

Pinkeye | Identify, treat and prevent.

This time of year we get completely inundated with questions about pinkeye. What causes it? How can I prevent it? How do I know when to treat it? What can I use to treat it? Pinkeye in cattle is an awful problem. It is estimated that 150 million dollars is lost annually from pinkeye due to decreased weight gains, decreased milk production, and treatment costs. One study found that calves affected with pinkeye weighed 20lbs less at weaning than their healthy counterparts. In the sale ring, cattle with obvious signs of pinkeye may bring less than healthy animals of equivalent weight.

What is it?

Pinkeye or Infectious bovine keratoconjunctivitis (IBK) is a contagious bacterial infection of the eye caused most commonly by one or more of the bacterium *Moraxella bovis*, *Moraxella bovoculi*, or *Mycoplasma spp.* It most commonly affects younger animals, but adult animals can be affected as well. Typical signs include:

- Excess tearing
- Frequent blinking or squinting
- Redness of the eyelid and eyeball
- Sensitivity to sunlight
- Blue or white discoloration of the eye surface
- Crater-like indentation of the eye surface
- Blindness

How is it spread?

Pinkeye is very contagious and can spread rapidly. It is most commonly spread through vectors such as face flies. The bacteria is picked up by the fly from an infected animal and is carried to another. Because flies love to land near cow's eye margins to feed, a single fly can transmit the disease rapidly within the herd. Any eye irritation can increase susceptibility. Dust, tall pasture grasses, and plant awns are among the most common eye irritants. Humans have also been the culprit of spreading pinkeye. Handling multiple animals, using the same halter has been implicated in pinkeye spread.

How do I prevent it?

There are several things that you can do to try and prevent pinkeye.

1. **Vaccination:** Commercial vaccines are available for both *Moraxella bovis* and *Moraxella Bovoculi*. Unfortunately, the specific bacterin within these vaccines is not universally effective, as the bacteria mutate and essentially become different strains of bacteria than found in the vaccine. Autogenous vaccines created from cultures of infected animals on your farm will have a greater degree of specificity. Vaccination to prevent pinkeye has yielded limited results from the scientific community. Anecdotal reports in support of vaccination do exist but the topic of vaccination to prevent pinkeye remains contentious.
2. **Fly Control:** Because flies are most commonly implicated in the spread of pinkeye, fly control should be your first step to prevent and control pinkeye. Commercial fly sprays, pour-ons, and fly ear tags are great ways to control flies. Feed additive products can be used to limit reproduction and maturation of flies in the manure.
3. **Other Options:** Ensuring your cattle have a strong immune system is a key step in thwarting all disease, pinkeye included. Trace minerals such as copper and selenium play an important role in immune function; ensure your animals are adequately supplemented. Clipping mature pastures prior to turn out can help with eye irritation from grass blades and plant awns. Lastly, providing shade can reduce exposure and irritation caused by sunlight.

How do I treat?

Like other diseases, early detection is paramount to treatment success. Two injectable drugs currently labeled for pinkeye include oxytetracycline and tulathromycin (Draxxin - not for use in lactating dairy cattle). However, it is important to discuss with a veterinarian what the best treatment plan will be for your animals. Other options may include the use of topicals applied daily or eye patches.