Potentially poisonous plants for horses

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The livestock literature is full of lists of plants to avoid as forage. The adage "strong enough to kill a horse" most certainly does not apply when it comes to horses and poisonous plants. When considering the size of an average horse, it would be easy to assume that it would take huge amounts of any poisonous plant to be consumed to be harmful. Although this premise holds true in some cases, there are several plants that can affect a horse when very little has been ingested.

Perhaps the most notorious plant that comes to mind is the yew (Taxus spp.). Yews contain a toxic alkaloid that acts as a heart depressant and is fatal when only a small amount is consumed by the horse. Another plant to take great heed of is the infamous dogbane (Apocynum cannabinum) which causes death in a horse after eating less than an ounce.

Other extremely toxic plants that require only a few pounds or less to be ingested to cause death are poison hemlock (Conium maculatum), water hemlock (Cicuta spp.), red maple tree (Acer rubrum), black locust, pokeweed (Phytolacca americana), groundsel or ragwort (Senecio spp.), johnsongrass (Sorghum halepense), and horsetail (Equisetum arvense). Other problem trees found in and around pastures are the oaks (Quercus spp.) and horse chestnut (Aesculus hippocastanum).

Some poisonous plants are not lethal but can cause problems for horses none the less. The wood of the black walnut tree (Juglans nigra), if used in sawdust or shavings to bed stalls, will cause laminitis. Alsike clover (Trifolium hybridum) can cause photosensitivity on areas with white hair (feet, belly, nose), causing painful ulcers and blisters in the mouth.

Buttercup (Ranunculus repens), a common problem in pastures, can cause diarrhea, depression, blistering of mucous membranes of the gastrointestinal tract, and a wobbly gait. Tall fescue (Festuca arundinacea) should also be mentioned as it is a problem with pregnant mares; it can cause spontaneous abortions, increased gestation time along with mare and foal mortality.

Preventing plant poisoning in horses requires some thought and a little work:

- Learn to identify poisonous plants.
- Monitor your pastures for poisonous plants and eradicate them.
- Keep pastures mowed before weeds have a chance to grow and come to seed.
- Avoid overgrazing, which gives weeds a chance to take over.
- Make sure there is always enough forage for your horses (grass or hay) so they are not tempted to graze on less palatable weeds.
- Buy hay from a reputable dealer.

Periodically check hay for baled weeds.
And, finally, make sure your bedding contains no black walnut.

Several resources are available to help you identify poisonous plants. An excellent book is "Weeds of the Northeast" by R. H. Uva, J. C. Neal and J. M. Ditomaso. Several online sources that were used as references in this article are the ASPCA, University of Kentucky, Cornell University and Purdue.

On the campus of Delaware State University, the Claude E. Phillips Herbarium is Delaware's center for research, education and outreach about plant identification, locations, and uses. Call 302-857-6452 (Dr. Susan Yost) to arrange a tour of the Herbarium, and call 302-857-6408 (Dr. Arthur Tucker) for more information about this article.