood poisoning. A cyanobacterial toxin, cylindrospermopsin, can cause similar pathology, but no cyanobacteria of toxic significance seen on microscopy of the water sample.

**Diagnosis: acute yellow-wood poisoning.** The presence of myocardial necrosis may also indicate the animals had been eating Lantana.

Recommendations to the owner:

- Do not use this paddock unless there is a body of available grass, and do not use it for animals newly introduced from unfamiliar country.
- Because the effects of yellow-wood toxin are irreversible, watch the rest of the mob (that could have ingested smaller amounts) for ill-thrift and possible mortalities which could occur as time progresses.

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## **A note on anthrax**

### **\*\*\* zoonosis warning \*\*\***

If anthrax is considered a real possibility (the clinical history in this case did not suggest this), **do not open the carcass.**

Samples required for cattle and sheep (in order of preference):

- Thick air-dried blood smears from peripheral vessels (e.g. from the ear or tail)—make a small stab incision in the skin with a scalpel, collect the blood using a syringe, place a drop on a slide and air-dry; put any remaining blood into a plain blood tube
- Blood from a peripheral vein (e.g. jugular, brachial or mammary)—collect with a needle and syringe and transfer to an EDTA blood tube
- Blood that has pooled in the nasal cavity or other orifice (smears and swabs)
- Environmental samples (50 g soil) from the ground contaminated by nasal and anal discharges if none of the above are available.

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Q. What plant is this?

A. Yellow-wood or Rosewood (*Terminalia oblongata*)

One of Australia's few native deciduous trees



Source: Atlas of living Australia, occurrence records June 2021

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## Cass Wittwer – NAQS VO Broome

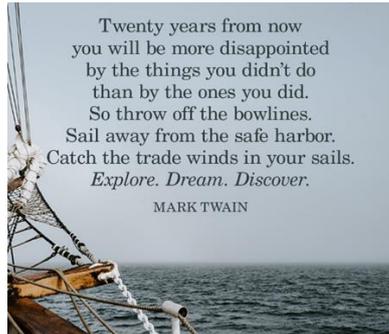


*If you're thinking about doing something – just do it'* is one of Cass Wittwer's nuggets of wisdom.

Early in 2010 she was browsing the net for home improvements and noticed a Federal Government logo with an ad for the VO position in Broome – the catch – the application closed at CoB that day.

In a spirit of action she applied, got the job, and was suddenly relocating from private practice near Brisbane to remote area animal disease surveillance with NAQS in northern WA. That was for a year, and more than a decade later she's still living the dream – swapping from peri-urban practice to feral animal helicopter surveys and remote sentinel herd bleeding visits (among many other things) was 'a good decision'.

When Cass isn't out in the very broad field or wrestling with the admin system to acquit her travel budget, she's doing the Broome beach or fishing thing, or maybe riding the trusty mountain bike on the Gibb Challenge – a 660 kilometre 'team relay charity fundraising celebration of fat tyre fellowship' along the Kimberley super-highway of the Gibb River Road. Another 'just do it' expression of life.

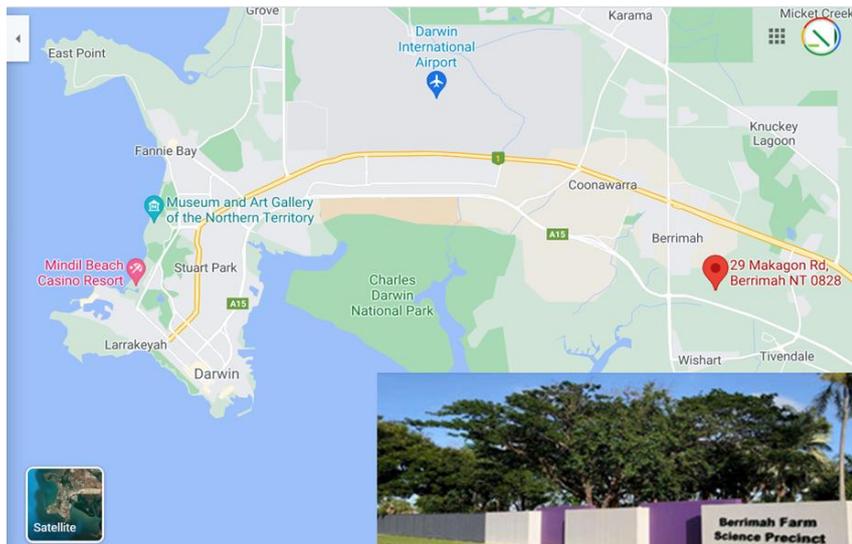


*"The quote that made me jump ship"*

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## Save the date.... Friday 12<sup>th</sup> Nov 2021

Plans are underway for a one-day face-to-face Masterclass at the Berrimah Lab in Darwin on Friday 12<sup>th</sup> November. Put the date in your diary and we'll let you know more in future newsletters.



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## ABARES research - what makes surveillance efforts work?

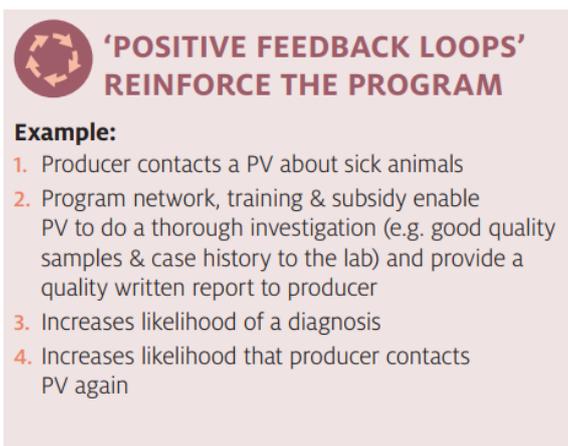
Recently NABSnet was used as a case study in a research project by ABARES - Making general surveillance work.

The consultation for the case study has been completed – a hearty thanks to all of you who contributed!

An [infographic](#) summarising NABSnet is now up on the project website. The final project report should be available within the next few months.

The key elements they observed as lessons for others:

- ‘Positive feedback loops’ are reinforcing for producers and private vets (PV)
- Our network is key to engagement across the north
- Simple and consistent program processes are important to enable work ‘across jurisdictions’



**‘POSITIVE FEEDBACK LOOPS’  
REINFORCE THE PROGRAM**

**Example:**

1. Producer contacts a PV about sick animals
2. Program network, training & subsidy enable PV to do a thorough investigation (e.g. good quality samples & case history to the lab) and provide a quality written report to producer
3. Increases likelihood of a diagnosis
4. Increases likelihood that producer contacts PV again

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## Key contacts for the NABS SDI network

Kevin Bell, NABS Vet Adviser

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

Let us know anything you'd like covered here or on the website