



Second Chance Ranch Newsletter V. 2-7

Hungry, Hungry Horsey

Ty G.R. Lily

“Eat like a horse.” It’s a well known phrase, and to anyone who knows horses, it always inspires a laugh. After all, horses love to eat. And some horses will eat almost anything. But there a fair number of plants found in New England that can be very harmful to horses if ingested. It’s our job to know which plants can be toxic, when they are toxic and to be able to recognize those plants on sight, so they can be removed from your horse’s pasture or grazing grounds.

There is a lengthy list of plants that can be toxic to your horse – many more than can be covered in one article. Of the toxic New England plants, not all of them are found growing wild or would be likely to occur in a typical fenced grazing plot or pasture. Some of the plants would only be seen in ornamental garden settings or are more commonly occurring in areas not heavily traveled, such as the deep woods. Instead, I have chosen just five plants that are commonly found in New England and can be easily found in a pasture or grazing area. The five plants that will be covered are the Red Maple, Bracken Fern, Hemlock, Onions/Garlic and Milkweed.

Red Maple (*Acer rubrum*) is a typical maple with leaves that are broad and have three to five lobes. The “fruit” is a V-shaped structure, with two seeds that lie at the bottom of the V. Red Maple grows naturally over the entire eastern United States. It does well on both well-drained or moist, swampy soils. Although the toxic principle of red maples has not yet been determined, evidence seems to suggest that tannins may be involved in the destruction of the victim’s red blood cells. Fresh, wilted and dried leaves are toxic and ingestion of as little as 0.3 % of the body weight as leaves is toxic to horses. Symptoms include jaundice (indicated by yellow sclera of the eye), pale gums, dark reddish urine, depression, anemia and in blood tests, a low packed cell volume (PCV). There is no antidote

for Red Maple poisoning - the only treatment is supportive, such as blood transfusions and intravenous fluids. The best way to keep your horses safe is to remove all Red Maples from within or around grazing areas. If red maple poisoning is suspected, you should contact your vet immediately.

Bracken Fern (*Pteridium aquilinum*) is a fern found throughout the United States, typically in dry open woodland. Horse owners with pastures that include or abut woodlands would be most affected. The toxic element to Bracken Fern is Thiaminase. Thiaminase splits the essential vitamin thiamine (B₁) into inactive components, which then causes thiamine deficiency. Thiamine deficiency affects the central nervous system, and is displayed as depression, muscle tremors, uncoordinated gait, retinal degeneration and blindness, hemorrhaging and possible eventual cancer. Horses must consume a diet of 3-5% Bracken Fern for at least 30 days before any signs of poisoning appear. If Bracken Fern poisoning is suspected, call your vet so that the horse may be treated with intravenous doses of thiamine.

Poison Hemlock (*Conium maculatum*) is a member of the parsley family. The plants can grow up to 6 feet tall with smooth, hollow stems covered with purple spots. Leaves resemble those of parsley or carrots. Poison Hemlock grows on fertile, moist soils across the United States, particularly in locations such as woodlots, fencerows and waste areas. The toxic elements in Poison Hemlock are alkaloids, and the whole plant is toxic at approximately 1% of body weight. Poisoning is rapid, and animals may be found dead or die within a few hours. Some neurological signs include muscle tremors, muscular weakness, dim vision, convulsions, coma, frequent urination and defecation. Death results from respiratory failure. If you suspect that your horse has ingested Poison Hemlock, immediately call your vet! If caught soon enough, your vet may be able to evacuate the horse’s stomach contents and administer activated charcoal and respiratory support.

Onions/Garlic (*Allium*) can be easily found growing wild in pastures across New England or as a supplement in your horse's feed program. The toxic element in plants from the *Allium* family is a chemical called N-propyl disulfide. N-propyl depletes the red blood cell's ability to protect itself from oxidative damage, causing excessive amounts of red blood cells to become damaged and prematurely cleansed from your horse's body. This leads to anemia. The "toxic dose" of N-propyl disulfide is not definitive in any species, although one study published in 1972 in the "Journal of the American Veterinary Medical Association," the toxic dose in horses turned out to be considerably less than 5 grams per kilogram of body weight. Symptoms of poisoning include jaundice, anemia and dark reddish urine. If poisoning is suspected, call your vet and move your horse to a grazing area that does not have access to plants in the *Allium* family.

Milkweed (*Asclepias species*) can be found throughout the United States in open, sunny areas that may be either dry or swampy. Milkweed comes in two varieties – the whorled, narrow-leafed and the broad-leafed. Both forms are toxic. Plants in the milkweed are easy to distinguish because they release a white, milky juice from broken or cut surfaces and they have a seed-filled "pod". The toxin in milkweeds is called Galitoxin, and symptoms include profuse salivation, in coordination, violent seizures and colic. Death may occur from 1-3 days after ingestion of the milkweed. A toxic dose may be as low as 0.1 % - 0.5% of the animal's body weight. Milkweed is very common across New England, and can frequently be found in grazing areas. With access to adequate pasture, horses will typically avoid eating milkweed, and so eradication of the weed is not normally necessary. If milkweed poisoning is suspected, contact your vet for treatment and support.

This article covers only a few of the many possible "problem" plants you may discover in and around your farm. For a more comprehensive lists of plants that are found in your area, you can contact your local equine or agricultural extension office, your vet or research on your own using plant guides. There are a large number of plants that can be toxic for your horse, and it behooves any horse owner to know the plants most commonly found in their area by sight. Knowledge, preparation, and the willingness to act – to put in the effort to remove dangerous plant life from your horse's reach – is the best way to prevent future problems.

~ Paul's Corner ~

"You're only young once, but you can be immature forever."

SECOND CHANCE RANCH IS LOOKING FOR DONATIONS! SCR IS PLANNING ITS ANNUAL TACK AND EQUIPMENT SALE FUNDRAISER, AND NEEDS YOUR HELP! IF YOU HAVE OLD OR NEW EQUIPMENT OR TACK LOOKING FOR A NEW HOME, PLEASE CONSIDER DONATING IT TO SCR. ALL DONATIONS ARE TAX DEDUCTIBLE.

SCR is now part of several fundraising programs! We have worked out a partnership with www.tackoutlet.com, though shoppers must click on link through our website for a contribution to be made to SCR. Furthermore, we have enrolled in programs such as Country Supply's Care Program, Agway rewards, www.igive.com and www.cartidgesforcash.com. Please take a moment to visit these websites or the rewards page on our website: www.geocities.com/scrrescue Please see if there is any way you can make a difference in the lives of our animals.

SCR WOULD LIKE TO CONGRATULATE TOMMY AND FAMILY ON THEIR ADOPTION OF CRIMSON MIRACLE. HE IS A GREAT BOY, AND A GREAT TEACHER. WE WISH CRIMSON MIRACLE (JERRY) THE BEST OF LUCK IN HIS NEW HOME, WITH HIS NEW FOREVER FAMILY.

Horse's Rules and Etiquette

Snorting: Humans like to be snorted on. It is your duty as the family horse, to accommodate them.

Neighing: Because you are a horse, you are expected to neigh. So neigh - a lot. Your owners will be very happy to hear you protecting the barn and communicating with other horses.

Especially very late at night.

Chewing: Make a contribution to the architectural industry.... chew on your stall wall, the fence or any other wooden item.

Bedding: It is good manners to urinate in the middle of your freshly bedded stall to let your humans know how much you appreciate their hard work.

Dining: Always pull all of your hay out of the hay rack, especially right after your stall has been cleaned, so you can mix the hay with your fresh bedding. This challenges your human the next time they're cleaning your stall - and we all know how humans love a challenge.

Doors: Any door, even partially open, is an opportunity for you and your human to exercise. Bolt out of the door and trot around, just out of reach of your human, who will happily chase you. The longer it goes on, the more fun it is for all involved.

Nuzzling: Always take a BIG drink from your water trough immediately before nuzzling your human. Humans prefer clean muzzles and apparently, damp clothing.

Playing: If you lose your footing while frolicking in the paddock, use one of the other horses to absorb your fall so you don't injure yourself. Then the other horse will get a visit from the mean ol' vet, not you!

Visitors: Quickly determine which guest is afraid of horses. Rock back and forth on the cross-ties, neighing loudly and pawing playfully at this person. If the human backs away and starts crying, advance swiftly, stamp your feet, and neigh louder to show your concern.

FEATURED HORSE: Granny Smith

Granny Smith came to us on July 3, 2005 through a local auction with two other horses, Pip and Miss Marple. Granny is an older chestnut grade pony mare (approximately 13.2 hands high), exact age unknown.

Granny Smith is what we call a "desperate case", and as soon as we saw her at the auction house, we knew we could not leave her behind. Granny Smith is in "skin and bones" condition, has no front teeth, needs serious farrier attention and seems to have a problem with one of her shoulder joints that turns her elbow out. The auction house said she had been in their care for over a year, turned out in their back field to "die if that was what she wanted". Our hearts broke when we heard those words. All animals deserve better than to "die if they want", ignored in a back field.

Upon arrival, we weight taped her at approximately 730 lbs. Granny does have back molars still, as she can eat grass and grain if it is wet down to a mash. Granny eats with a hearty appetite, and seems to be gaining more energy every day. Throughout everything, she has so far remained very sweet.

Due to her severe condition, Granny is not yet up for adoption - she will require intensive rehab before we can evaluate her, though we are cautiously hopeful that she will recover. Once we feel she is stable, healthy and we have evaluated her fully, we will be looking for a forever companion home for her.

"A good man will take care of his horses and dogs, not only while they are young, but also when they are old and past service."

Plutarch

"We shall take great care not to annoy the horse and spoil his friendly charm, for it is like the scent of a blossom - once lost it will never return."

Pluvinel

"Cha chòir an t-each glan a chur uige." (The willing horse should not be spurred.)

Gaelic Proverb