**Pinkeye Prevention in the Herd**

It would make economic sense for producers to address pinkeye immediately; however, grazing cattle that are far away from working facilities make it difficult to administer treatment when cases of pinkeye arise. Prevention of pinkeye is difficult because it is a complicated, multifaceted disease. The best plan is to reduce or remove as many risk factors as possible that can result in damage to the corneal surface of the eye. Any damage will allow the bacteria to cling to the corneal surface and grow. Many different combinations of contributing factors such as ultraviolet rays from the sun, face flies, excessive eye irritation, nutritional deficiencies, and stress may work together within a herd at one time.

Prevention is based on maximizing herd immune status, controlling face flies, minimizing exposure to the bacteria, and maintaining as irritant-free environment as possible.

**Maximize herd immunity**

In addition to following good nutrition and vaccination protocols to maintain optimal herd health, there is no scientific evidence to support feeding excessive levels of any vitamin or mineral, including Vitamin A, helps to prevent diseases of the eye. However, if trace mineral levels (especially selenium and copper) are very low in an animal, immune function is severely impaired. In these instances, an injectable mineral may be necessary to bring these minerals back within a normal range so vaccines and antibiotics can work. I always kept out a good balanced mineral that cows would consume and it helps in every facet of an animal’s health building their immunity. Its money well spent I think, especially when to boot, you increase your calf gains by 30 to 40 pounds, and breeding & calving percentage 5% plus.

**Control face flies**

There are many methods to control fly populations during the summer months, but preventing face flies may be the best way to reduce the spread of pinkeye. Bacteria in the secretions of infected cattle can survive on or in face flies for 2 to 3 days and infect other animals when the flies feed again. Face flies may move as far as four miles during their life so they can easily transfer pinkeye from herd-to-herd and farm-to-farm. Face fly control is challenging. The flies spend only a few minutes at a time on or around the head, which is a difficult area to protect. Application methods like fly tags that regularly place insecticide around the face and eyes provide the best means of protecting cattle. Insecticide impregnated ear tags or force used dust bags provide the most consistent reductions in fly numbers.

The use of insect growth regulators (IGR) or larvicides in the mineral starting one month prior to fly exposure is a well-proven management practice to reduce fly pressure. Use a product labeled for controlling face flies (all control horn flies), as they can spread the pinkeye-causing bacteria from animal to animal. Use fly tags in cows and calves. While putting tags in both is ideal, using in cows is the key. Also, don’t forget the bulls! They need fly control, too. Rotate among pyrethroid, organophosphate and avermectin tags. Pouring the cattle with a fly-control product the same day you fly-tag is an excellent way to get a quick kill on the flies. Many of the free-choice mineral feeders come with an option that applies insecticide to the face of the cow as she consumes the mineral. These can be quite effective if they are kept recharged with insecticide. If cows have to walk through a narrow opening, using an insecticide-soaked “fly wipe” can be helpful. There are also noninsecticide options where cattle walk through a “fly trap,” where flies are mechanically “wiped” from the animal and then fall into a trap. Spraying cows during the summer can be another effective way to reduce the fly pressure. I know a lot of us have done most of these at one time or another over the years.

**Pasture management**

Ranches that practice management-intensive grazing (MiG) and don’t allow grass to mature have fewer pinkeye issues than ranches that allow grass to grow tall and form a seed head. The grass can irritate the eyes, and the seeds can lodge in the conjunctiva and scratch the cornea. Keep grass under 10 inches by grazing or clipping to decrease the chance of irritation.

**Minimize exposure to the bacteria that causes pinkeye — M. bovis and M. bovoculi**

Early detection of animals with the first clinical signs (tearing, squinting, and blinking) and then prompt, effective treatment are essential to reducing spread to herd mates and limiting damage to the eye. Long-acting antibiotics such as long-acting tetracycline or the prescription antibiotic tulathromycin are labeled for treatment of pinkeye. A veterinarian may prescribe the antibiotics florfenicol, ceftiofur, or others to be used in an off-label manner for treatment as well. Injectable antibiotics are generally the best option because of their long duration of activity and effectiveness in eliminating bacteria.

**Maintain an irritant-free environment**

In addition to good face fly control, mowing tall grass with seed heads, providing shade and clean, cool water (stagnant pond water or dirty automatic waters can be problematic) and reducing sources of stress, such as overcrowding, are important to stopping the spread of pinkeye.

**Consider vaccinating**

Does vaccination work? According to the Vet-“Immune responses to pili have been shown to be protective in some studies where animals are vaccinated with pili of a certain type and then challenged with a similar strain. A high degree of diversity among pilin genes is likely responsible for why some herds might see a benefit from vaccination while other herds do not; if the vaccine strain stimulates immunity to a pilus type that is also present in the herd, there should be good protection”. There are a number of vaccines for pinkeye, and they contain various strains of bacteria. Select a product with advice from your herd health veterinarian, as he or she is the best source of information for the ideal vaccine for your area. If you are still getting cases after performing all of the above, ask your herd health veterinarian about culturing the eyes to see what organisms are responsible.

There is even a pelleted implant dose that contains a combination of immediate release (IR) and programmed release (PR) antigen pellets, and includes the antigen equivalent of two doses of Moraxella Bovis Bacterin that can be used. Does it work? One would hope so since it cost $3 per head!