

# One is blackleg and the other is stiff!

Dr. Judian Maye

The devastating effect of various species of the *Clostridium* bacterium on animals is best safeguarded and prevented with the use of vaccines. These bacteria thrive in the absence of oxygen and are found in environment, in soil, water and in the gastrointestinal tracts of both humans and animals. This article will focus on two.



## Blackleg

“Blackleg” is an acute and highly fatal disease of cattle and sheep caused by *Clostridium chauvoei*. The affected animals experience a sudden onset of severe lameness and marked depression. As the disease progress, the affected muscle tissue becomes black and cold due to damage to blood circulation, hence the term blackleg. Death follows rapidly within 12-48 hours. Often, the only thing seen the dead animal with blood running from its nose and a spongy swelling in the affected part of the body.

## Tetanus

Tetanus or more commonly known as “lock jaw” is caused by the production of a specific neurotoxin by the *Clostridium tetani* bacterium infecting a damaged area of the body. Goats, horses, donkeys and humans are most susceptible. The bacterium gains entry in penetrating wounds and produces a neurotoxin that causes stiffness – tetanic spasms - of the limbs, muscles of the

neck, face and body. Eventually the muscles of the chest become stiff and the animal suffocates to death.

## **Vaccination**

Vaccination is frequently practiced for the protection of animals against the various types of Clostridial diseases. Most commercial vaccines contain 2-, 4-, 7- or 8- way combinations of Clostridial organisms/toxoids. For adequate and complete protection a multivalent Clostridial vaccine for example Covexin<sup>®</sup> 8 is available to our livestock sector. This provides protection against diseases caused by *Clostridium chauvoei*, *C septicum*, *C novyi* type B, *C haemolyticum*, *C tetani* (toxoid), *C perfringens* types C & D).

Cattle, sheep and goats are given 2 vaccines 6 weeks apart starting at about 3 months of age. Annual boosters are recommended thereafter. Animals should not be vaccinated within 21 days before slaughter. Vaccination is imperative to afford animals the protection they need to survive and thrive and be productive! Farmers should see their doctors to get themselves vaccinated against tetanus too!

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