

One common factor has quickly become evident as we continue to look into various insidious diseases. Because they all have gradual, yet harmful and potentially fatal effects, these diseases are best managed if the producer finds a way to prevent them from ever occurring in the herd. This next insidious disease we will discuss is no different. Hardware disease is one that is best prevented if possible. This week we want to talk about some symptoms and types of prevention for this disease.

Hardware disease in cattle is caused when an object, such as a wire or sharp piece of metal, pierces through the stomach wall and into the heart sac of the animal. This occurs if the cattle gain access to such foreign objects and ingest them. Once the metal is ingested, it often settles in the part of the cow's stomach known as the reticulum. As the cow's digestive system and muscles contract, pressure is placed on the reticulum. This results in the metal, or "hardware", being pushed **through** the lining of this portion of the stomach, through the diaphragm, and into the heart sac. Although not all ingested hardware penetrates the heart sac causing hardware disease, it is important to know some key symptoms of this disease in order to identify it as soon as possible.

Some cattle with hardware disease may have a poor appetite and may seem hesitant to move. They may also seem hump-backed and show signs of pain when defecating, and may appear to be bloated. In progressed cases of hardware where the heart has been perforated, fluid may accumulate around the heart, resulting in a swollen looking brisket area. This accumulated fluid on the heart will create abnormal heart sounds heard through a stethoscope. The cow's jugular vein may look distended or enlarged, and due to fast, shallow breaths she may appear to have a respiratory problem. Unfortunately, by the time these signs of heart failure occur, the heart sac is already severely damaged and it is likely too late for effective treatment. Therefore, prevention of the disease is the best plan of attack to have against this disease.

Since hardware disease is caused when cattle ingest hardware or sharp foreign objects, the best form of prevention is to deny the cattle access to any such objects. Yet, this can prove much easier said than done. Unless you thoroughly check every square inch of the pen, pasture, feed, hay, and other things the cattle are exposed to, it is impossible to guarantee that they will not have an opportunity to ingest a foreign object that could cause hardware disease. However, many producers find that administering magnets in the cattle proves to be an efficient method of prevention. The magnet, given orally like a bolus, settles in the reticulum- the same place the ingested hardware settles. Here, the magnet attracts the foreign metal objects and keeps them contained to a small area. Then, as the stomach contents churn, the magnet will attract metal, and keep bringing it back away from the stomach wall, thus preventing the metal from penetrating through the stomach wall.

Hardware disease is a particularly dangerous insidious disease due to the inability to completely prevent cattle from ingesting foreign objects. As a producer, it is wise to understand the symptoms and risks of this disease. If you detect any cattle in your herd displaying symptoms of hardware disease, act immediately and have them examined by a veterinarian. If you have any questions about hardware disease, contact us or visit <http://extension.missouri.edu/p/G7700>.

The Oklahoma National Stockyard prices for feeder steers medium and large 1 sold on Monday, August

30, 2016 are as follows: 471lb- \$161, 564lb- \$153.07, 665lb- \$143.99, and 789lb- \$138.15. The price for October 2016 feeder steers on the Chicago Mercantile Exchange was \$134.73 at opening September 2, 2016.

Thanks,  
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