

# TETANUS (CLOSTRIDIUM TETANI)



## CAUSES

Tetanus is caused by a toxin produced by *Clostridium tetani*. Cattle of all ages can be affected. The most common causes include:

- Wounds from trauma or surgical procedures (e.g. castration)
- Tears of the vulva or vagina following calving
- Other forms of cuts or tissue damage.

Often tetanus is seen as an isolated case, but may occur in outbreaks following banded castration in unvaccinated animals.

## TETANUS IS USUALLY A FATAL DISEASE.

### CLINICAL SIGNS

Time between injury to first clinical signs is usually 4-10 days but may be as long as 2 months.

Clinical signs include:

- Protruding third eyelid
- Tail is stiff and extended away from the body ("pump-handle" tail)
- Muscle rigidity causing stiffness progressing to "sawhorse" stance
- Jaws may be very rigid and difficult to open
- Bloat
- Later in illness, unable to walk and lay on their side with stiff, outstretched legs.
- Mortality rates are high (80% or more) in calves but lower in adult cattle.



Protruding third eyelid



Pump handle tail



Sawhorse stance

### TREATMENT

Antimicrobials and supportive care. Recovery is slow and uncommon, especially in calves.

**TETANUS IS CONSIDERED A RISK-BASED VACCINE. HOWEVER, IT IS HIGHLY RECOMMENDED THAT IT IS INCLUDED IN YOUR HERD'S VACCINATION PROTOCOL, PARTICULARLY IF BULL CALVES ARE CASTRATED.**

### VACCINATION

Cattle that have not been previously vaccinated or have unknown vaccine history should be given a booster series (i.e., 2 vaccines, 3-6 weeks apart), as per label directions. Cattle that have been previously vaccinated should be re-vaccinated every 6-12 months, as per label directions. Whether calves should be vaccinated depends on the vaccination of cows/heifers, colostrum consumption, and the timing of castration.

### PREVENTATIVE MANAGEMENT

Minimize causes of cuts or trauma (e.g. remove garbage from fields, reduce difficult calvings). Control strategies largely depend on timing of castration of bull calves.

[CONSULT THE TETANUS VACCINATION GUIDELINES](#)

