

Ask A Vet: Lead Poisoning in Horses and Cattle

Sunday, October 19, 2014

Dear Dr. Weldy's,

We recently had our veterinarian out to examine our horses for their chronic weight loss, lack of appetite, and general poor performance in spite of our efforts to correct the problem. The Dr. discovered they were suffering from lead poisoning due to improperly disposed roofing material we had burned in their paddock after re-roofing our barn. Please advise your readers of this danger as we lost one mare and have several other very sick horses.

-Hope This Helps

Dear Reader,

You have described one of the many lead poisoning cases we deal with and thank you for pointing out this serious cause of accidental illness and death in livestock. Lead poisoning can occur in all domestic animals - cattle, horses, poultry, and other livestock. Discarded tar paper and shingles have a sweet taste and are often eaten by horses and cattle. As you discovered the lead is still present in the ashes left over in the burn piles and are licked up especially if the animals are phosphorus deficient which causes a 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 like your 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. 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