

Plant Poisoning

(based on a presentation by Murray Fowler)

This is an extract a presentation at the British Camelids Association Conference 2006 by Karin Mueller, University Physician Large Animal Medicine, Queen's Veterinary School Hospital, Cambridge.

Plants can be roughly classed depending on which body system they affect. However, signs often overlap, ie, the main effect may be on the heart function, but the animal may also show diarrhoea (digestive system). The following are some of the common poisonous plants and their action.

Acting on heart function

Oleander, foxglove and lily of the valley fall into this group. Oleander is very bitter and animals usually avoid it, but if dried, it becomes more palatable. One large oleander leaf is lethal for an alpaca! If only a little was eaten, the animal may only show depression and possibly diarrhoea. With larger amounts, the heart action becomes very irregular and will eventually stop. Because of the poor heart function, the animal will show breathing difficulty. The toxin in oleander acts fast and death is usually rapid.

Acting on digestive system

Rhododendron, azalea and ricinus (castorbean) are examples. Rhododendron does cause vomiting – usually very rare in ruminants, camelids and horses. You may also see drooling saliva, colic, difficulty breathing, staggering and weakness, and eventually collapse and death.

Acting on nervous system

Yew, deadly nightshade and datura fall into this group. All parts of yew are poisonous when fresh (leaves, bark, root and berries) and leaves also when dried. Death can be within a few minutes of eating the plant. The group of nightshade plants include potatoes and poisoning can occur when animals are fed green potatoes. Signs include trembling, difficulty breathing, hypothermia, slow heartbeat, staggering and paralysis, and also, with nightshade, digestive upset (diarrhoea, colic, etc.)

Acting on muscle

Hemlock is a common plant in this group. The animal becomes weak and unsteady, pupils are often wide. It has difficulty breathing and poor heart output due to the toxin's effect on the heart and chest muscles. You may notice a mouse-like smell on the animal's breath or urine.

Acting on liver

Ragwort and comfrey fall into this group. Ragwort is unattractive when fresh but becomes sweet (and hidden) in hay. Animals usually need to eat plant material over weeks or some months for the liver to become severely damaged. Unfortunately, once signs of disease become apparent, little can be done to treat the animal. Signs include jaundice, becoming sensitive to light (ie, getting 'sunburn'), dullness and occasional periods of frenzy, diarrhoea and staggering.

Stomatitis syndrome

Some houseplants, eg, Dieffenbachia, calla lily and philodendron, damage the tissues in the mouth when eaten. The animal shows head shaking, drooling saliva, thirst and a change in voice. It can be fatal due to swelling in the throat and resulting breathing difficulty, but this is rare. Treatment consists of washing out the mouth, possibly with some baking powder added to the water.

The following books may be of interest:

Poisonous plants in Britain and their effect on animals and man, MAFF, 1984.

Field guide to plants poisonous to livestock: Western US, by PR Cheeke & SA Weathers, 1998.

Poisonous Plants

It is important to check in and around the edge of paddocks for any plants that may be poisonous to alpacas. Any of these plants should be dug out and removed, or in the case of trees, fenced – remembering that alpacas have long necks and by standing on their hind legs, which they do, can reach a long way.

The following are just a few of the common plants that are harmful to alpacas in varying degrees.

Acorns	Grass Cuttings	Mercury
Alder Buckthorn	Ground Ivy	Monks Hood
Black Bryony	Groundsel	Oak
Black Nightshade	Hellebore	Pimpernel
Box	Hemlock	Poppy
Bracken	Hemlock Water Dropwort	Potato
Broom	Hemp Nettle	Privet
Buckthorn	Henbane	Ragwort
Buttercup	Herb Paris	Rhubarb
Celandine – Greater	Horse Radish	Rhododendron
Charlock	Iris	Rush
Cherry Laurel	Laburnum	St John's Wort
Chickweed	Larkspur	Sorrel
Clover	Lily of the Valley	Spurge
Columbine	Linseed	Thorn Apple
Cuckoo Pint	Lupin	White Bryony
Darnel	Marsh Marigold	Woody Nightshade
Deadly Nightshade	Meadow Saffron	Yew
Foxglove	Melilot	

Barbara Reed
November 2006