# 50 Toxic Plants: The Silent Slayers at Your Farm

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.



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#### 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

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

<sup>&</sup>quot;\*Lover levels of toxin in leaves, thus may sites consider it safe. Most poison is found in the bubbs.

"\*Largest amount of poison found in roots and bubbs.

"\*Constrained to levels of cyanide that are not usually lethal. Does cause gastric initiation, reduces milk and also makes it bitter.

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

\*\*\*University to the contraction of the contract

#### 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.



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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.



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#### <u>Glycoalkoid</u>

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.

#### <u>Glycoside</u>

- 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

#### <u>Mycotoxin</u>

- 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.

#### 0xalates

- 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.



### Do You Have These 3 Healing Plants In Your Garden?

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