

Tetanus is a life threatening disease that affects all domestic animals and humans worldwide.

What is tetanus?

The bacteria that cause tetanus live and survive for many years in soil and manure. This means that grazing animals such as sheep and cattle are at risk of tetanus, especially following wounds resulting from standard management practices such as castration and dehorning, calving, nail punctures, stake wounds and wounds inflicted at shearing are also potential risks as is the use of rubber ligatures for tail-docking, which can provide suitable sites for the growth of the organism. The disease is seen in stock of all ages. Affected animals typically show stiffness and muscle spasms that progress in most cases until the animal collapses, unable to stand and ultimately dies, often in a short period of time.

What causes tetanus?

Toxins produced by the bacterium *Clostridium tetani* cause tetanus. This bacterium is found in the soil and the gut of animals and humans. The disease starts when the organism enters wounded or damaged tissue as a result of contamination. In the absence of oxygen the bacteria multiply and produce a localised infection. As they multiply, the bacteria produce toxins, which bind irreversibly to the nerves causing clinical signs of tetanus.

What factors lead to tetanus infection?

Any wound can become contaminated with the bacteria, however favourable wound conditions for spore germination and toxin production occur in damaged tissue that lacks oxygen eg. poorly draining wounds. The time between infection and disease can be very short (two or three days) or quite long (four weeks or more), depending on how long it takes for the contaminated area to develop a low level of oxygen.

Is there an effective treatment?

Tetanus is easy to prevent but difficult to treat. However, if signs are detected very early and the disease is not too severe, treatment can be successful using therapeutics such as antitoxin and antibiotics. The injection of a relatively small dose of antitoxin, such as the minimum dose recommended for prevention, if given within a few hours of the injury, should provide effective protection over the usual danger period. Treatment of clinical cases can be costly and may not always be successful and unfortunately in most instances the animals are often found dead.

Can tetanus be controlled or prevented?

Tetanus can be easily prevented through the use of an effective vaccination program. Protection can be achieved by vaccination using a vaccine from Pfizer's Ultravac[®] or Glanvac[®] range, which include protection against tetanus, in addition to other life threatening clostridial diseases.

Pfizer's Glanvac[®] range of vaccines, Ultravac[®] 5in1 and Ultravac[®] 7in1 all provide cover against tetanus. Glanvac[®] also provides control of cheesy gland in sheep, and Ultravac[®] 7in1 also provides protection against leptospirosis in cattle.

What vaccination programs are recommended?

For previously unvaccinated cattle and sheep, the primary course consists of 2 doses ideally given 4–6 weeks apart in cattle and 4 weeks apart in sheep. This should be followed by a booster dose 12 months later. Annual boosters should be done about a month before calving or lambing so that passive immunity is transferred from dam to offspring. This will protect them in the first vulnerable period of life prior to them receiving their first vaccination at marking time.

For complete directions refer to the product label. Consult your veterinarian or animal health consultant for advice on specific vaccination programs.

What are the correct dose rates?

Glanvac[®] 1mL for sheep/1mL for goats*
Ultravac[®] 5in1 1mL for sheep/2mL for cattle
Ultravac[®] 7in1 2.5mL for cattle

* Glanvac[®] 3, Glanvac[®] 6 & Glanvac[®] 6B12 are registered for goats.