

Herbicides and Plants: Incidental Toxins?



Herbicides

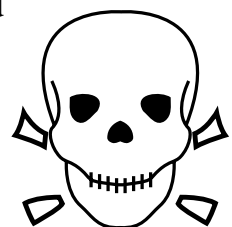
Did you know that many common herbicides used to control annoying weeds and other plants can be toxic to many livestock species and companion animals? Improper use of these chemicals is the major reason for animal losses. Strict adherence to the manufacturer's recommended use of these products and proper storage of any unused compounds can effectively minimize most livestock and companion animal losses.

Commonly used herbicides associated with livestock mortality are as follows:

- **Ammonium sulfamate (Ammate):** Large doses (1.5 grams per kilogram or more) have induced ammonia poisoning in ruminants.
- **Borax:** Moderate to large doses are toxic. Borax is frequently used not only as a herbicide, but also as an insecticide (such as cockroach control), and as a soil sterilant.
- **Dinitrophenol and dinitrocresol:** Poisoning can occur if animals are sprayed accidentally or have access to

recently sprayed herbage. These substances are highly toxic and readily absorbed through skin and lungs.

- **Pentachlorophenol (PCP):** Used as a herbicide, fungicide, and wood preservative, this substance is highly toxic when ingested or absorbed through skin and lungs.
- **Inorganic arsenicals (sodium arsenite, sodium trioxide), and organic arsenicals (cacodylic acid and derivatives):** Effects of this poison may be cumulative (if consuming treated foliage or herbage for several consecutive days) or sudden (if single doses of 22 to 55 milligrams or more per kilogram of body weight are ingested).
- **Thiocarbamate compounds:** Toxicity results only through spillage or careless handling. Fatalities are uncommon, but general unthriftiness, rumen dysfunction, hair loss, or muscular weakness, particularly of the hind limbs, may result.



Use caution. Always read the label for proper administration and safe containment recommendations. Many poisonings resulting from these compounds have no effective treatment or known antidote.

Common Plants

Did you know that many common plants themselves can be toxic to many livestock species and companion animals? Plants contain naturally occurring, biologically active chemicals. Ingestion of certain varieties of plants and their toxic chemicals can result in considerable economic losses. Depending on the plant type and the amount of toxin ingested, losses can result in high morbidity (ill thrift, poor production, low reproductive performance), and even death.



Fortunately, livestock losses attributable to oral ingestion of poisonous plants are negligible. Many toxic plants are not palatable to livestock, and the animals will select more palatable legumes, forages, and other available feedstuff provided.

Take precautionary measures throughout the year to minimize the risk of accidental poisoning. Increase your awareness and recognition of common varieties of plants potentially toxic to grazing animals, particularly sheep, goats, cattle, and llamas. Control growth of these plants or

eliminate their presence in pastures used to graze livestock to avoid incidental consumption. Ruminant animals will choose to eat other palatable feedstuff, forages, and legumes when they are available. Therefore, avoid starvation and overcrowding situations.

Contact a veterinary toxicologist or veterinary diagnostic laboratory for information and assistance in identifying potentially poisonous plant varieties. The following are some common plants potentially toxic to ruminant animals (sheep, goats, cattle, llamas), and pets:

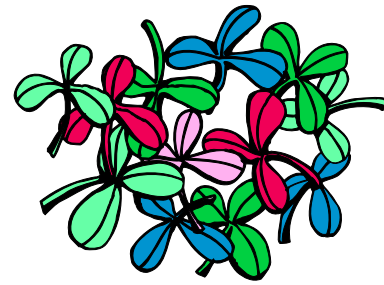
Alsike Clover	Mustards
Black Locust	Oats
Black Walnut	Pigweed
Brackenfern	Ragwort
Dutchman's Breeches	Red Maple
Fescue	Senecio
Green False Hellebore	St. Johnswort
Horsetail	Star of Bethlehem
Johnsongrass	White snakeroot
Larkspur	Yellow and white
Lupine	sweet clover

Common household plants poisonous to pet animals too include the following:

Catnip	Easter Lily
Dieffenbachia	English Ivy
Dumbcane (Aroids)	Poinsettia

For incidental poisoning, call:

- **ASPCA National Animal Poison Control Center:**
1-888-426-4435 (May have consultation fee.)
- **National Pesticide Information Center:**
1-800-858-7378.



The following websites provide more related information on plants that are poisonous to livestock:

- **A list of poisonous plants:** www.ansci.cornell.edu/plants/
- **Plants toxic to animals:** www.library.uiuc.edu/vex/toxic/intro.htm
- **Plants by the animals affected:** vet.purdue.edu/depts/addl/toxic/byanim.htm
- **Poisonous plants of veterinary importance:** cal.vet.upenn.edu/poison/



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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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