PREVENTING A POPULAR PROBLEM: TACKLING PINKEYE IN BEEF CATTLE

from the University of California, Davis School of Veterinary Medicine

Pineyes – or infectious bovine keratoconjunctivitis – is the most common eye disease of cattle in California, and throughout the U.S. Pineyes causes both economic losses to cattle producers as well as pain and suffering in affected animals that negatively impacts overall animal welfare. Caused by infection of the cornea with Moraxella bovis (M. bovis) bacteria, pineyes results in painful corneal ulcers and inflammation of the eye and skin surfaces lining the eye (conjunctivitis).

Another organism, Moraxella bovocculata (M. bovocculata), first reported in 2007 by Professor John Angulas and his research team at the UC Davis School of Veterinary Medicine (UCD SVM), is also frequently isolated from cattle with pineyes. At this time, M. bovocculata has not been proven to cause pineyes, however, it is possible that this organism is a risk factor for the disease.

If not properly treated, corneal infections can result in corneal scar, or even eyeball rupture, leading to permanent blindness. Pineyes is most common in summer months with increased exposure to sunlight and dry, dusty conditions. Plant assets such as oxtails can also predispose to disease by getting caught in the eye and damaging the cornea. Pineyes also increase the chances of exposure and spread of M. bovis bacteria by feeding around the face and eyes of affected cattle and then transferring infected eye fluids to other animals. The disease can also be spread by humans, particularly when they are not wearing disposable gloves or applying disinfectants to hides or other objects involved in handling affected animals.

Professor John Angulas, DVM, has spent more than 15 years researching causes and potential treatments for this costly disease.

“Controlling pineyes in your herd can be a challenge,” said Angulas. “It’s important to practice preventive measures like vaccination before there is an outbreak.”

Angulas also notes common signs of disease and offers cattle producers these tips on prevention:

**COMMON SIGNS:**
- Excessive tearing
- Frequent blinking or squinting
- Decreased appetite due to eye pain
- Corneal ulceration and discharges
- Potential blindness or eye rupture
- Can affect one or both eyes

**TIPS ON PREVENTION:**
- **Fly control:** Controlling flies that spread the disease to other animals in a herd. Traditional methods have included the use of insecticide-containing ear tags, dust baths and systematically – or topically applied pesticides.
- **Practice good sanitation/ hygiene:** To avoid inadvertently spreading infective bacteria between animals, use of disposable gloves is recommended when handling pineyes-affected cattle. These gloves should be changed at least:

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UC Davis’ John Angulas, DVM, respects a call for pineyes.

TREATMENT:
According to Angulas, M. bovis is susceptible to a wide variety of antibiotics however, only two are specifically labelled for the treatment of pineyes: tetracycline and oxytetracycline. Other antibiotics are known to be effective, but the use of these drugs for pineyes treatment is considered “off-label,” according to Angulas, who stressed that all treatment programs should be overseen by a herd veterinarian who can assess the situation and recommend the best treatment protocol.
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