

# Ask A Vet: Dangers of Toxic Plants

*Sunday, July 9, 2017*

Dear Dr. Weldy's,

I just had my horse treated for nightshade poisoning the other day. Are there other plants I need to be aware of this time of year?

-Concerned Reader

Dear Concerned,

As a matter of fact there are several plants that as they become wilted in late summer become more toxic and can be lethal. The first thing to remember is that the degree of toxicity is very much related to the amount the horse eats. For example, if a horse only eats a few leaves of a plant but that plant contains large concentrations of toxin, it should kill that horse. Poisonous plants can cause a variety of problems from nervous systems disorders ( staggering or ataxia, visual problems, seizures), depression, colic, photo sensitivity issues ( areas that are white might be inflamed or red), or abortion in pregnant mares. Here are some examples to watch for: Glycosides that are found in sorghum or hydrangea can break down to hydrocyanic acid causing death. The glycosides found in foxglove and oleander can affect the heart. Coumarin found in young buckeye tree leaves or sweet clover can cause abnormal bleeding. Those in mustard plants can interfere with thyroid function and those in wild radishes can cause intestinal irritation ( colic); Alkaloids can cause disease of the heart, liver or nervous system The alkaloids are found in rattle box and yew (hence don't be trimming those ornamental bushes around the house and throw them over the fence for horses or cattle to eat) ; Resins are toxic chemicals that affect the nervous system and are found in mountain laurel rhododendron, water hemlock and milkweed ; Nitrates that are converted to nitrites can hinder the hemoglobin found in blood which carries oxygen to body cells. These nitrites are found in sorghum, nightshade and heavily fertilized pastures.

Although plants are bitter or difficult to eat like yellow starthistle, they can become addictive. In the case of nightshade poisoning you mentioned earlier, the horse usually does not eat this but once they get a taste for it, it is apparently sweet enough that they keep going back for more. In this case the poisoning is a cumulative thing. Only certain parts of the plants or certain stages of their growth cycle are toxic as new growth, old growth before or after cutting, seeds or flower stages. The best recommendation I have is to become familiar with these plants mentioned and remove them and monitor growth on your pastures. Do not allow your horses to overgraze as this allows toxic weeds to proliferate and increase chance of being eaten. Monitor exposed roots that are toxic where soil erosion may have occurred. A horse's physical condition, diet and mental state affect its likelihood of being poisoned. Horses given regular exercise and fed regularly a well balanced diet are less likely to be poisoned as well. Pay attention to pecking orders. The boss horse might bully the young horse away from the feed and will end up feeding on whatever toxic or not. Please remember to call your vet if you are unsure of any poisoning.

-Dr. Wanda Schmeltz