



Skin deep but serious

Hi everyone

Through our NABS network we aim to keep you up-to-date on exotic diseases that are surveillance priorities for northern Australia.

These priorities are based on careful assessment of where the diseases occur, how they might enter Australia, how they spread, and what impact there would be if they arrived here.

Lumpy skin disease (LSD) is on the list. We are featuring it this month because it was recently detected for the first time in Taiwan, Bhutan and Vietnam, probably originating from active outbreaks in China and India.

And on our theme of exotic skin diseases ... screw-worm fly is the most serious exotic pest threatening northern Australia and is present in PNG, so here's a reminder on what to look out for and what to do.

Have you tapped into the wealth of info about diseases and investigation techniques on the NABSnet website? See: www.nabsnet.com.au It has a heap of information relevant to the north collected by the network during its first 30 months. Use the search function to find stuff easily.



Happy start to the wet season

Cheers Kev

Newsletter #25 (20 November 2020)



An engorged paralysis tick *Ixodes holocyclus*

High mortality event with an instant fix

The owner called the vet to an ataxic Brahman cow on a property in FNQ because they had lost 21 cows in a week. A post mortem done by the local stock inspector the previous day had found nothing of note - but observed there was a significant burden of the paralysis tick *Ixodes holocyclus* on the cow - and veterinary examination was the next step.

The mob of 40 cows had been purchased from north-central Queensland in early September and put into a forest paddock with long grass and shrubs that had not been grazed for months. A week later the herd manager discovered several dead.

The cow examined by the vet had a slow respiratory rate (12-15 breaths per minute) and was breathing with considerable expiratory effort.

Paralysis tick was at the top of the differential list due to the recent history, the cow's abnormal respiratory pattern and the numerous, immature and engorged paralysis ticks on her coat.

The advice to the owner was to remove the surviving 18 cows from the paddock and spray them with Amitraz. And it worked – there were no further losses.

This case was dramatic caution that even a small number of paralysis ticks can be fatal for cattle and horses, and this needs to be considered when moving livestock from dry western country to wetter, subtropical coastal areas in spring. And a reminder that prompt action to get a veterinary investigation can help to reduce costly losses.



21 cows dead in a week – estimated loss of \$30,000

Lumpy skin disease (LSD) – what it looks like

LSD is caused by a pox virus affecting cattle and water buffalo. Mortality is low (1-5%) in adult cattle but up to 10% of calves may die. Morbidity varies but may be high (90%), particularly in naïve herds.



Source: EMPRESS-animal health 360, Issue 47, 2017

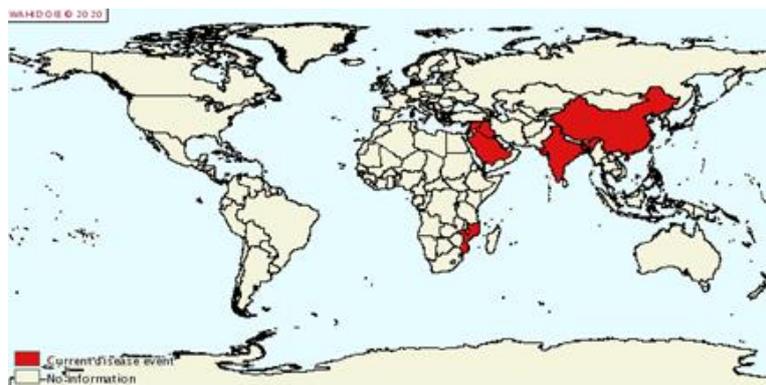
Clinical signs of LSD range from inapparent to severe disease:

- **Fever that may exceed 41°C for 72 hours or longer**
- Depression, anorexia and emaciation
- Rhinitis, conjunctivitis, ocular and nasal discharge and excessive salivation
- Enlarged superficial lymph nodes

- **Cutaneous nodules of 2–7 cm in diameter, particularly on the head, neck, limbs, udder, genitalia and perineum within 48 hours of onset of the febrile reaction.** The nodules are circumscribed, firm, round and raised, and involve the skin, subcutaneous tissue and sometimes even the underlying muscles. Large nodules may become necrotic and eventually fibrotic and persist for several months ('sit-fasts').
- The nodules also occur internally and lesions may be found in the trachea, lungs and throughout the GIT. Pneumonia is a common sequel.

LSD – important facts and what to do

LSD is endemic in Africa and in the last decade has spread through the Middle East and east to China. It was recorded for the first time in Taiwan in July 2020, with genomic data indicating that the virus came from China.

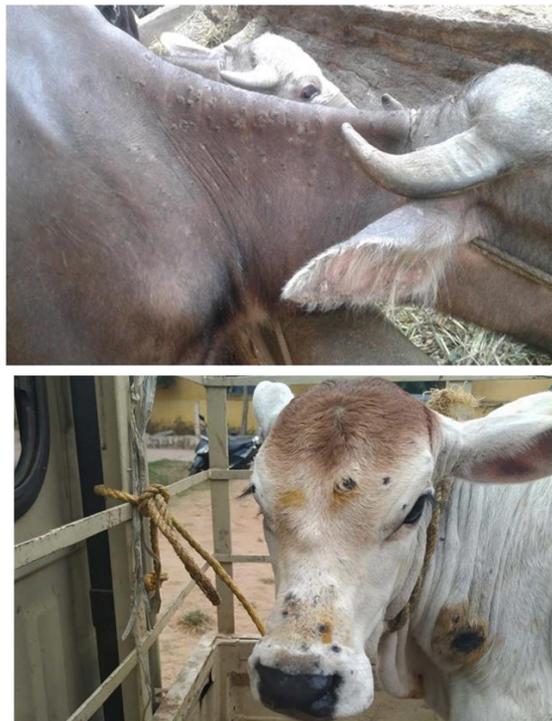


Source: Council of Agriculture, Taiwan News

- Lumpy Skin Disease does not affect people.
- It is highly infectious and primarily spreads between animals by biting arthropods. The virus may also spread by direct contact with infected lesions and body fluids.
- The virus is found in blood for 3 weeks post infection, and in saliva, ocular and nasal discharge.
- Nodules on the mucous membranes of the eyes, nose, mouth, rectum, udder and genitalia quickly ulcerate, which aids transmission.
- It is present in skin nodules, scabs and crusts for 5 weeks or more.
- It can remain viable in the environment for months and transmission (and possible means of introduction into Australia) can also be via fomites such as

Ring the Emergency Animal Disease Watch Hotline on 1800 675 888 if you suspect a case of LSD.

Bloods and biopsies of skin and lesions are used to confirm the diagnosis.



Sources:

LSD buffalo: Ahmed Neamat-Allah & Essam Mahmoud, Comparative Clinical Pathology Vol 28, 2019

LSD zebu: Dr Rajesh Singh, Pashudhan Praharee, 2020

[Read more about LSD](#)

The screw-worm fly threat to Australia's animal industries

Vets are urged to be on the lookout for signs of a serious exotic threat to Australia's animal industries.

Screw-worm fly preys on warm-blooded animals, including people, with the maggots feeding on living flesh. If this pest established in Australia it would have a major impact on livestock, domestic animals and human health.

Screw-worm fly is found in most tropical regions of the world, including our closest neighbour, Papua New Guinea; it could be introduced by the fly being carried on a storm front, on a boat or plane, or as maggots within a wound.

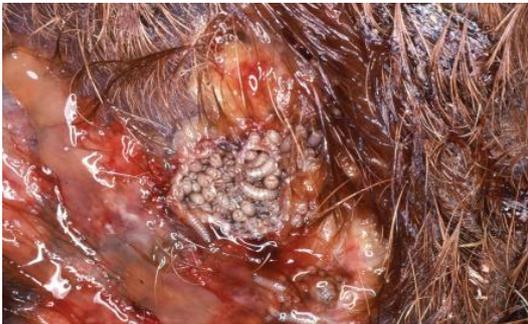
If you suspect screw-worm fly you must report it immediately to the **EAD Hotline on 1800 675 888**.

Sending maggots from wounds for expert identification is key.

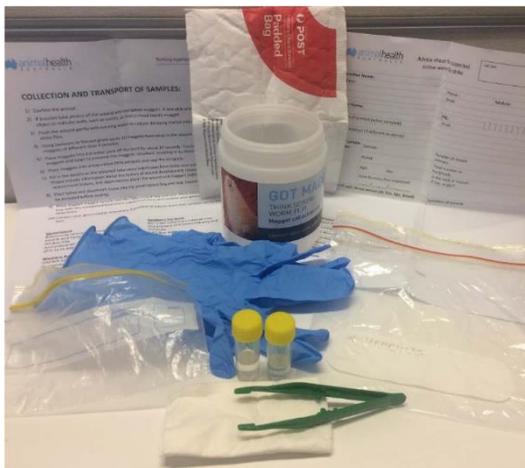
NABS network vets are asked to:

- Investigate all cases of myiasis in pets or livestock to determine the species responsible
- Encourage producer clients to collect and submit maggots if they see them in wounds in **live** animals

Tips on maggot collection



Screw-worm fly maggots form dense feeding infestations in wounds (AHA).



Free 'Got Maggots' collection kits are easy to store and use. Contact your lab for further info.

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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.

Key NABS SDI network contacts

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