



Northwest Veterinary Associates, Inc.

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Bloody Cow Manure ***Prepared by Dr. Tom Linden***

I've come across several cases of Hemorrhagic Bowel Syndrome ("bloody gut") in my recent travels and wanted to provide a refresher on some conditions/diseases that may cause blood in manure. For the sake of keeping the newsletter from becoming a novel, I'll stick to weaned animals and leave calves on milk for another time.

First, a short discussion on the type of blood you may see in manure. We often refer to brighter red blood as frank blood. This typically denotes bleeding further "down the pipe", or, towards the end of the animal's digestive tract. When an animal is bleeding towards the beginning of the digestive tract, that blood will be digested just like other feed material the animal consumes. This process results in a dark, tarry manure that we'll sometimes compare to the color and consistency of coffee grounds. This darker blood may appear as chunks within normal manure, rather than the entire contents being abnormal.

The characteristics of the blood may thus be used to help determine what may be going on with the animal in question.

Here is a collection of possible causes of bloody manure:

Hemorrhagic Bowel Syndrome (HBS) – A syndrome that presently still falls under the category of not fully understood, HBS causes massive bleeding and obstructive blood clots within the small intestines. *Aspergillus* and *Clostridium* have often been implicated as causative agents, however, when trying to elicit this syndrome in normal cows by inoculating them with those agents, it could not be duplicated. Risk factors associated with HBS include mature, high producing cows eating a high energy TMR around peak milk. In addition to dark bloody manure (which may actually have a strawberry jam consistency) cows will acutely go off feed and milk, act colicky and bloat, become depressed, and eventually go down. They will be cool to the touch with pale mucous membranes, and typically die with 24-48 hours. The best chance of treatment is usually a combination of surgically removing or massaging the blood clots and supportive therapy (fluids, pro-motility agents, anti-inflammatories) but is often unsuccessful.

In my own experience it's actually very common for HBS to progress so quickly that the only sign is sudden death, and blood in the intestine is only found at post-mortem examination after the cow succumbs to the complications of the syndrome.

Abomasal ulcers – The risk factors and history for animals with abomasal ulcers often mirror those for HBS. A second common presentation is towards calving, with the thought being an increase in stress hormones and blood being diverted to the growing calf predisposes the animal. Thirdly, a history of NSAID (non-steroidal anti-inflammatory drugs) over usage. Signs will be dependent on if the ulcer is a) bleeding and/or b) perforating, but common ones include abdominal discomfort (manifested by grinding teeth or nose pressing), pale mucous membranes, decreased feed intake, and dark manure. Perforating ulcers generally cause signs related to peritonitis, including fevers. Treatment for milder cases relies on removing high energy/protein feeds and offering a more fibrous diet for 1-2 weeks. More severe cases are aimed at treating the concurrent peritonitis (antibiotics, fluid) and/or addressing blood loss with pro-coagulation medicine (Vitamin-K) and blood transfusions.



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Irritation – Although not always a consistent finding, any condition resulting in copious diarrhea and straining may cause irritation of the rectum and localized bleeding. A good example of this is severe coccidiosis in a weaned heifer. Addressing the cause of the diarrhea will alleviate the bleeding.

Enteritis – Diseases including but not limited to *Salmonella*, Winter dysentery (bovine coronavirus), and BVD may cause frank blood to be present in manure. Signs and treatment of these various diseases can vary greatly so a conversation with your herd veterinarian about an animal or animals with frank blood in their manure is certainly warranted.

