

Blue-green algae poisoning of livestock

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What are blue-green algae?

Blue-green algae are bacteria (cyanobacteria) capable of photosynthesis. Blue-green algae are normally present in Australian water bodies. There are a number of different species that are currently known to poison stock in Australia.

In some circumstances blue-green algae numbers increase rapidly, resulting in blooms. These can occur in water bodies used by livestock for drinking, including, rivers, creeks, lakes and farm dams.

Circumstances associated with poisoning

While blue green algae blooms are relatively common, livestock poisonings are uncommon.

Poisoning occurs when livestock drink from affected water sources and ingest large numbers of blue-green algae over a short period. This usually occurs when a blue-green algae bloom produces a surface scum that is blown by wind and concentrated on a shore line where livestock drink.

Dead and dying blue-green algae release their poisons into the water, increasing the risk of poisoning. Treating blue-green algae with algaecides such as copper sulfate in the water has been associated with increased risk of poisoning.

What might be seen with livestock suffering from blue-green algae poisoning?

Livestock are commonly found dead or die within a short period of being observed to be sick. Signs seen with these acutely poisoned animals include:

- Blue-green algae seen in the water source. For information on identifying blue-green algae see DPI Water's [Key to blooms](http://www.water.nsw.gov.au/water-management/water-quality/algal-information/key-to-blooms) (<http://www.water.nsw.gov.au/water-management/water-quality/algal-information/key-to-blooms>). Note that blooms and surface scum can clear quickly and may not be obvious by the time livestock deaths are discovered
- Sudden death of stock with carcasses found near water sources
- Nervous signs including trembling, staggering or comatose stock

What action should be taken if blue-green algae poisoning is suspected?

Cases of sudden livestock deaths should always be reported to your Local Land Services office. Animal health staff will investigate to identify the cause and to exclude important notifiable diseases such as anthrax. Contact Local Land Services on 1300 795 299 or [find your local office](http://www.lls.nsw.gov.au/) (<http://www.lls.nsw.gov.au/>) to arrange an investigation.

Stock that survive the acute poisoning may show a variety of signs in addition to the above, including

- jaundice (yellowing of mucus membranes)
- ill thrift

- photosensitisation (skin damage and inflammation due to increased sensitivity to sunlight).

Treatment of affected stock

Your veterinarian can provide the best advice for your circumstances, including for valuable individual animals. Treatment is largely symptomatic to reduce the effects of photosensitisation – for more information see the Primefact [Photosensitisation in Stock](http://www.dpi.nsw.gov.au/agriculture/livestock/health/images/information-by-species/cattle/photosensitisation-stock) (<http://www.dpi.nsw.gov.au/agriculture/livestock/health/images/information-by-species/cattle/photosensitisation-stock>).

Managing livestock when blue-green algae blooms are present

Managing livestock and algal blooms requires:

- early identification of blue-green algae blooms in livestock water sources
- prompt removal of livestock from the water source.
- access to an alternative safe water supply for stock
- your veterinarian can provide advice on managing the risk to livestock if blue-green algae is suspected to be present

Monitoring the risk of blue-green algae poisoning of stock

DPI Water provide detailed information on algal blooms on their [Algal Information](http://www.water.nsw.gov.au/water-management/water-quality/algal-information) (<http://www.water.nsw.gov.au/water-management/water-quality/algal-information>) web page and on the DPI Water Algal Information Hotline on 1800 999 457 . Information available includes:

- warnings for high risk periods when inspections for algal blooms should be increased
- updates on current blue-green algae blooms
- red level warning areas
- [Regional Algal Coordinating Committees](http://www.water.nsw.gov.au/water-management/water-quality/algal-information/algal-contacts) (<http://www.water.nsw.gov.au/water-management/water-quality/algal-information/algal-contacts>)
- causes and prevention
- management
- reporting of blue-green algae blooms

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