Are There Poisons on Your Farm?

Charles E. Gardner, DVM

Do you have poisons on your farm? The answer is almost certainly “yes”. During my years in practice, I saw many cases of dairy animals being poisoned by a wide variety of substances. One of the most common offenders was urea. You may have urea on your farm as a feed additive, and it is also present in fertilizer and some ice melting products. Dairy animals seem to like the taste of it, and they will quickly eat fatal amounts. I saw cases of urea poisoning when cows got into the feed mixing room, when a fertilizer spreader was left in a field with heifers, and when a “lick tank” was put into a group of dry cows. One of them stood and licked at the wheel until she poisoned herself with urea.

There is an antidote to urea poisoning, which is a gallon of vinegar pumped into the rumen for an adult cow. The acid nature of vinegar will neutralize the urea, but it must be given very quickly after the urea is consumed. I learned that when several animals consume urea, treat the ones still able to stand. It is too late once they go down.

Organophosphate insecticides are highly toxic. Bags sometimes tear or spill, and animals somehow gain access to the material. In one situation, corn was dumped on a floor where insecticide had been spilled years earlier. When the corn was mixed into a load of feed and fed, every cow in the herd of forty died. In another case, insecticide spilled on the floor of the hay maw. The owner swept it up with a broom but did not realize that some slipped through the floor planks into a pen of calves. Several deaths occurred. Atropine is the antidote, but it is often too late once animals show signs of toxicity.

Japanese Yew is an ornamental yard plant that is common in Pennsylvania. It is also highly toxic to cattle. I encountered several cases where people trimmed the plants and then threw the trimmings into a field with cattle. Cows will die within a few minutes of eating this plant. Make sure your neighbors are aware of this fact. Ask them to never throw any trimmings into your fields.

One more type of poisoning is nitrate in plants fed as green chop. This usually occurs when we get a lot of rain after a prolonged dry period. Growing plants will draw in a lot of nitrogen, which becomes nitrate in the plant. One of my clients lost eighteen heifers when the above conditions occurred. Silage is usually safe, because the fermentation process breaks down the nitrate.

Poisoning can occur in people on farms also. Silo gas and manure gas are invisible and odorless, but highly toxic. Never go after someone who has collapsed near fresh silage or manure. In all probability you will succumb as well. Common barn chemicals like CIP detergent, acid and sanitizer can also be poisonous. Make sure all chemicals are out of reach of children.
The list above covers the most common types of poisonings, but there are others. Even normal feed ingredients can be toxic if over-consumed. If cows get access to large amounts of grain, especially high moisture grains, death can come from acidosis. I once did a necropsy on a heifer found dead and found her rumen to be full of potatoes. This group of animals had free choice access to potato waste. Most of them ate only a few, but his animal apparently really enjoyed them. As with corn, potatoes are high in starch, and this can lead to fatal acidosis.

The cliché “anything that can go wrong will go wrong” applies to poisonings. Cows get into places they should not. Bags tear and spill. Children are curious about things. Do your best to separate living beings from things that can harm them.