# 50 Toxic Plants: The Silent Slayers at Your Farm

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Once you buy enough land to support a survival farm and choose the kinds of animals that will live on it, you will still have a long way to go before creating a viable and sustainable farm. Unfortunately, many people that create survival farms fail to realize that toxic plants can easily wipe out all animals on the farm, or make milk and other products inedible.

In order to prevent this from happening, you should be aware of plants that are poisonous or harmful to animals you plan on keeping as well as make sure you understand how they get introduced into your grazing areas.



Common Ways Toxic Plants Get Introduced to Grazing Areas

Surprisingly enough, some of the most toxic plants to livestock come straight from the nursery. This includes herbs, flowers, fruits, and even vegetables that you may decide to grow for food, medicine, or landscaping purposes.

If you visit the local plant nursery, you are sure to be surprised to find many plants and seeds are available for vegetation that does not naturally grow in your area. Some natural perennials may grow as annuals or biennials in your area.

In other situations, the plants you buy may actually turn into an invasive species.

No matter how long these plants grow in your area, they will still be poisonous to livestock. See below the list of the most common 50 plants to avoid when feeding your farm animals, in order to keep them healthy and safe.

## PLANTS TO KEEP AWAY FROM YOUR LIVESTOCK

| Common Names | Scientific Name | Cow | Chicken | Goat | Horse | Pig | Sheep | Don't feed animals with... | Poison Type |
|---|---|---|---|---|---|---|---|---|---|
| Alfalfa or Lucerne | Medicago sativa | x | x | | | | x | flower, fruit, leaf, root, seeds, stem | Amino Acid (canavanine), and Glycoside (saponins) |
| Red or White Clover | Trifolium.x | x | | | x | | | flower, fruit, leaf, root, seeds, stem | nitrate |
| Azalea and Rhododendrons* | Rhododendron.x | x | x | x | x | x | x | flower, fruit, leaf, root, seeds, stem | Alkaloid – Grayanotoxin (neurotoxin) |
| Begonia** | Begonia.x | x | x | x | x | x | x | flower, fruit, leaf, root, seeds, stem | Chelanting – Oxalate – oxalic acid |
| Birdsfoot Trefoil | Lotus corniculatus | x | | | | | x | | Phenol (tannin) |
| Black Locust | Robinia pseudoacacia | x | x | x | x | | x | leaf, seeds, root | Lectin (robin and phasin) |
| Bleeding Heart, Dutchman's Breeches, or Squirrel Corn | Dicentra.x | x | | | | | | flower, fruit, leaf, root, seeds, stem | isoquinolone alkaloids |
| Boxwood | Buxus.x | x | | x | x | x | x | flower, fruit, leaf, root, seeds, stem | alkaloid (buxine, cyclobuxine, cycloprotobuxine) and Butyraceous Oil |
| Bracken Fern | Pteridium aquilinium | x | | | x | x | x | flower, fruit, leaf, root, seeds, stem | Glucoside (prunasin and ptaquiloside), thiaminase |
| Broccoli | Brassica.x | x | x | x | | x | x | root, seeds | glucosinolates, brassica, anemia factor |
| Buttercup or Crowfoot | Ranunculus.x | x | | x | x | | | flower, fruit, leaf, root, seeds, stem | protoanemonin |
| Cabbage | Brassica.x | x | x | x | | x | x | root, seeds | glucosinolates, brassica, anemia factor |
| Celandine | Chelidonium majus | x | | | | | | stem | isoquinoline alkaloids |
| Cocklebur | Xanthium strumarium | x | | | | x | | leaf, seeds | Glycoside (carboxyatractyloside) |
| Chives, Onions | Allium.x | x | | | x | | | leaf, root | Amino Acid (SMCO - S-methyl-L-cysteine sulphoxide) |
| Common or Black Nightshade, Horse Nettle, Buffalo Bur | Solanum.x | x | | x | x | | x | fruit, leaf | Glycoalkaloid (soladulcidine and solanine) |
| Corn Cockle | Agrostemma githago | x | x | x | | | | seeds | (Glycoside – saponin) githagin |
| Daffodils*** | narcissus.x | x | x | x | x | x | x | flower, fruit, leaf, root, seeds, stem | alkaloids (lycorine and galantamine) and glycoside scillaine |
| Delphiniums or Larkspurs | Delphinium.x | x | | x | | | | flower, fruit, leaf, root, seeds, stem | alkaloids (delphinine, ajacine, and others) |
| Dock Weed | Rumex.x | x | | | | | x | leaf | soluble oxalates |
| Dogbane | Apocynum.x | x | | x | x | | x | root | glucoside (cymarin) |
| Elderberry | Sambucus canadensis | x | | x | | | | fruit, leaf, roots, stem | Glucoside (sambunigrin) |
| Fiddleneck | Amsinckia intermedia | x | | | x | x | | seeds | Alkaloid (intermedine and lycopsamine) |
| Flax | Linum usitatissimum | x | | | | | x | flower, fruit, leaf, root, seeds, stem | cyanogenic glycoside |
| Foxglove or Digitalis | Digitalis purpurea | x | | x | x | | | flower, leaf, seeds | cardiac or steroid glycosides |
| Garlic Mustard**** | Alliaria petiolata | x | | x | | | x | flower, fruit, leaf, root, seeds, stem | low level cyanide |
| Golden Chain or Laburnum | Laburnum anagyroides | x | | | x | x | | flower, fruit, leaf, root, seeds, stem | Alkaloid (cytisine) |
| Halogeton | Halogeton glomeratus | x | | | | | x | stem | soluble oxalates |
| Holly | Ilex Aquifolium | x | x | x | x | x | x | fruit, leaf, seeds | Alkaloid (theobromine) |
| Horse Chestnut or Buckeye | Aesculus.x | x | | x | | | | fruit | Unknown, possibly saponins, narcotic alkaloids, or glycosides. |
| Horsebrush | Tetradymia.x | x | | | | | x | leaf | tetradymol |
| Irises***** | Iris.x | x | | | | x | | root | Toxic protein (irisin, iridin, or iridine) |
| Jimsonweed, Downy Thornapple, Devils Trumpet or Angels Trumpet | Datura.x | x | | x | x | | | flower, leaf, seeds | Alkaloid (atropine, scopalomine, and hyoscyamine) |
| Lambs Quarters | Chenopodium album | x | | | x | x | x | flower, fruit, leaf, root, seeds, stem | nitrates |
| Lantana or Verbena | Lantana camara | x | | x | | | x | fruit | Alkaloid – triterpenes |
| Lilies******* | Lilium.x | | | x | | | | flower, fruit, leaf, root, seeds, stem | possibly saponins |
| Locoweed | Astragalus and Oxytropis.x | x | | | x | | x | flower, leaf, stem | selenium, nitro compounds, and alkaloid (swainsonine) |
| Lupine | Lupinus.x | x | | x | | | | seeds | Alkaloids(lupinine, anagyrine, sparteine, and hydroxylupanine) |
| Milkweed | Asclepias.x | x | | x | | | x | fruit, leaf, stem | Glucoside (desglucosyrioside, syrioside) |
| Mustard | Brassica.x | x | x | x | | x | x | root, seeds | glucosinolates, brassica, anemia factor |
| Oak Trees | Quercus | x | | | x | | | leaf | Phenolic – tannin (gallotannins, querotrin, and quercitin) |
| Oleander | Nerium oleander | x | | x | x | | x | flower, fruit, leaf, root, seeds, stem | Glucosides (nerioside, oleandroside, saponins, cardiac glycosides) |
| Pigweed | Amaranthus.x | x | | | | x | | leaf | nitrate |
| Poinsettia, Spurges, Snow on the Mountain | Euphorbia.x | | | | x | | x | leaf, stem | Alkaline – diterpene (phorbol esters) |
| Pokeweed | Phytolacca americana | x | | | x | x | x | flower, fruit, leaf, root, seeds, stem | Glycoside – saponin) phytolaccatoxin, phytolaccigenin |
| Sorghum | Sorghum.x | x | | x | x | | | leaf, stem | Glycoside (dhurrin), nitrate |
| Tall Fescue | Festuca arundinacea | x | | | x | | | flower, fruit, leaf, root, seeds, stem | Alkaloid (diazphenanthrene, pyrrolizidine, and ergot) |
| Turnip | Brassica.x | x | x | x | | x | x | root, seeds | glucosinolates, brassica, anemia factor |
| Various Poppies | Papaver.x | x | | | | | | flower, fruit, leaf, root, seeds, stem | Alkaloid (codine, morphine, protopine) |
| Wild Cherries, Black Cherry and Choke Cherry | Prunus.x | x | | x | x | x | x | leaf, seeds | Glycoside (amygdalin and prunasin) |
| Yarrow****** | Achillea.x | x | | x | x | | x | flower, fruit, leaf, root, seeds, stem | Glycoalkaloids (achillen), monoterpenes, sesquiterpene lactones |

* Honey made from nectar can also be poisonous to animals and humans.

**Lower levels of toxin in leaves, thus many sites consider it safe. Most poison is found in the bulbs.

***Largest amount of poison found in roots and bulbs.

****Contains low levels of cyanide that are not usually lethal. Does cause gastric irritation, reduces milk and also makes it bitter.

*****Proteins are not always toxic to every species.

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Securing Grazing Land from Toxic Plants

If you are determined to grow these plants, then be sure they will be located in an area where livestock cannot get to them.

In addition, some plants have pollen that can contaminate water and other resources. This exposure can be fatal to sensitive animals without you even realizing where the problem came from.

Therefore, you may want to isolate these plants in a greenhouse or take other measures to prevent these plants from coming into contact with livestock.


Azalea


Begonia


Dockweed


Black Locust


Boxwood


Floxglove


Bracken Fern


Buttercup


Horse Nettle


Chives


Delphinium


White Clove


Fescue


Lamb Quarters


Yarrow

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Keeping Grazing Areas Free of Toxic Plants

Aside from avoiding plants that may harm livestock, there are many native plants or weeds that will need to be removed from grazing areas. You can use a combination of four methods to eliminate toxic plants from pastures:

- Use herbicides that will not harm livestock. Most commercial herbicides will only get rid of specific species of plants. You can just as easily use a mixture of vinegar and dish detergent on a hot sunny day and spray it just on plants to be eliminated.
- Manually uproot plants and burn them in an area where smoke filled with plant oils will not get near livestock or human living areas.
- Look for plant species that will crowd out poisonous plants or prevent them from thriving. Essentially this is the opposite of companion planting for your garden.
- Make the soil as inhospitable as possible to poison plants by altering the pH or other methods. Just be sure that grass or other intended pasture plants can grow in the area and provide proper nutrition for livestock.

Symptoms of Poisoning in Livestock by Most Common Toxin Types and Treatment

No matter how hard you try, there are going to be a few poisonous plants that slip into pasture lands. In most cases, the animal may be sick for several days before making a full recovery.

Unfortunately, there are also some plants that are so toxic just a few berries or leaves will kill an animal within hours.

It is very important to realize that the following emergency treatment methods may still fail even if the animal does not look very sick. The amount of toxin consumed, emptiness or fullness of stomach at time of ingestion, and many other factors will contribute to success or failure of treatment.

The emergency treatments in the following chart is based on the general class of poison. Many plants have specific toxins within each category that may require additional or specialized treatment. But there are hundreds of poisonous plants and also hundreds of chemicals that are well beyond discussion here. You can contact poison control centers and find out more about specific treatments if you so choose.

That being said, in a crisis situation these resources may not be available. In that case, perhaps it can be said that trying these generalized remedies is better than not trying anything at all.

In order to determine which plant poisoned livestock, you can look at material vomited for bits of plant material, take note of breath odor, and also look in the area for plants with signs of chewing on them.

Toxins, Symptoms and Basic Treatments

Alkaloid

- Symptoms of poisoning: Diarrhea, vomit, weakness, collapse, fever, confusion, muscle twitching, apparent blindness, nervous walking, drooling.
- Basic treatment: Alkaloid poisoning can occur over a period of days or more quickly depending on amount consumed. It is best to isolate the animal and see if it recovers;

however it will usually be more prone to disease and stunted growth. For scopolamine and atropine poisoning, try giving vinegar orally since it is an acid that can help lower pH.



Glycoalkoid

- Symptoms of poisoning: Vomit, diarrhea, dizziness, dilated pupils, paralysis, fever, hypothermia.
- Basic treatment: If animal has diarrhea, allow to continue until toxin is flushed out. Watch for dehydration and try to prevent. If no diarrhea, try to induce vomiting as a last resort.

Glycoside

- Symptoms of poisoning: Muscle tremors, seizures, rapid breathing, vomiting, diarrhea, colic.
- Basic treatment: Some poisons in this class can kill in minutes and with very little exposure. For cattle and horses, feed activated charcoal at 2 grams per 2 -3 kg of body weight (or some say 1 - 3 grams per kg). The charcoal will absorb any poison that has not yet gotten into the bloodstream. Induce vomiting in species where vomiting is possible.

Lecitin

- Symptoms of poisoning: Panting, rapid heartbeat, bright red mucus membranes. In later stages, mucus membranes and skin will turn pale and temperature decreases
- Basic treatment: Epinephrine injection if available - you will need to find out how much to use based on animal's weight. Administer IV fluids to keep blood pressure up

Mycotoxin

- Symptoms of poisoning: Lack of appetite, dark stool, low milk production, increased risk of infections. Short term symptoms include vomit, tremors, weakness, fever, increased heart rate, dehydration, seizure.
- Basic treatment: Eliminate moldy foods from feeding areas, prevent grazing in pastures where mold or fungi are present. Induce vomiting if appropriate for species, then administer activated charcoal. Use anti-seizure medication if available based on animal weight. IV fluids may also help if animal is in shock.

Nitrates

- Symptoms of poisoning: Trembling, rapid breathing, difficulty walking or moving. If the poisoning is over long periods of time, cattle may abort, also poor growth and low milk production. To avoid nitrate poisoning in usually safe plants, do not use ammonium sulfate or

urea (usually derived from urine) as a fertilizer source.
- Basic treatment: Isolate animal from foods that may contain nitrates. Administer Methylene Blue (usually available in tropical fish supply stores) via IV. It may require several doses. Methylene Blue is very irritating to skin; so cannot be administered orally. Note - these animals may no longer be fit for human consumption.

Oxalates

- Symptoms of poisoning: Mouth pain, swollen tongue or lips, increased salivation, throat swelling, drooling.
- Basic treatment: Keep airway open, use antihistamines if available and safe for species being treated.

Phenols

- Symptoms of poisoning: Burns around or in mouth, vomit, diarrhea, seizures, and sweating, rapid heartbeat.
- Basic treatment: Make sure you are wearing garments and gloves that reduce risk of exposure to phenols since they are easily absorbed through skin and via air. Try to induce vomit and then administer activated charcoal to absorb any poison remaining. If possible, intubate the animal and use CPR for animals. Usually there is no cure for phenol poisoning.

When it comes to raising animals on a farm, many people do not realize how many toxic plants exist in nature, let alone ones that can be introduced to satisfy other interests. In addition, the types of poisons and their treatment can be very complicated.

That said, if you notice an animal with symptoms of poisoning, you can try a few things to keep the animal alive and help it to recover.