

Lantana poisoning

Lantana, *Lantana camara*, is a weed of national significance to Australia and threatens stock through its toxicity.

All lantana should be treated as poisonous to stock. Red flowered varieties are thought to be the most toxic but some white and pink flowered varieties can also be highly toxic.

Most lantana poisoning occurs when stock unfamiliar with the plant are introduced to areas where lantana is found. Young animals are most at risk. Stock bred in lantana-infested country tend to avoid it unless forced to eat it through lack of adequate food.

Species affected

Species affected by lantana poisoning include cattle, sheep, goats, guinea pigs and rabbits. Further research is needed to determine the long term effects of lantana on goats and camels. Children can also be poisoned by eating berries, but symptoms differ to those of livestock.

Toxicity

Significant lantana toxins are the triterpene acids, lantadene A (rehmannic acid), lantadene B, and their reduced forms. A toxic dose for a 500 kg cow varies from about five to 20 kg of fresh leaf (one per cent or more of an animal's body weight), depending on the toxin content of the lantana eaten.

Symptoms of lantana poisoning on cattle

Signs of lantana poisoning depend on the amount and type of lantana consumed and the intensity of sunlight to which the animals have been exposed. Signs can appear after one feed and, in acute cases, within 24 hours. Poisoned animals may show signs of:

- excessive skin sensitivity to sunlight (photosensitisation)
- liver damage
- yellow discolouration (jaundice) of the whites of the eyes and gums, and skin of the nose and mouth



Photo: Mick Richards

Cattle may become sun sensitive and their skin may blister after eating lantana

- reddening and inflammation of unpigmented (white) skin; muzzle may become inflamed, moist, ulcerated and very painful (pink nose) and slough (fall off)
- swelling of ears and eyelids if unpigmented
- reddening and discharge from the eyes (conjunctivitis)
- ulceration of the tip and under surface of the tongue (if unpigmented)
- blow fly and bacterial invasion of raw, exposed flesh, in chronic cases; affected skin may slough leaving raw ulcerated surfaces.

The animal may also:

- avoid sunlight (photophobia)
- stop eating
- appear sluggish, weak and depressed
- urinate frequently
- become constipated (most commonly) or have diarrhoea with strong-smelling black fluid faeces in severely affected animals
- become dehydrated.



Photo: Michael Day

Calves poisoned by lantana stop eating and become weak and depressed

Photo: Ross A. McKenzie



Jaundice (yellow discolouration) of eye

In severe cases, death may occur in two to four days, but it is more common for affected animals to take one to three weeks to die, if untreated.

Animals killed by lantana poisoning display the following post-mortem symptoms:

- yellow discolouration of tissues (jaundice)
- hard, dry, mucus-covered faecal masses in large intestine
- dry, undigested plant material in the rumen
- swollen and discoloured (yellow to orange) liver
- swollen gall bladder
- swollen and pale kidneys that turn green when exposed to air and cutting
- ulcerated cheeks, muzzle, nostrils, tongue and gums (in severe cases in cattle).

Photo: Ross A. McKenzie



Post-mortem changes—note enlarged gall bladder and yellowing of all tissues

Photo: Ross A. McKenzie



Photo-sensitisation in cow

Treatment

Contact your vet quickly!

If animals lose their appetite, stop drinking, show signs of jaundice and/or develop reddening of the muzzle, they should be moved to lantana-free areas and kept in the shade.

Unless treated quickly, severely affected cattle almost invariably die within 10 days of eating the plant. Even if an animal's lesions (caused by sun sensitivity) begin to heal and their liver function seems to return to normal, many cattle will still die up to six weeks after being poisoned.

Effective treatment may include:

- giving intravenous fluids and encouraging the animal to eat
- treating skin damage with antibiotics and sunscreens; other drugs can provide relief but are available only on veterinary prescription
- drenching with a slurry (2.5 kg activated charcoal in 20 litres of electrolyte replacement solution for cattle; 500 g in 4 litres for sheep and goats).

Activated charcoal is an effective but expensive poisoning antidote. A second dose may be required 24 hours after the first if the animal has not improved. Bentonite can be substituted for activated charcoal; it is not as effective, taking up to two days longer to produce the same result; however, being cheaper, it enables a more economic treatment of large numbers of animals. Use the same dose as for charcoal in a slurry with water.

The outlook for recovery is good, provided animals are treated quickly. Delay reduces the effectiveness of treatment, because kidney function may be seriously damaged.

Preventing lantana poisoning

To prevent your animals from being poisoned by lantana:

- 3 treat all lantana as potentially poisonous
- 3 keep your property lantana free
- 3 ensure stock have adequate feed
- 3 do not put new or young stock in areas where lantana is present
- 3 act quickly if poisoning is suspected —call your vet.



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