

JUNE 2023 DAIRY NEWSLETTER

Pinkeye

Pinkeye bacteria is most often spread by face flies, and becomes a problem when the cow's eye immunity is weakened by concurrent irritation. There are several risk factors associated with pinkeye which can be broken down into cow, bacteria, and environmental triggers.

Risk Factors:

Bacteria: Typically, *Moraxella bovis*, though there have been more strains discovered recently which may not behave similarly when treated.

Susceptible cattle: Cows with weaker immune systems (recently calved, sick, or stressed) and cows that have not been exposed to the bacteria before (recently purchased animals, young animals)

Environmental: Anything causing eye irritation. This can include flies, UV light from the sun, dust, pollen, grass awns, heat, and overhead bale feeders.

Diagnosis:

When two or more of these factors are combined, the cow's immune system is unable to clear the initial infection and multiplying bacteria cause damage to the cornea (transparent part of the eye over the pupil and iris). This damage starts to appear as reddened outer edges of the eye, tearing, and squinting. As it progresses, a white clouding of the cornea and frequent blinking are commonly seen.



Three stages of clinical pinkeye infection, and an example of a simple patch affixed using tag glue.

Treatment:

A cow suffering from pinkeye will have the best chance to keep their sight and heal if they receive treatment. Treatment consists of antibiotics to fight the bacteria, anti-inflammatories to reduce swelling and tear production, and management changes to reduce the environmental factors.

If detected early, treatment with one of penicillin, draxxin or oxytetracycline can often be successful when combined with metacam and taking measures to reduce environmental factors. In more advanced cases characterized by a bright white spot in the cornea, subconjunctival injection of antibiotics can be performed or taught by a veterinarian. Additionally intramuscular antibiotics and metacam should be added for best results. Gluing an eyepatch made of fabric over the affected eye will also greatly help to reduce irritation, keep flies, debris and UV to a minimum, and allow the eye to heal.

Prevention:

Prevention is key when controlling pinkeye. Effective fly control can come from fly tags, pour on products such as cylene or boss, fans, fogging, bugs for bugs (fly parasites), and a reduction in sitting milk and manure. Providing shade to cattle on pasture can help to alleviate UV irritation. Choosing bales that produce less dust and not using overhead feeders can reduce mechanical irritation to the eye. Vaccines for pinkeye exist, but it is important that the vaccine is for the specific strain of bacteria affecting the herd. For this reason, having an eye swab and lab confirmation of bacterial strain is recommended.