

Ask A Vet: Lead Poisoning is in the News

Sunday, January 24, 2016

Dear Dr. Weldy's,

With the daily news covering the recent lead poisoning problems in Michigan of the municipal water supply I am beginning to worry about my cattle and horses. They are unthrifty and seem to be susceptible to illness. Could there be lead in their environment?

Dear Reader,

You have described one of the many lead poisoning symptoms we deal with and thank you for pointing out this serious cause of accidental illness and death in livestock. Have your veterinarian take blood samples for a definitive diagnosis.

Lead poisoning can occur in all domestic animals - cattle, horses, poultry, and other livestock. Often discarded tar paper and shingles are the source after a new roof is put on. They will eat tar paper due to its sweet taste. When discarded roofing is burned the lead is still present in the ashes in the burn piles. These lead contaminated ashes are licked up especially if the animals have a phosphorus deficiency which causes depraved appetite.

The lead salts on top of old batteries often are licked by animals craving the salty taste. Used oil, flaking lead paint, grease and old linoleum are other enticing sources of lead.

Clinical signs in chronic cases in cattle and horses include wasting, loss of appetite, anemia, and sometimes difficulty breathing. Higher lead levels exhibit abdominal pain and diarrhea and a combination of nervous signs like staggering gait, muscle spasms, blindness, head pressing, and convulsions. Death may occur at any time depending on the total ingestion of this heavy metal. Cattle are the most sensitive to lead, followed by horses, birds, and pigs are the least susceptible.

Treatment can be difficult and sometimes expensive. The first and most important step in treatment is to remove the source of lead contamination. Blood concentrations are used to determine the severity of the poisoning and treatment is based on the use of a chelating agent, calcium EDTA intravenously and cathartics to remove the lead from the GI tract. Continued treatment over several days may be necessary along with supportive therapy, fluids, and sedatives to control convulsions. In cases of high exposure over a considerable length of time, treatment may not be successful.

Proper disposal of lead sources is the key to prevention. Lead batteries should be traded in when purchasing new batteries and sold to scrap merchants who properly process them. Toxic waste disposal of lead products is very important and only certain dump sites accept lead containing materials. Care should be taken to protect water supplies when lead containing materials are buried or old lead pipes are still in use.

Local government information on disposal of this toxic waste is available and certain dates and locations are set in many communities for disposal of these hazardous materials. In my livestock practice experience lead poisoning is often the result of accidental exposure due to animal owners not knowing the sources of lead and not realizing how little of it can cause severe illness or death.

-Dr. Jerry Sellon