

Poisonous Plants in Winter

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INTRODUCTION

When visiting ranches or attending shows, I am often asked by breeders if plants found on their ranches may be poisonous to their alpacas. In almost all cases the answer is, unequivocally, “yes”. Very few poisonous plants, however, are ingested by well fed camelids. Furthermore, in this region during this time of year, the threat of plant poisoning is minimized due to winter dieback of many plant species. There are however, several poisonous species that even well fed camelids tend to browse. Some are evergreen woody plants that have been planted to provide winter greenery. This article will concentrate on the most deadly of the mid-Atlantic evergreen woody plants: Yews, Oleander, and members of the Heath family.

Although signs of poisoning are given for each group, or plant species, it is important to realize that each animal has its own physiological makeup and one animal may respond differently than another to a toxin. Signs of poisoning may also vary with the time of year, part of plant, and amount ingested. Therefore, not all signs may be seen at one time, or at all, before death occurs.

YEW

One of the most toxic evergreen plants in North America is the yew tree. Planted extensively as hedges, the most common species are the European (or English) Yew (*Taxus baccata*) and the Asian Yew (*T. cuspidate*). Both are extremely toxic: animals have actually been found dead with twigs and leaves hanging out of their mouths!

Ingesting yew leaves has killed both llamas and alpacas. In some cases animals have shown no signs before succumbing to the toxin; in others, animals have shown nervousness, trembling, difficulty breathing, and diarrhea. This plant causes sudden death; therefore, it has no place around livestock.

OLEANDER

Evergreen Oleander shrubs (*Nerium oleander* and *Cascabela thevetioides*) are extremely toxic. Ingestion of a very small amount of the leaves, twigs, flowers, and fruits have caused death in livestock and humans. The lethal dose for horses or cattle is 0.005% of their body weight; that would translate to 1/100 of a pound (approximately one leaf!) for a 100lb animal. The principle toxin is a cardiac glycoside (oleanderase nerioside) and has been diagnosed as a poison in llamas. Livestock will generally **NOT** graze this plant if good hay is available. Signs of poisoning include increased pulse rate (will decrease rapidly in terminal stage), discoloration of the mouth (white instead of pink), vomiting, weakness, and bloody feces. If death occurs it will usually follow within a day.

HEATH FAMILY

The heath family is a very large group of evergreen trees and shrubs. Members of the family are found throughout the Mid-Atlantic region. Mountain laurel (*Kalmia latifolia*), sheep laurel (*K. angustifolia*) and pale laurel (*K. polifolia*) all have been known to poison livestock. Several evergreen species, including western dog hobble (*Leucothoe davisiae*), rhododendron, and azalea (both belonging to the genus *Rhododendron*), are

known to have poisoned camelids (Larue Johnson 2003). The principle toxin is a resin, andromedotoxin (however arbutin, a glycoside of hydroquinone, is also present) and all portions of the plants are toxic, either green or dry. Other evergreen members of the family known to be toxic include mock azalea (*Menziesia ferruginea*) and Japanese pieris (*Pieris japonica*). Members of this family are, for the most part, avoided by livestock except under poor pasture conditions. However, in at least one situation I have observed llamas grazing on planted azaleas, even though plenty of pasture was present. The owner later informed me that there were no ill effects. Signs of poisoning include repeated swallowing, copious salivation, slow pulse, lowering of blood pressure, convulsions, progressive paralysis, and death.

WHAT TO DO IF YOU SUSPECT POISONING

If you suspect your alpaca or llama has ingested a poisonous plant, **CALL YOUR VET IMMEDIATELY!** Most plant toxins work fast, so it is important that you get help as quickly as possible. Remove either the animal, or the plant, from contact with the other. Keep a specimen of the plant if possible; this is necessary to properly identify the species, and potential toxin, involved. The specimen should include a generous portion of the leaves and, if present, the flower or fruit. Try to keep the animal calm: provide a safe (familiar) area, and a stall mate. It's not a good idea to give food or water unless so instructed by your vet.

It is important to know what plants are growing around your farm: which ones are safe, and which ones are not. Local experts in your area including botanists at local universities or community colleges, extension agents, and your vet, can help you to

identify potential problem plants. If you need help identifying a plant, feel free to contact me.