

Blackleg – The Danger Lurking in the Soil

Blackleg, also known as black quarter, quarter evil and quarter ill, is a particularly nasty Clostridial disease that affects sheep and cattle. It is a form of gangrene, known as gas gangrene in humans.

The bacteria, *Clostridium chauvoei* is the most common cause but it can also be triggered by *Clostridium septicum* or *Clostridium novyi*. These bacteria are normally found in the soil and faeces as well as naturally in the animal's intestines.

A Wake Up Call

The spores of the bacteria can lay dormant in soil indefinitely and 'wake up' when disturbed. This could be due to field drainage work, the soil being dug over, a flood of the area, construction etc.

In cattle, blackleg is normally caused by ingesting the bacteria. It attacks animals that are normally very healthy, well-fed and young (6 months to 2 years of age). Younger and older animals can also become infected.

Once ingested, the spores are absorbed into the blood stream and then lie dormant in the muscle until agitated.

Muscle trauma such as bruising during bulling or scuffles at a busy feed barrier can give the bacteria the right conditions for the spores to attack the tissue it has been lying dormant in.

In sheep, the bacteria is normally introduced via a wound or a nick, caused by shearing, castration, entry through untreated navels and arguments with pasture-mates etc. Once the bacteria has made its way into the bloodstream, it heads for the nearest large muscle mass.

The disease affects large muscles like the legs, diaphragm and heart but can also attack the tongue.

It starts to kill the muscle it has settled in and causes a gas build up that is incredibly painful. Tissue beneath the skin that is diseased can seem to 'crackle' when touched.

The animal may have a fever and severe lameness in the affected limb which may be swollen and very sore. They might also seem to be out of breath, depressed and off their food with an unwillingness to move. Often, cattle will show no signs at all and only necropsy reveals the cause of death.

Fast Moving and Fatal

Onset is very sudden and a few animals may be found dead without the symptoms being noticed. By the time they have been noticed, antibiotics are pretty useless against the disease as they need to be given at the very early stages.

Blackleg is an incredibly fast moving disease and is, more often than not, fatal. Once the clinical signs are visible, the animal will normally die within 12-48 hours.

Outbreaks generally happen during the summer when it is hot and humid – the perfect conditions for bacteria. But it can also occur after a sudden cold spell.

Livestock can be vaccinated against Blackleg and this should be done from the age of 3 months. Cows and sheep that are vaccinated a month or so before calving will provide significant protection for their new borns through their colostrum. There are various types available, some that protect against Blackleg only and others that protect against a wide spectrum of Clostridial diseases. Your vet will help you look at which of the vaccines is right for you, your herd and your pocket.