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.

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