





# Pinkeye: causes and economics

# **Pinkeye**

Pinkeye is caused by a bacteria, Moraxella bovis, and is the most widespread and important eye disease of cattle. This disease occurs in all types of cattle operations when a new strain is introduced through a carrier animal or environmental conditions lead to irritation of the eyes. Outbreaks of pinkeye occur when herd immunity is low and events allow transmission of Moraxella between animals. Pinkeye causes cattle significant discomfort and as a result has considerable economic consequences on farms across Australia.



In a survey of Australian farmers, approximately 80% reported that pinkeye had occurred on their property and almost the same amount identified that it negatively affected their stock<sup>1</sup>.

Pinkeye is a painful condition which reduces grazing, and therefore production and condition of animals over a 2-4 week period. Work with your veterinarian prior to when pinkeye occurs and develop a plan for control, identification, and treatment. It is an essential component of herd health for both dairy and beef herds to limit the welfare consequences and protect against this costly disease.

### The economic effects include:

- Costs of repeated drug treatments.
- Negative impact on calf weaning weights.
- Additional labour requirements.
- Reduced feed consumption and milk production.
- Permanent visible damage to the eye can reduce product value.
- Decreased fertility in affected stock.
- Death caused by misadventure in rare cases.



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<sup>&</sup>lt;sup>1</sup> Slatter DH, Edwards ME, Hawkins CD, et al. A national survey of the occurrence of infectious bovine keratoconjunctivitis. Aust Vet J, 1982;65–8

# **Recognising Pinkeye Symptoms**

## Recognising the symptoms of pinkeye:



The early symptoms include excessive tears, closing or blinking of the eye due to discomfort, and finding bright lights irritating.



Late symptoms, if severe, can lead to rupture of the eye.



These symptoms continue with central damage of the eye, visible as either an ulcer or a pit on the front of the eye. An abscess is noticed as yellow to cream discolouration of the eye.



Healing following damage to the eye may result in scarring which remains as a white discolouration on the front of the eye.

## Differentiate pinkeye from other diseases:

Pinkeye is not the only eye disease in cattle. Your veterinarian can differentiate pinkeye from other diseases which occur to the eye.



Foreign material, such as a grass seed, caught in the eye socket.



Cancer of the eyeball.



Cancer of the third eyelid.



Cancer of the upper or lower eyelid.



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# **Treatment for Pinkeye**

## Control of pinkeye

Control of pinkeye is required to reduce the economic impact on a farm business as well as the animal welfare aspects of this disease. No one management tool will alone control the disease and all these should be considered within a management plan.

- Maintain healthy stock so that their immune system can naturally control this disease.
- Use vaccination to increase herd immunity, particularly in young stock, and therefore reduce the incidence and severity of the disease.
- Control flies by reducing areas where they breed and the use of fly treatment products. Flies play an important role in the transmission of pinkeye bacteria between eyes.
- Preferentially manage young stock to minimise the environmental effect on pinkeye. Limit to only essential yarding during dusty and windy conditions. Also limit contact with tall grass and weeds during risky periods.
- ✓ When pinkeye does occur, treat it early!
- ✓ Isolate or segregate infected animals to prevent transmission to healthy stock.



### Considerations for treatment

Isolating and treating infected cattle early results in better outcomes for the individual animal and reduces spread to other members of the herd.

- Opticlox® Eye Ointment is formulated to persist in the socket of the eye, providing treatment for 48 hours. Both eyes should be treated, even if only one has symptoms, as flies may have already transferred the bacteria to the unaffected eye. Ulcers less than 0.5cm in diameter often require only a single treatment and larger ulcers usually require repeated treatments every 48 hours until resolved.
- On rare occasions pinkeye is caused by other bacteria including Moraxella bovoculi
  or Listeria. These are non-responsive to treatment and diagnosis is made by your
  veterinarian completing a culture of the eye discharge.
- Injectable antibiotics provide the additional benefit of reducing bacterial shedding and therefore transmission between animals. Alamycin® LA 300 is a long acting formulation, providing treatment for pinkeye lasting up to 6 days from a single injection. This may be useful, reducing the number of yardings required, and can help to contain an outbreak.
- Pinkeye can be a very painful disease, resulting in reduced feed intake and production losses. Anti-inflammatories, including Loxicom for Cattle and Pigs<sup>®</sup> and Flunixon<sup>®</sup> Injection, provide pain management, reducing the discomfort associated with pinkeye.
- Surgical coverage of the eye by your veterinarian using a third eyelid flap is used to promote healing and limit scarring caused by pinkeye. Contact your veterinarian for any severe or non-responsive cases to treatment.
- Patches, covering the eye, protect from sunlight which can add to the severity of the case. This also reduces transmission by stopping the face fly from feeding around the eyes.

Due to the possibility of carrier animals, do not mix infected animals with other animals until the fly season is finished. In moderate and severe cases, or in outbreak situations, consider the use of injectable antibiotics to reduce yardings by providing longer treatments.

Speak to your veterinarian well before fly season to develop a preventative plan for pinkeye. They will develop a herd health program and treatment protocol for pinkeye suitable for your farm.



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#### **Grow Well**

Grow Well aims to develop tools for veterinarians and their clients which may be used in practical situations.

Your veterinarian is the trusted professional with local knowledge to best meet your farm's needs. Combining science with practical considerations, your veterinarians can tailor a preventative health plan to fit your situation, aiding you in optimizing your farm's productivity through management of pinkeye.

We trust that the information contained within this booklet will help you work with your vet to minimise the cost of pinkeye on your farm.

#### **REVIEW**

### Does your pinkeye plan consider:

#### Prevention:

- Vaccination.
- Fly control.
- Environmental risk minimization.
- Early recognition.

#### Treatment:

- Antibiotic therapy.
- Pain relief.
- Surgical intervention.

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