

VETERINARY CALL

by Bob Larson, Kansas State University

Pinkeye

With proper management strategies, producers can work to reduce the risk of pinkeye.

Pinkeye is frequently identified in the summer in calves less than six months of age. Factors such as face flies, bright sunlight, dust, pollen and grass seed heads appear to contribute.

The bacteria that cause pinkeye, such as *Moraxella*, are normally found in the eyes and nose of healthy cattle. The eye has to be irritated or injured in order for these germs to be able to cause significant damage. A number of other diseases can mimic pinkeye or act as the initiating cause for further damage. Infectious bovine rhinotracheitis (IBR), *Mycoplasma* infection, vitamin A deficiency and objects in the eyelid can cause or contribute to irritated, watery eyes.

The earliest sign of pinkeye is increased tearing, which appears as excessive wetness around one or both eyes. When examined closely, the white portion of the eye will appear red, and if the disease progresses, the eye becomes cloudy or white.

In severe cases, an ulcer forms in the center portion of the eye. If the ulcer is deep enough, the eye can rupture. Even without treatment, many calves will heal in three to six weeks. Some animals heal with no evidence of previous problems, while more severely affected individuals will have a white scar on the eye surface. Eyes that have ruptured will become blind and extremely disfigured.

Treating calves with injections of antibiotics and reducing exposure to dust, weeds and sunlight is often successful, particularly if the calves are treated when the eye damage is minimal.

Covering the eye with a patch or sewing the eyelids shut will help to make the animal more comfortable by decreasing sunlight exposure and helps to decrease the spread of the disease by preventing flies from getting to the infected eye secretions. If possible, affected calves should be moved to shaded areas with no dust where they can be easily treated for both face flies and pinkeye.

Preventing pinkeye

Face flies are involved in the spread of pinkeye because they cause irritation to the eyes, and they can spread germs to the eyes of other calves. One challenge when trying to control face flies on calves is fly control strategies that work well for horn flies on adults may not be ideal for face fly control on calves. Fly tags placed in the calves' ears or other methods to apply insecticides on the faces of calves are necessary to control face flies.

Other management strategies to control contributing factors of pinkeye are also beneficial. Grazing management to keep plants from

producing seed heads helps to prevent eye irritation. Providing shade and selecting for cattle with pigment around the eyes decreases ultraviolet damage to the cornea.

Vaccinating calves against pinkeye organisms and feeding tetracycline antibiotics in a supplement or mineral mix have been used in efforts to prevent pinkeye. Neither method has shown much evidence of success.

Pinkeye is a frustrating disease because ranchers can go many years without problems, and then they can have a year where a high percentage of calves are affected — even though no apparent changes have taken place.

Although no simple solutions are available, a commitment to good pasture management, effective fly control and early detection and treatment of eye problems is the best strategy to minimize the effects of this disease. **AJ**

Editor's note: Robert L. Larson is a professor of production medicine and executive director of Veterinary Medicine Continuing Education at Kansas State University in Manhattan, Kan.