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## **BOVINE EPHEMERAL FEVER (3-DAY SICKNESS) IN CATTLE**

### **WHAT IS IT & HOW IS IT SPREAD?**

Bovine Ephemeral Fever (BEF) is a viral disease of cattle and buffalo. Typically, affected animals are only unwell for a few days hence it's more common name, three-day sickness. After significant falls of rain, we often see an increase in cases of BEF in the area. This is due to a sudden rise in numbers of biting insects such as buffalo fly, midges & mosquitoes that carry the virus. When an infected insect bites an animal which hasn't been vaccinated, the virus is released into the blood stream where it replicates causing the animal to become unwell.

### **WHEN DOES IT OCCUR?**

BEF usually occurs between January-April however can occur in the months surrounding this depending on weather conditions. Cases in winter or spring are very rare.

### **CLINICAL SIGNS**

Signs of BEF in cattle can vary depending on their immune status, size and the local weather conditions.

- Sudden onset of fever – often as high as 41°C (normal temp 38°C)
- Sudden and severe drop in milk production in dairy cows and abortions due to high fever
- Depression, uninterested in food and water
- Shivering and reluctance or refusal to move, stiff when walking and a shifting lameness
- Swollen joints and swelling around the jaw
- Longer times spent laying down particularly in older or heavier animals

### **SO WHY DO ANIMALS GO DOWN?**

Affected animals develop a fever as the body's immune system tries to fight off the virus. There is severe localised inflammation within the joints in particular making it difficult and painful for the animal to stand. Heavier animals are the worst affected simply due to having more weight on those sore joints. Like us, cattle get pins and needles or nerve damage when they lie on the muscles in their legs for long periods of time. Weight on these muscles leads to bruising and fluid leakage which builds up pressure in the muscles, consequently pinching nerves in the area. This causes temporary, or sometimes permanent, paralysis of the muscles that these nerves supply.

### **ARE THERE ANY TREATMENT OPTIONS?**

Intensive treatment is often not required for young healthy stock. It is recommended that any high producing cows, bulls and any other valuable animals should be treated promptly to give the best chance of recovery.

- Provide adequate shelter, water and food; cattle left exposed in hot weather are much more likely to die.
- The swallowing reflex can be reduced so affected animals should not be drenched or force fed. This may result in the inhalation of food or water, causing pneumonia.
- Roll animal several times a day to help avoid loss of circulation to the underside limbs, which will result in permanent muscle damage. The heavier the animal, the more critical it is to get it back on its feet as quickly as possible.
- Anti-inflammatory drugs are recommended for any animals which become recumbent.

## HOW TO PREVENT 3-DAY IN MY HERD

Once infected by the disease, most animals are resistant to infection however this resistance may be lost after several years, particularly in older animals. Vaccination is the most reliable form of prevention. Producers may choose to vaccinate their entire herd or only their more valuable heavy animals such as bulls, stud cows and dairy cows. Speak to your veterinarian to work out what is the best procedure for you.



- Vaccination protocol:
- Vaccinate from 6 months of age
  - Initially, two doses are required 4-6 weeks apart.
  - Booster vaccination every 12 months (given around Aug-Oct for best summer protection)

*This information sheet is not intended as a substitute for a veterinary consultation.*

*It is recommended that a consultation be arranged with a veterinary practitioner if you have any concerns with your herd's health.*