



Victorian Farmers Federation Livestock Group

Livestock Factsheet

» Anthrax in Livestock

Anthrax is a serious disease that affects both humans and a wide range of domestic and wild animals. Infection is caused by bacterial spores that are rapidly acting and highly persistent in the environment. Anthrax can lie dormant in the soil for decades and can kill all classes and ages of livestock.

It is for this reason that it is important producers are aware of the symptoms of anthrax, to ensure rapid and appropriate response if there was to be an outbreak.

Anthrax is a notifiable emergency disease - if you believe your livestock are infected with anthrax you are legally obliged to notify the Department of Primary Industries.

Anthrax in Australia

Anthrax has occurred sporadically in Australia for over 150 years; it is believed to have been introduced in contaminated fertiliser from India and adjoining countries.

Figure 1: Anthrax outbreaks in Victoria 1914 to 1979



*Map courtesy of Victorian Department of Primary Industries

Cases of Anthrax have usually been confined to what is known as the anthrax "belt" which runs through central New South Wales into Northern Victoria along the old stock routes.

In Victoria, Anthrax is thought of by many as a "Northern Victorian" disease, however the map above shows where outbreaks of Anthrax occurred in Victoria between 1914 and 1979 and demonstrates just how widespread the disease has been.

How is Anthrax spread?

Anthrax can lie dormant in the soil for decades. The spores are usually disrupted by earthworks, heavy rain or deep grazing, particularly over

summer months when stock graze closer to the ground. This activity disturbs spores which are either inhaled or ingested by livestock.

Anthrax can spread to other animals from infected carcasses through direct contact (for example scavenging, cannibalism) but it is not contagious unlike diseases such as foot-and-mouth disease.

What are the symptoms?

The first sign of anthrax in grazing livestock is usually unexplained sudden death in one or more otherwise healthy animals. The blood usually fails to clot in these animals and a dark "tarry" discharge may (but not always) be present from the eyes, nose, anus, vulva or udder.

Impacts of Anthrax

There is a short-term economic impact on affected producers. Some economic loss is likely due to stock losses and an inability to trade during quarantine restrictions.

There is considerable impact on the producer due to resources and significant effort required for disposal of affected carcasses (burnt in-situ) and site decontamination.

Can it affect humans?

Yes, anthrax is a serious zoonotic disease, meaning it affects humans and animals.

Cases of anthrax in humans in developed countries are usually associated with exposure to affected animal products, and can affect the skin, respiratory and gastric systems. It can be lethal.

In Australia anthrax in humans is rare. The last case recorded was during a large outbreak in livestock in Tatura in 1997. A knackery worker was exposed to the disease during his course of work and contracted the cutaneous (skin) form, but later recovered following treatment.

What to do if you suspect Anthrax

- Do not handle, move or open suspect carcasses as the anthrax bacteria may infect you, and to form spores which greatly contaminate the environment and increase the risk of spread.
- Prevent other stock, including dogs and cats, and scavengers from accessing the carcass to prevent spread.
- If you suspect anthrax in your livestock, call your preferred veterinarian, local DPI or the 24/7 Disease Watch Hotline on 1800 675 888 immediately.

How is Anthrax diagnosed?

A veterinarian can test suspect animals in the paddock with a rapid detection test, which will be confirmed by laboratory testing as a matter of urgency.

Subsidies are available via your veterinarian from the Department of Primary Industries as part of the Significant Disease Investigation Program.

When Anthrax is confirmed

- Affected carcasses are required to be burnt in-situ (where they are found) without delay by DPI. All carcasses must be burnt to ash, so there is no remaining hide, hair or bone. This ensures there are no remaining anthrax spores.
- All infected properties are subject to immediate quarantine, with a total restriction on livestock movements.
- Animals on infected properties will be required to be vaccinated by DPI; this is likely to be a requirement for animals on neighbouring properties too. Infected properties will be vaccinated annually for 3 years to protect their stock. Costs of vaccine and its administration will be met by DPI where vaccination is required by DPI. Private veterinarians contracted to DPI will undertake the vaccination in most cases.



- Infected properties are quarantined for 20 days after vaccination or after the last case, whichever is later.
- Non-infected properties where animals have been required to be vaccinated will be quarantined as for infected properties above.

Can infected livestock be treated?

Treatment in beef cattle and sheep is rarely an option due to the sudden nature of the disease.

Other infected animals such as dairy cattle, horses, dogs and pigs can show a response to treatment with high doses of antibiotics.

For further information, please contact the VFF Livestock Group on 1300 882 833 or email Zoe Moroz at zmoroz@vff.org.au

Links

DAFF – Anthrax

<http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/animal/anthrax>

DPI - Anthrax

<http://www.dpi.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/general-livestock-diseases/anthrax-in-animals>

NSW DPI –Anthrax primefacts

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0013/52312/Anthrax.pdf

Animal Health Australia – AUSVETPLAN Anthrax Disease Strategy

<http://www.animalhealthaustralia.com.au/wp-content/uploads/2011/04/anthrax32final.pdf>

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TAKE HOME MESSAGES

- Anthrax is a zoonotic disease that affects humans and a wide range of domestic and wild animals including cattle and sheep.
- The first sign of anthrax is usually a dead animal.
- If you suspect anthrax in your livestock, call your vet, local DPI or the 24/7 Disease Watch Hotline on
- 1800 675 888.
- Do not handle or move suspect carcasses.



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