

UCD VET VIEWS  
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## PINKEYE PREVENTION & TREATMENT

Last month's column detailed the current drugs and products available to fight flies for this year. The column emphasized the methods and strategies to decrease face fly infestation. The most important reason to control face flies is as an aid in controlling pinkeye in cattle. Refer to last month's column for details of fly control and products; however, be sure to remember the following points:

### 1. Fly control:

Early in the fly season, use Sprays, Pour-ons, Dust bags, Feed through insecticides, Back rubbers, Face rubbers, etc. When fly populations build up--then use Ear Tags.

### 2. Ear tags:

Alternate your use of pyrethroids and organophosphates on a yearly basis. For more effective fly control use 2 ear tags versus 1. Put ear tags in calves.

Clip the pastures if grass is long and headed out. This will decrease much of the irritation to the cattle's eyes that can initiate the beginnings of a pinkeye outbreak. The irritation of dust, plant pollen, or weed seeds will promote the heavy shedding of the pinkeye bacteria (*Moraxella bovis*) by a few "carrier cows" in the herd. These carriers spread the organism by contact and face flies to the rest of the herd and the susceptible animals will become infected and have clinical pinkeye.

If pinkeye vaccines are part of your prevention plan, vaccinate well ahead of pinkeye season. Try to give the last dose of vaccine 30 days before the fly season. **If the vaccine is a two-dose product, give two doses.** Be sure to vaccinate the calves, as they are often the ones most at risk.

**If pinkeye cases do occur, what is the best treatment?** One of the professors in the School of Veterinary Medicine at UC Davis has completed several years of research on this subject. Dr. Lisle George has scientifically examined several methods to treat pinkeye and these are summarized in this column.

First, if you are going to examine the eye for a foxtail or other weed--use disposable latex exam gloves. You can obtain these from your veterinarian or other animal health product source. After you have touched the eye (extracted the foxtail or treated the eye) or nose area, **throw the gloves away.** They are badly contaminated with the pinkeye bacteria. If you used a halter or nose tongs to restrain the animal, disinfect this equipment. Nolvasan® disinfectant is a good choice for this procedure. For treatment, use disposable needles and syringes for any treatments.

The pinkeye agent is a bacterium and therefore, antibiotics are indicated for treatment. The question has been, "Which antibiotic, what dose, what route?" These questions are what Dr. George's research has been so helpful in answering. The best two treatments are as follows:

#### 1. Long-acting tetracycline (Biomycin® or LA-200®)

Dose: 20 mg/kg body weight (9 mg/lb.)

Route: intramuscular or subcutaneously (these products are irritating to tissues and should be given sub-Q whenever possible) both are labeled for sub-Q use.

Frequency: Two injections 48 to 72 hours apart.

#### 2. NuFluor® (florfenicol)

a. Dose: 20 mg/kg body weight (9 mg/lb.)

Route: Intramuscular

Frequency: two injections 24 hours apart

b. Dose: 40 mg/kg body weight (18 mg/lb.)

Route: Sub-Q

Frequency: one treatment

Both of these treatments work very well. Continued use of tetracyclines in areas with high numbers of anaplasmosis cases can make the cattle susceptible to anaplasmosis. Consult with your veterinarian regarding this potential problem. Also, NuFluor® does not have a label for pinkeye at this time, so you will need a prescription, label, and withdrawal time from

your veterinarian to use NuFluor® for pinkeye. In severe outbreaks in cattle, the use of tetracyclines in the feed should be considered. Consult with your veterinarian regarding this possibility.

Another treatment option is to give Penicillin as an injection under the white part of the eyeball (the sclera). If you are not expert in this method, have your veterinarian train you on the proper way to accomplish this. Do not attempt this method without training. To achieve good results, give 1 ml (1 cc) under the sclera of both eyes for at least 3 days. This method achieves good results; but is less effective than the use of oxytetracyclines or NuFluor®.

Furazolidone spray or powder placed into the eye is better than no treatment; however, it is not as effective as the above methods. Also, your veterinarian's prescription and withdrawal time will be necessary to use this drug in cattle.

For many years, treatment with dexamethasone (Azium®) has been popular. Dr. George's research indicates that when this is given under the sclera, no difference in healing rate. Therefore, use of this product is not indicated.

Keep written records of treatments and results. Discuss these with your veterinarian as you reevaluate pinkeye prevention and treatment plans for the future. Also, if your cattle are copper deficient or selenium deficient, the number of pinkeye cases will be greater and the severity will be worse. Be sure your mineral program is working as this is important in the animal's immune response to this bacterial pathogen.

Dr. George is also been doing some exciting research work on pinkeye vaccines and this will result in the availability of new, more effective vaccines in the future. Keep tract of this column, as we will write about the new pinkeye vaccines as soon as they are commercially available.

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