

Pink eye

Pink Eye - Infectious Bovine Keratoconjunctivitis (IBK)

Infectious Bovine Keratoconjunctivitis (IBK), also known as “Pinkeye”, is a highly contagious eye disease that can spread rapidly throughout the entire flock. If not detected and treated in time, this infection can affect 50–80% of the flock and cause major economic losses.

Pinkeye is probably the most common eye disease in cattle. It occurs in all age groups, but most often affects young cattle and calves. It is believed that animals at an advanced age often develop immunity.

The causative agent of Pinkeye is a bacterial pathogen called *Moraxella bovis*, but environmental factors play a major role in the transmission of the disease.

Because flies are the main transmission path, peak fly season is also the time with the highest risk of Pinkeye infection (Face fly remains infected for 3 days after feeding on infected secretions).

Moraxella bovis is also found in healthy cattle on the mucous membranes of the upper respiratory tract and the conjunctiva.

Irritations of the eyes by wind, sunlight, dust or pointed grass stagers increase the likelihood of infection, as do other bacteria and viruses that affect the health of the animal.

These can make the disease more severe or make it easier for *M. bovis* to cause secondary infection. Additionally, a lack of pigmentation around the eyes (such as in breeds like Hereford cattle), can result in UV damage and subsequent inflammation thus sensitizing the eye to infection.

Clinical Signs

Generally, younger cattle are more commonly affected by Pinkeye.

Classical findings include:

- Conjunctivitis
- Blepharospasm (cramping of the eyelid)
- Epiphora (excessive tear production)
- Blindness due to corneal opacity or permanently following rupture
- Decreased appetite and weight loss
- Decreased milk production

The typical small opaque region in the centre of the cornea progresses most frequently to a deep central ulceration, although a perforation of the corneal ulcer is uncommon

Diagnosis

Diagnosis is done due to clinical findings and by submitting a conjunctival swab and/or lacrimal secretion for culture in order to detect the pathogen.

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Treatment

Affected animals should be treated as soon as possible to reduce the risk of long-term damage (blindness). Systemic treatment with antibiotics is promising. An interpalpebral injection (administration into the eyelid) of antibiotics is also possible, but is more labour-intensive (fixation of the head) and is not more effective than systemic administration.

In acute cases a combination with anti-inflammatory drugs (NSAID) is useful.

Prevention

In order to prevent infection it is essential to protect the eyes from UV light, especially for breeds with white heads. Furthermore a reduction of the fly population in the barn and on the pasture is very helpful against the onset of disease.

Moreover, it is crucial to prevent other predisposing diseases, i.e. vaccinate for BVD and IBR and to isolate infected animals. In order to prevent the infection from spreading further.

Infectious Keratoconjunctivitis in sheep

Infectious Keratoconjunctivitis also occurs in sheep, but here the causative agents are in most cases Mycoplasma, Chlamydia or a combination of both.

Both pathogens can be treated with a topical administration of antibiotics such as oxytetracycline.

However, in cases where ewes are bilaterally affected with IBK, an injection with long acting antibiotics may be indicated.

In the event of a serious infection with IBK leading to visual impairment on both sides, the ewes must be housed to prevent misadventure. Ensuring adequate feeding and nutrition is an essential supporting measure in these cases.