WHY IS THERE BLOOD IN MY COW’S MANURE?

There are several things that really seem to get the attention of dairy producers. One such situation is seeing blood in the manure of mature dairy cows. In order to figure out what is going on, several considerations should be addressed. How many cows are affected? Do affected cows appear really sick or are they otherwise fairly normal? Do the cows have diarrhea? Is the blood digested or undigested?

Manure containing digested blood has a dark brown or black, tar-like appearance and is called melena. The presence of undigested blood (still red in colour) in manure is referred to as hematochezia. Whether blood is digested or not depends on its point of origin in the gastrointestinal (GI) tract. Generally speaking, digested blood comes from the rumen, abomasums, or beginning of the small intestine. Common causes of melena include rumen ulcers, abomasal ulcers, abomasal torsion, and intussusceptions of the small intestine (a condition where a portion of the bowel telescopes on itself). Melena can also be caused by oak (acorn) toxicity, overdoses of certain drugs and consumption of some chemicals. Undigested blood originates from points further downstream in the GI tract. Several common reasons for the presence of undigested blood in the manure are discussed below.

Winter Dysentery

This condition occurs more commonly during the colder months, and first calf heifers are often more severely affected. A very rapid onset is typically observed in which a significant portion of the herd develops diarrhea over a period of 2-4 days and fewer animals become affected thereafter. The disease typically runs its course through a herd in 12-18 days, but may persist for longer periods, particularly in large herds. Affected animals occasionally have a slight fever, are usually somewhat slow and depressed, and experience decreased milk production. Their diarrhea is watery, often has bubbles form in it, contains varying amounts of blood, and has a putrid odor. Current evidence indicates this disease is caused by a coronavirus. Viral infections do not respond to antibiotic therapy, so this form of treatment is of no benefit in uncomplicated causes of winter dysentery.

T-2 Toxin

T-2 Toxin is a mycotoxin occasionally found in grains, concentrates, and some forages. It is a strong irritant of the GI tract and is damaging to the intestines. Cattle consuming amounts of T-2 toxin may experience decreased feed intake and milk production, diarrhea that often contains blood, decreased immune function and occasionally death. Other mycotoxins may produce similar effects. To treat and/or prevent this problem, remove the contaminated feedstuff, feed less of the contaminated feedstuff and/or include a mycotoxin binder (adsorbent) in the ration.

Salmonellosis

Salmonella are an extensive group of bacteria (over 2000 serotypes identified) that can cause infections in many different species, including people. Cattle infected with Salmonella are generally very sick, with high fevers (>104°F) and severe diarrhea. The diarrhea may contain blood, mucus, and/or fibrin (a thick sometimes chunky yellowish or grayish substance). Pregnant cows may abort, and infected cows sometimes die. The number of animals affected can vary from as few as one or two to many more, depending on the strain of Salmonella involved and source of the infection. This is a serious disease that should receive
immediate attention if suspected. Treatment should include antibiotics, non-steroidal antiinflammatories and fluids containing electrolytes. Control and prevention of salmonellosis should focus on minimizing the exposure of healthy animals, eliminating carrier animals from the herd, environmental disinfection, removal of contaminated feedstuffs, elimination of contaminated water sources and possibly vaccination.

**Bovine Viral Diarrhea (BVD)**

Bovine viral diarrhea is a fairly common viral disease of cattle that has many potential negative effects. This disease can present in many ways and potentially affects the GI tract, immune system, respiratory system and/or reproductive tract. Acute herd outbreaks occur most commonly in unvaccinated or improperly vaccinated herds. Affected animals usually have fevers, nasal discharge, oral ulcers, decreased feed intake and milk production, and diarrhea that may contain undigested blood. Treatment should focus on supportive care and prevention of secondary bacterial infections.

This is not an exhaustive list of the reasons why blood appears in manure. Use this information as a guide to help identify possible causes and make management decisions in the event that you observe blood in your cow’s manure. If a serious condition is suspected, call your veterinarian immediately. (T. Bass)

**Cutting Forages in Afternoon Yields Benefits**

Research by Robert Berthiaume, an expert in forage systems at Valacta shows that if you cut forages in the afternoon you can improve the digestibility of your dairy feed. Higher levels of non-structural carbohydrates (NSC) can promote the synthesis of microbial proteins, lead to a more efficient use of dietary nitrogen (N) and result in a 5-10% increase in milk productions. Plant matter is composed of about 75% carbohydrates, and NSCs are the simple sugars such as glucose, fructose, lactose, sucrose and starch. Increases in NSC levels reduce proteolysis (the breakdown of proteins into amino acids) in the silo and balances the supply of fermentable energy and rumen degradable protein which, in turn, enhances ammonia capture by ruminal microbes. Legumes and grasses with high NSC levels also tend to have lower concentrations of acid detergent fibre and neutral detergent fibre. The time of cutting has the most effect on increasing the level of NSC in forages, which peaks 11-13 hours after sunrise.

The wide swathing technique has become more popular because it helps improve sugar levels and the quality of the forage. Nitrogen fertilization is the next most important factor in enhancing NSC levels in forages. Lower nitrogen fertilization can increase NSC and reduce crude protein concentrations. Too little fertilizer, however can affect yields. The level of NSC does vary by forage species. Eastern Canada shows alfalfa has similar NSC levels to timothy but the types of NSCs present in legumes and grasses are different. Starch and pinitol are carbohydrates found in legumes. Genetic selection shows potential for improved cultivars with increased levels of NSC. Berthiaume would like to do more research that can be applied on the farm such as genetic selection for what he calls “sweet alfalfa”. He said he could get practical results faster with genetically modified cultivars but producers don’t want to use them so it will take time through traditional breeding techniques (Cattlemen)

**BAG DELIVERY DAYS**

**MONDAY**—Dundalk, Kenilworth, Conn Area
**TUESDAY**— Holstein, Mount Forest, Arthur, Gorrie, Listowel, Gowanstown, Moorefield Area
**WEDNESDAY**—Clifford, Fordwich, Chepstow, Kincardine Area
**THURSDAY**—Chesley, Ayton, Port Elgin, Mildmay Area
**FRIDAY**— Alma Area

There are no set delivery days for areas that do not appear on this list.