



Animal Health

Pink Eye in Cattle

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Pinkeye (or Infectious Bovine Keratoconjunctivitis) is caused primarily by *Moraxella bovis* along with a number of inciting factors. Because of the pain involved and potential for blindness, this is an economically important disease to prevent. Estimates indicate approximate weight losses of about 20 lbs. With the loss of one eye and at least 65 lbs. in calves over a 205 day period. Loss in milk production, labor, medication and loss in value are additional economic losses.

Observations

- Although *M. bovis* is considered the primary causative agent, a number of other infectious agents (e.g., IBR virus, *Mycoplasma*, *Chlamydia*, etc.) can affect severity and incidence in the herd. Young animals are more sensitive.
- Source of the organism is from carrier animals. The organism overwinters in the eye, nose, and vagina of some animals.
- Solar radiation, flies and dust, or anything else that causes eye irritation, play significant roles in the severity and incidence rate of the disease.
- Flies are significant transmitters of the organism. (Pinkeye incidence of 14% has been measured with 6-10 flies/head and 26% was related to 16-20 flies per head.
- Pinkeye in calves is enhanced by eye irritation from tall pasture grasses and seed heads.
- Though usually a warm, humid, summer problem, outbreaks do occur in winter and can be severe.
- Incidence and severity is probably less with increased pigmentation around the eye.
- Virulence (disease-evoking severity) is enhanced by solar radiation. Outbreaks seem to be associated with periods of maximum solar UV radiation.
- Nutritional deficiencies (vitamin A, iodine, etc.) influence incidence and severity.

Disease Signs

- Tearing and blinking are the first signs of pinkeye. Pain and sun sensitivity is significant.
- Conjunctiva (tissues around the eye) are red and a white spot can eventually be seen on the cornea (center of the eye).
- The white spot on the eye is an area of dying tissues that eventually results in rupture of the eye associated with loss of sight and a great deal of pain.

Treatment

- Treatment at the first signs is critical. In just a few days, irreversible blindness can occur.
- An eye patch or surgical eyelid closure to block sunlight aids recovery and reduces pain.
- Several antibiotics are usually effective and different methods of administration are possible. Contact your veterinarian for best selection and administration method.
- Resistant strains do occur. If there is a poor response to treatment, samples should be collected for culture identification and antibiotic sensitivity tests.
- If treatment response is not noticed in 24-48 hours, contact your veterinarian. Different strains or other immunological factors can alter therapeutic methods and vaccine response.

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Prevention

- Vaccines are generally beneficial, but responses are variable. Results are compromised if administered too late. Two doses (3 weeks apart) administered before fly season are needed. Consult with your veterinarian regarding the best choices for your region.
- Because of strain differences, an autogenous (vaccine made from the culture from your herd) might be necessary.
- Control flies. A host of control programs are available. Dragging pastures to disrupt manure pats retards fly reproduction and reduces populations somewhat.
- Maintain a strong herd immunity against IBR with routine vaccination.
- Optimize nutrition status, including minerals. Supplement vitamins A & E in animals accustomed to a poorer quality hay diet and during winter.
- Clip pastures to reduce eye irritation for young calves.
- Shade helps reduce the solar radiation that enhances development of the disease.
- Treat diseased eyes as quickly as possible to prevent permanent eye damage, weight loss, and reduce transmission of the causative agent to others.
- Separation of affected animals has been advocated. However, the benefits are questionable since infected flies travel appreciable distances.