



Dairy vet Chris Luckhurst, from the Cornwall-based XL Vet's Calweton Veterinary Group, has seen many snake bites among his clients' herds. Here he explains why 'dozy' adders are a problem and what producers and vets should do to treat affected cattle.

Adder venom is rarely fatal, but prompt treatment is vital

Once bitten...

We see several cases of adder bite every year – typically between February and October with a summer peak – and each case will be slightly different. Some cattle show little reaction to a bite from an adder (*Vipera berus*), which is the only venomous snake that is native to the UK. Meanwhile others become extremely ill. It depends on the individual animal, where she's been bitten and how much venom was injected.

Adder venom causes damage to tissues through various digestive enzymes – it is, after all, derived from saliva. This disrupts local blood supply and causes a massive inflammatory response and, potentially, localised necrosis. The addition of a few nerve and blood toxins into this just adds to the problem. These toxic effects present as pain, oedema (swelling), haemorrhage (bleeding) and myonecrosis (muscle breakdown) and, on rare occasions, anaphylactic shock and death. I've seen cattle with their whole head swollen up like a balloon.

Adder bites are often seen on the nose or head of cows and heifers – they can disturb a snake when foraging – or on the udder, because they've laid on one. There's an increased chance of being bitten on a cooler, overcast day following a period of warm weather. The snakes are more alert and move more quickly when the weather is warm and tend to keep out of the way. They get 'caught out' as the weather cools.

Adders are easy to identify, due to the dark zigzag stripe down their back. They are not aggressive and will only bite if they are disturbed.

An adder bite is painful and potentially serious, but there are more poisonous snakes in other countries. Producers in Australia have a lot more to worry about – Brown snake bites can kill in minutes.



The encyclopaedia **Snake (adder) bite**

Symptoms

Cattle are visibly unwell and dramatic swelling of the muzzle, head or side of the udder may be seen

Diagnosis

Puncture wounds and swelling are the tell-tale sign of an adder bite, but not always easy to spot if the swelling is severe.

Toxins in the snake venom will also damage the blood supply to the affected area and there may also be some skin sloughing. Infection can also set in if treatment is not prompt.

Treatment

This must be quick and aggressive to limit the damage caused by the toxins. An anti-inflammatory and steroids should deal with the swelling and antibiotics will ensure that secondary bacterial infection, due to the damaged blood supply to the area, is avoided.

There are anti-venom serums, but these are expensive and not generally stocked.

It's important to keep a close eye on dry cows and heifers during the summer if they're on grazing known to be at risk, generally more extensive units with large areas of rough ground. Speedy treatment improves recovery by helping to reduce the inflammatory response as soon as possible.

