



## Pink Eye in Dairy Farm Animals

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**Received:** May 16, 2023

**Published:** June 14, 2023

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Pinkeye is a painful, debilitating condition that can severely affect animal productivity. Pinkeye is a bacterial infection of the eye that causes inflammation and, in severe cases, temporary or permanent blindness. Most cattle producers will be familiar with pinkeye, but may not know how best to treat it and minimise its spread within a herd. Pinkeye can affect up to 80% of a mob, with affected weaner calves losing 10% of their body weight. When both eyes are affected, cattle may die from starvation, thirst and accidents.

### Cause

Pinkeye is caused by bacterium *Moraxella bovis*, which infects the eye and produce a toxin. The toxin attacks the surface of the eye (cornea and the surrounding membranes (conjunctivae), eroding the surface and causing severe inflammation.

### Predisposing factors

- Files
- Dust
- Bright sunlight
- Physical irritation of eye

### Clinical stages

- The first sign of pinkeye is an animal with a 'runny eye'. In the first two days, the membranes of the eye are red and swollen (hence the name 'pinkeye') with a watery discharge causing tear staining and a closed eye.
- In more severe infections, the spot in the centre of the eye continues to enlarge. Over the next one to two weeks the cornea is eroded to form an ulcer that spreads and swells, with most

of the eye changing from white to yellow and then to red (as white blood cells and then blood vessels move into the ulcer). Treatment should be given before the disease is this severe. If ulceration is severe, the cornea may rupture at this point. Once the jelly-like fluid from the centre of the eyeball is lost, the sightless eye shrinks back into the eye socket.

- 3. Most of the eye becomes red as blood vessels grow across the cornea. As recovery progresses, the blood vessels start to recede and the eye first becomes a cloudy blue colour, then begins to clear. Recovery is usually complete 3–5 weeks after the initial infection.

### Treatment

#### Eye ointments

At the time of writing, the treatment of choice for pinkeye is Orbenin® eye ointment, which must be purchased from a veterinarian. This is a long-acting penicillin, first developed as a mastitis treatment for infusion into the udder of dairy cows.

#### Antibiotics

Some antibiotics are also given via intramuscular route in which long acting oxytetracycline is considered drug of choice for pink eye treatment while florfenicol is also effective in this case.

Antibiotics can also be administered in subconjunctiva of eye with vitamin AD<sup>3</sup>E and steroid if animal is non pregnant.

#### Control

- Use flies repellent in sheds.
- Control Dusty environment.